



December 2017

## INTERNATIONAL CYANIDE MANAGEMENT CODE

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

**Submitted to:**

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

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REPORT



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**Distribution:**

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





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Important Information



## 1.0 INTRODUCTION

### 1.1 Operational information

**Name of Transportation Facility:** Australian Gold Reagents – Africa 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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## 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.

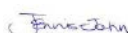
AGR's West Australian supply chain was re-certified as being in full compliance with the Code on 26 September 2016. The West Australian supply chain is not part of the scope of this audit.

### 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.

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## 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

This supply chain is a consolidation of AGR’s West African and Côte d’Ivoire Supply Chains. The Africa supply chain covers the land-based transportation of AGR’s solid cyanide from the ports of Dakar, Senegal, Takoradi, Ghana, Tema, Ghana, Walvis Bay, Namibia and Abidjan, Côte d’Ivoire to end point users. Bolloré, Burkina Logistics and Mining Services (BLMS), FP Du Toit transport, Freight Forwarders Tanzania (FFT) and Vehrad transport are the contracted transporters.

FFT is currently used as a carrier within AGR’s East African Supply Chain (Tanzania). Tanzania is not included within the scope of this Supply Chain and FFT’s carrier services will not be used beyond the end of 2017.

### 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 Dakar, Senegal

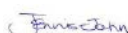
The Port of Dakar is the main container port servicing Senegal; the port allows for the unloading of cyanide shipments and the subsequent road transportation onto mine sites located within Senegal or Mali. The port of Dakar is operated by the Port Autonome de Dakar, which is a State Government Enterprise.

The container terminal within the port is owned and operated by DP World, which has a 25-year concession granted to them by the Senegalese Government that commenced on 1 January 2008. The port offers year-round direct access with no tidal restrictions, as such the facility is a regular port of call for vessels southbound from Europe. Road network connections offer swift transit times for cargo bound for Guinea-Bissau, Mauritania, and Gambia and an on-site rail terminal provides access to Bamako, Mali. The container Terminal is situated in the Northern Zone of the port and covers an area of approximately 24 ha, annual throughput is approximately 300 000 Twenty-foot Equivalent Units (TEUs) and increasing.

#### 2.4.2.2 Port of Takoradi, Ghana

The port of Takoradi is located 230 km east of Accra. Takoradi is strategically positioned to service the northern hinterland of Ghana and serve as an alternative port for economic operators in the landlocked countries of Burkina Faso, Niger and Mali. In 2015, the port handled 27% of Ghana’s seaborne traffic, 68% of Ghana’s seaborne exports and 15% of Ghana’s seaborne imports. Major commodities handled through the port are manganese, bauxite, wheat, bulk and bagged cocoa, quicklime, containerised cargoes, equipment for the mining and oil/gas industry. Traffic through the port is facilitated by leading shipping lines and the port’s wide range of equipment along with stevedoring services provided by the private sector enable it to offer a wide range of services.

AGR Africa Supply Chain  
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Cyanide manufacturers and suppliers have the ability to ship product to the port from different parts of the world. The port allows for the unloading of shipments for final road transportation to the mining operations in Ghana as well as Burkina Faso and Eastern Mali.

### **2.4.2.3 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, Roll-on/Roll-off (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 TEU capacity 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 for the unloading of shipments for final road transportation to the mining operations in Ghana as well as Burkina Faso and Eastern Mali.

### **2.4.2.4 Port of Walvis Bay, Namibia**

The port of Walvis Bay is Namibia's largest commercial port. Walvis Bay is strategically located halfway down the coast of Namibia, with direct access to principal shipping routes, Walvis Bay is a gateway for international trade in Namibia. Operated by NAMPORT, the National Port Authority, the container terminal currently handles approximately 400 000 TEUs per annum. The Port of Walvis Bay allows for the unloading of cyanide shipments from vessels and onto trucks, and the subsequent road transport onto to mine sites in Namibia. Walvis Bay is a sheltered deep-water harbour benefiting from a temperate climate.

### **2.4.2.5 Port of Abidjan, Côte d'Ivoire**

The Port of Abidjan is the main port of the Côte d'Ivoire (Ivory Coast) in Africa. Lying on the Ebrie Lagoon, it is linked to the Gulf of Guinea and Atlantic Ocean by the Vridi Plage sandbar.

The Port of Abidjan is West Africa's largest, most modern port. With a central location and a well-developed infrastructure, it is a major point for transshipments into West and Central Africa over the Côte d'Ivoire's network of rail and road systems. Since the opening of the Vridi Canal, the Port of Abidjan has handled nearly all commercial trade for the Côte d'Ivoire.

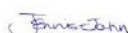
The Port of Abidjan has a total quay length of six km and there are 34 berths dedicated for timber, cereals, fruits, petroleum products and containers. The Port of Abidjan can accommodate vessels up to 260 m long, depth at the harbour's mouth is 10.5 m, and the depth at quay is 12.5 m. The port provides approximately 408 000 m<sup>2</sup> of open storage and 144 m<sup>2</sup> of covered warehouses and sheds. Three berths specialise in container-handling, and one berth is devoted to roll-on/roll-off cargoes.

## **2.4.3 Road transportation**

AGR contracts the road transportation of cyanide within the Supply Chain to Bolloré, BLMS, FP Du Toit, FFT and Vehrad, where deliveries are effected on behalf of AGR.

Some transportation from the ports of Dakar, Takoradi, Tema, Walvis Bay and Abidjan are effected by end user arranged transportation.

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### **2.4.3.1 Bolloré Logistics, France (Bolloré)**

The Bolloré Group was founded in 1822. Bolloré Logistics' range of services extends across five core categories: multimodal transport, customs and regulatory compliance, logistics, global supply chain and industrial projects.

The Africa transportation arm of the Group is managed by Bolloré Logistics (France), which has been established for more than 50 years. The company is involved in port activity, freight forwarding, stevedoring and railway transport, as well as providing international logistics solutions. Bolloré Africa Logistics is one of the largest transport and logistics operators in Africa.

Bolloré was recertified as being fully compliant with the Code on 14 October 2016.

### **2.4.3.2 Burkina Logistics and Mining Services (BLMS)**

BLMS is a subsidiary of Bolloré Logistics and was formed in July 2008 to service the developing mining industry within Burkina Faso. The company specialises in the transport and logistics of dangerous goods. BLMS conducts the transport of hazardous goods for Bolloré Logistics in Burkina Faso and operates out of the Bolloré offices in Burkina Faso.

Bolloré's Burkina Faso Supply Chain, which includes the transporter BLMS, was recertified as fully compliant on October 14, 2016.

### **2.4.3.3 FP Du Toit Transport Pty Ltd (FP Du Toit)**

FP Du Toit acquired Wesbank in 2015, Wesbank is now a division within the FP Du Toit Transport Group. Wesbank works closely with the mining industry and specialises in long and short-haul service, chemical and hazardous cargo transportation, as well as specialised handling of large (break bulk) cargo types.

Wesbank's operations are located on four hectares of land in Walvis Bay. The facilities incorporate Wesbank's head office, an in-house weighbridge, an integrated synchronised fuel system, a tarpaulin cleaning system, a vehicle satellite tracking office and overnight facilities.

FP Du Toit was recertified as being fully compliant with the Code on 21 June 2017.

### **2.4.3.4 Freight Forwarders Tanzania (FFT)**

FFT is a freight forwarding and transportation organisation within Dar es Salaam and other areas of Tanzania.

Freight Forwarders Tanzania views itself as a market leader in the Clearing and Forwarding Industry in East Africa. FFT's sister company, Freight Forwarders Kenya is closely linked with FFT.

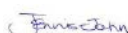
FFT was recertified as being fully compliant with the Code on 15 May 2015. AGR will cease using FFT at the end of 2017.

### **2.4.3.5 Vehrad Transport and Haulage Co Ltd (Vehrad)**

Vehrad is contracted to transport solid cyanide by road from Tema and Takoradi ports to mines in Ghana, Burkina Faso, Niger and Mali. Vehrad's main operations base is located at Plot 16/17, Heavy Industrial Area, Tema, Ghana, (Tema yard), located approximately 2 km from the Tema harbour, within the greater Accra region.

Vehrad was recertified as being fully compliant with the Code on 26 January 2015.

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## 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.

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Name of Facility

  
Signature of Lead Auditor

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**2.6 Auditors findings and attestation**

in full compliance with

**AGR is:**  in substantial compliance with **Cyanide Management Code**

not in compliance with

No significant cyanide exposures or releases were noted to have occurred during AGR's Africa 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		21 December 2017

**Dates of Audit**

The Recertification Transport Audit of AGR's Africa 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 Africa Supply Chain  
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Signature of Lead Auditor

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### 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 routes to minimise the potential for accidents and releases.

AGR 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:**

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 conduct 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.

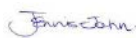
AGR implements a procedure to evaluate the risks of selected cyanide transport routes and takes the measures necessary to manage these risks.

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.

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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.

Cyanide is transported by ICMC-certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.1.2 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.**

AGR is  in full compliance with **Transport Practice 1.2**  
 in substantial compliance with  
 not in compliance with

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

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 Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.1.3 Transport Practice 1.3**

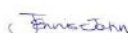
**Ensure that transport equipment is suitable for the cyanide shipment.**

AGR is  in full compliance with **Transport Practice 1.3**  
 in substantial compliance with  
 not in compliance with

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

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

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Name of Facility

  
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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.

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.

Cyanide is transported by ICMC-certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.1.4 Transport Practice 1.4**

**Develop and implement a safety program for transport of cyanide.**

AGR is  in full compliance with **Transport Practice 1.4**  
 in substantial compliance with  
 not in compliance with

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

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

AGR’s cyanide is packaged at its ICMC-certified cyanide production facility in Kwinana, Western Australia, in accordance with the packaging and labelling requirements required by the political jurisdictions through which the load will pass. Individual IBCs are loaded into sea containers that are sealed prior to departure from the facility.

AGR, through the use of ICMC-certified road carriers, has a process to ensure that cyanide is transported in a manner that maintains the integrity of the packaging. AGR has undertaken audits of the carriers to verify that they continue to meet both the ICMI and AGR’s requirements.

Cyanide is transported by ICMC certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.1.5 Transport Practice 1.5**

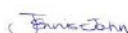
**Follow international standards for transportation of cyanide by sea and air.**

AGR is  in full compliance with **Transport Practice 1.5**  
 in substantial compliance with  
 not in compliance with

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

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

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AGR does not directly transport consignments of cyanide by sea within the scope of this Supply Chain.

AGR’s Ocean Freight Supply Chain covers the marine transportation of cyanide from the port of Fremantle, Western Australia, to various interstate and international ports. The carriers used are MSC, Maersk and K Line.

Due diligence reviews of the ports of Dakar, Takoradi, Tema, Walvis Bay and Abidjan 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 Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

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 transport.**

in full compliance with  
**AGR is**  in substantial compliance with **Transport Practice 1.6**  
 not in compliance with

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

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

AGR, through the use of ICMC-certified road carriers, has a process in place to track cyanide shipments and prevent losses during transport. AGR has undertaken audits of the carriers to verify that tracking capabilities and suitable arrangements for response are in place.

Inventory controls, marine transportation and chain of custody documentation processes are implemented to prevent the loss of cyanide during transportation.

AGR requires its carriers to implement inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment.

Cyanide is transported by ICMC-certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

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Signature of Lead Auditor

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### 3.2 Principle 2 – Interim Storage

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

#### 3.2.1 Transport Practice 2.1

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

in full compliance with  
**AGR is**  in substantial compliance with **Transport Practice 2.1**  
 not in compliance with

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

AGR 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.

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 transshipment 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 Dakar, Takoradi, Tema and Walvis Bay, 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.

For the port of Abidjan; the containers of cyanide are unloaded from the vessels and loaded directly onto road transport trailers supplied by an ICMC certified transporter.

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### 3.3 Principle 3 – Emergency Response

**Protect communities and the environment through the development of emergency response 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 Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

#### 3.3.2 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.

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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 Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.3.3 Transport Practice 3.3**

**Develop procedures for internal and external emergency notification and reporting.**

in full compliance with

**AGR is**

in substantial compliance with

**Transport Practice 3.3**

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.

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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 transported by ICMC-certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.3.4 Transport Practice 3.4**

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

AGR 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:**

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

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.

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 transported by ICMC certified consignors Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

**3.3.5 Transport Practice 3.5**

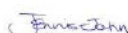
**Periodically evaluate response procedures and capabilities and revise them as needed.**

AGR 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:**

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

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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 Bolloré, BLMS, FP Du Toit, FFT and Vehrad.

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## **4.0 DUE DILIGENCE**

### **4.1 Port of Dakar**

The port of Dakar is utilised as part of AGR’s Africa Supply Chain. The due diligence of the port, dated 1 August 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).

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**


The Port of Dakar is operated by the Port Autonome de Dakar, which is a State Government Enterprise. AGR has the ability to ship to this port by utilising either Maersk or MSC shipping lines. Container shipments are unloaded at the port and readied for the subsequent road transportation to mines site located within Senegal or Mali.

The vessels operated by Maersk and MSC, which handle AGR’s shipping requirements to Dakar, use the services of DP World for their unloading and stevedoring requirements.

The Container Terminal situated in the Northern Zone of the port of Dakar covers an area of 24 ha and approximately 700 m of linear quay with three berths dredged from 12 to 13 m. The three berths are:

- TAC 1 that is the park located on the wharf
- TAC 2 that is located in second zone
- TAC 3 reserved for empty containers.

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The container terminal is owned and operated by DP World. Up-to-date equipment is available for handling services including four wharf gantry cranes (two of which are Post-Panamax), four Gottwald cranes on tyres, 10 yard gantry cranes, 15 reach stackers, 400 plugs and sockets for reefer containers, 30 terminal tractors and trailers. The Container Terminal has an annual traffic of around 300 000 TEUs, and is constantly growing.

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.

#### **4.1.2 Stevedoring**

DP World manages its own stevedoring operations with labour drawn from the SATS Office: Transport Workers Union of Senegal. All stevedoring personnel undergo regular training by DP World which includes undertaking a full medical on an annual basis. All stevedoring personnel and other DP World personnel are subject to random alcohol and drug testing.

#### **4.1.3 Dangerous goods**

Containers of dangerous goods discharged by vessels at the container terminal are currently being moved by DP World to a dedicated storage area for all dangerous goods. This area has minimal traffic flow and is large enough to allow space for appropriate segregation of different classes of dangerous goods. Containers of cyanide are segregated from other classes of dangerous goods in accordance with the internationally agreed segregation chart. As a general rule containers of cyanide are usually collected from the port within three days of discharge from the vessel.

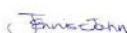
#### **4.1.4 Emergency response**

There are fire engines and ambulance facilities located a short distance from the port who would respond in the event of any emergency.

#### **4.1.5 Security**

The Terminal has a state of the art CCTV surveillance system ensuring the security of goods at any time. The implementation of strict internal controls via a badge reading systems and a state of the art surveillance system contribute to the optimisation of operations and cargo security. Certification ISO 28000 was obtained by DP World. Full security checks are made at all entry and exit points.

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#### **4.1.6 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 provides them with 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 Maersk or MSC to take its shipments to Dakar. This port is owned by the Port Autonome de Dakar and the discharge terminal is operated by DP World. The stevedoring activity performed by DP World is to remove the shipping containers from the vessel and place the shipping containers in the designated dangerous goods storage area, for temporary storage until customs clearance has been obtained.

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 are from the ICMI accredited transport company.

#### **4.1.7 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 Maersk or MSC 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 terminal operators and or port authorities upon arrival.

Maersk and MSC also comply with storage requirements, the container booking and tracking system manages the stowage and separation positions of all dangerous goods containers on their vessels to ensure compliance with international regulations.

#### **4.1.8 Compliance with Transport Practice 1.6**

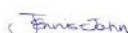
The stevedoring company receive the vessels manifest, which includes the containers for unloading and handling by them. This information is then captured in the container terminal software program. This program then assists with the location where each container from the vessel is to be placed for storage or in the case of all dangerous goods, the containers are to be placed onto trucks for immediate departure from the port area. As a general rule, containers of cyanide are to be collected from the port within three days of discharge from the vessel.

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

The cyanide containers are labelled, placarded and signed appropriately to alert workers to the contents. The Dangerous Goods storage area within the port has full CCTV coverage, is fully lit at night and the whole of the port area has controlled access.

The product is kept in the shipping containers ready for loading onto transport to the mine site and remains in the containers that were packed at the production facility. The containers are not opened and kept sealed until they arrive at customer mine sites. The containers are placed on a concrete surface within the port area which has a safe floor loading factor.

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The sodium cyanide packaging has a sealed plastic liner that stops the contact of product from moisture or humidity. The packaging is not handled and remains in the shipping containers (sealed), which are placed in the designated area in the warehouse yard, containers are placed in open air area and are not in a confined space.

DP World is in possession of an Emergency Procedure Guide developed especially for cyanide and a copy of the Material Safety Data Sheet.

DP World undertakes emergency response exercises at least once a year although this not cyanide specific. Specific emergency response exercises for cyanide will be undertaken on at least an annual basis from now on.

## **4.2 Ports of Takoradi and Tema**

The ports of Takoradi and Tema are utilised as part of AGR's Africa Supply Chain. The due diligence of the port, dated 1 April 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.

### **4.2.1 Overview of port**

The port of Tema near Accra is the main container port servicing Ghana and its landlocked neighbouring countries; the port of Takoradi, in south west Ghana, is suitably located to service the mining industry located near the town of Tarkwa.

AGR has ability to ship to these ports in Ghana by utilising either Maersk or MSC shipping lines. Container shipments are unloaded at the port and readied for the subsequent road transportation to the mining operations in Ghana as well as Burkina Faso and Eastern Mali.

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The Ghana Ports and Harbour Authority (GPHA) oversees the operation of the overall port operations in both Tema and Takoradi ports. The Meridian Port Services Ltd (MPS) is the stevedoring company that manages the on shore (wharf) operations in Tema. In order to reduce congestion within the MPS terminal, the GPHA approved the use of bonded terminals located 500 m outside of the MPS terminal.

All containers of cyanide shipped by AGR are collected by Tema Bonded Terminal transport vehicles and taken from the MPS Terminal to the Tema Bonded Terminal for temporary storage.

The GPHA 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**

MPS, a joint venture between the GPHA and Meridian Port Holdings Limited, is the stevedoring company which manages the on shore (wharf) operations in the Port of Tema. Golder understands that the GPHA manage the stevedoring activities and the Port of Takoradi.

MPS's operations at the Port of Tema include:

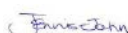
- Handling of the containers whether full or empty on and off the vessels
- Management of container storage areas
- Port security
- Emergency response
- Managing control systems for companies and their vehicles collecting and or delivering containers.

MPS operates software programmes that control container movement within the Port of Tema. In the case of the cyanide containers, on arrival to port the containers are stacked separately and segregated from other containers. The software is used to monitor 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.

#### **4.2.3 Security**

Both Tema and Takoradi Ports are ISPS compliant. All port installations are covered by 24-hour CCTV surveillance plus trained security personnel are based on site. Port security comprises: 24-hour automated surveillance systems (CCTV), a security work force manning all port zones plus entrance and exit gates with controlled/restricted access. There is also collaboration with Port and Harbours police and with Naval personnel for sea side patrols.

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#### **4.2.4 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 provides them with 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 Maersk or MSC to take its shipments to the ports of Tema and Takoradi in Ghana. 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 dangerous goods storage area in an off dock bonded terminal. If containers are placed on the wharf they will be later removed by in-port transport to a designated 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 are from the ICMI accredited transport company.

#### **4.2.5 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 Maersk or MSC 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 terminal operators and or port authorities upon arrival.

Maersk and MSC also comply with storage requirements, the container booking and tracking system manages the stowage and separation positions of all dangerous goods containers on their vessels to ensure compliance with international regulations.

#### **4.2.6 Compliance with Transport Practice 1.6**

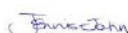
GPHA receive the vessel manifests, which includes the containers for unloading and handling by the port stevedores. This information is then captured in the port container terminal software programme. These programmes assist with identifying the locations where each container should be placed from each vessel. In addition, GPHA and MPS utilise a designated area in their terminal for the cyanide consignments. This ensures that they comply with the segregation requirements. Once the clearing and port formalities are complete the consignment is collected from the port by Bolloré Logistic Services or Vehrad Transport & Haulage Ltd, the designated ICMI accredited road transporters.

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

The cyanide containers are labelled, placarded and signed appropriately to alert workers to the contents. General dangerous goods warning and safety signs are present at the port but these are not cyanide specific. All port areas have 24 hour CCTV surveillance plus professionally-trained security personnel who man all port zones as well as the entrance and exit gates.

Containers of cyanide are taken from the vessels and transported by terminal trucks to a designated dangerous goods area within the Tema Bonded Terminal. Containers of dangerous goods stored within this area are segregated according to international dangerous goods segregation requirements.

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Cyanide product remains in the IBC containers that were packed at the production facility. The cyanide packaging has a sealed plastic liner which stops the contact of product with moisture or humidity.

Ghana Ports and Harbours Authority has an Emergency Response Procedure that includes emergency response provisions for cyanide, as one of the hazardous cargoes that pass through the port.

### **4.3 Port of Walvis Bay**

The Port of Walvis Bay is utilised as part of AGR's Africa Supply Chain. The due diligence of the port, dated 1 August 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).

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

#### **4.3.1 Overview of port**


The Port of Walvis Bay is the main container port servicing Namibia; AGR has the ability to ship to Walvis Bay by utilising either Maersk or MSC shipping lines. Container shipments are unloaded at the port and readied for the subsequent road transportation section to the Navachab gold mine.

The Port of Walvis Bay is operated by the National Port Authority (Namport), which is a Republic of Namibia Government Enterprise. The container terminal currently handles approximately 400 000 TEUs per annum. The vessels operated by Maersk and MSC, which handles AGR's shipping requirements to Namibia, use the services of the Walvis Bay Stevedoring Company for their unloading and stevedoring requirements.

Namport 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.

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- 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.

### **4.3.2 Stevedoring**

The stevedoring company at the Port of Walvis Bay is Walvis Bay Stevedoring; they manage the onshore (wharf) operations at the dedicated container terminal. This is the terminal currently used by Maersk and MSC 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 programmes 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.

### **4.3.3 Dangerous goods**

Containers of dangerous goods discharged by vessels at the container terminal are moved to a dedicated storage area for all dangerous goods cargo. Within this area the containers are segregated according to a hazardous segregation chart. The containers remain in this area until customs clearance has been completed and transport arranged. The due diligence also notes that as a general rule containers of cyanide are usually collected from the port within 48 hours of discharge from the vessel.

### **4.3.4 Emergency response**

The port has a fire engine within the terminal and a fully staffed police station has been present since June 2002. Namport also has the following written procedures:

- Systems procedures – Emergency Preparedness and Response
- Operating procedures – Handling of Dangerous Goods.

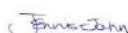
Emergency response exercises are regularly conducted within the port.

### **4.3.5 Security**

Regarding safety and security, the due diligence indicates that terminal has a CCTV surveillance system in place and conducts full security checks at the entry and exit points.

The International Ship & Port Security (ISPS) Code was adopted by the International community with the aim to minimise the likelihood of a threat against the international supply chain. In line with this, Namport has been awarded a Compliance Statement with the ISPS Code.

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#### **4.3.6 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 provides them with 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 Maersk or MSC to take its shipments to the port of Walvis Bay in Namibia. The stevedoring activity performed by the Walvis Bay Stevedoring Company is to remove the shipping containers from the vessel and place the shipping containers on the wharf for temporary storage. Following final customs clearance, the containers will then be placed on road transport vehicles for the inland transport to the Navachab gold mine. These road transport vehicles are from Wesbank Transport who are an ICMI accredited transport company.

#### **4.3.7 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 Maersk or MSC 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 terminal operators and or port authorities upon arrival.

Maersk and MSC also comply with storage requirements, the container booking and tracking system manages the stowage and separation positions of all dangerous goods containers on their vessels to ensure compliance with international regulations.

#### **4.3.8 Compliance with Transport Practice 1.6**

Namport receives the vessel's manifest, which includes the containers for unloading and handling by them. This information is then captured in the container terminal software programme. This programme then assists with the location where each container from the vessel is to be placed for storage.

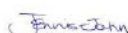
Once the clearing and port formalities are complete the consignment is collected by the road transport company.

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

The cyanide containers are labelled, placarded and signed appropriately to alert workers to the contents. General dangerous goods warning and safety signs are present at the port but these are not cyanide specific. The container storage area has full CCTV coverage, is fully lit at night and the whole of the port area has controlled access.

The containers of cyanide are stored in a separate dangerous goods storage area.

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Cyanide product remains in the IBC containers that were packed at the production facility. The cyanide packaging has a sealed plastic liner that stops the contact of product with moisture or humidity. The containers are not opened until the final destination. The containers are stored on a concrete surface at the port.

Namport has an Emergency Procedure Guide that has been developed especially for cyanide. Namport also undertakes emergency response exercises at least once a year, although these are not cyanide specific.

#### **4.4 Port of Abidjan**

The port of Abidjan is utilised as part of AGR's Africa Supply Chain. The due diligence of the port, dated 1 August 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).

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

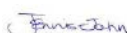
##### **4.4.1 Overview of port**

The Port of Abidjan is the main port and is located in the largest city of the Côte d'Ivoire in Africa. The port is currently owned by the Port Automome D'Abidjan. AGR has ability to ship to this port by utilising the Maersk or MSC Shipping lines. Container shipments are unloaded at the port and readied for the subsequent road transportation section from port to customer (Endeavour Mining Agbaou and Ity gold mines located north-west of the port city of Abidjan within the Côte d'Ivoire). Road transport to the mine site is undertaken by the Bolloré Logistics Transportation Division.

The Bolloré Logistics Container Terminal is located within the port and is utilised as part of AGR's cyanide supply chain within the Côte d'Ivoire.

The Bolloré Group commenced operations in Africa more than 50 years ago. In 2004 Bolloré Logistics was awarded the 15-year concession for the container terminal at the port of Abidjan and has since undertaken a programme to modernise the container terminal in order to increase the yard's container storage capacity.

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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.

#### **4.4.2 Stevedoring**

The stevedoring operations are managed by Bolloré Logistics using their own labour supply.

The TEUs are discharged from the vessel using the ship to shore Gotwald gantry cranes. These cranes are rated to handle lifts up to 60 tonnes. The weight of AGR's sodium cyanide containers is well within the specified weight limit for these cranes.

The manifest which is handed over from the vessel operator to port operator will include the weight and any of the hazards associated with the containers. The containers are then loaded directly from the gantry cranes onto trailers owned and maintained by Bolloré Logistics Transport Division for direct delivery out of the port under controlled convoys to the mine sites in Côte d'Ivoire.

Bolloré Logistics is very aware of the sodium cyanide product being shipped into Côte d'Ivoire as they not only handle cyanide from AGR Australia, but also from other countries who supply the Côte d'Ivoire mining operations.

#### **4.4.3 Emergency response**

The due diligence assessed emergency response and the capacity of the port to contain any spilled cyanide materials and minimise the extent of a release and ascertained that the Port has suitable procedures and resources in place for emergencies.

The Bolloré Logistics Container Terminal is in possession of an Emergency Procedure Guide especially developed for Cyanide and a copy of the Material Safety Data Sheet. Bolloré Logistics Container Terminal has their own emergency response team who undertake Emergency Response Exercises monthly, although these are not Cyanide specific.

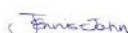
Firefighting equipment is located within the Bolloré Logistics Container Terminal and a fully equipped fire engine is located a short distance outside the terminal.

A well-equipped medical facility is based at the Bolloré Logistics Container Terminal comprising of a medical centre, ambulance and this is staffed by at least one Doctor and Nurse who on are on duty 24/7.

AGR presented Bolloré Logistics with its Transport Safety Product Awareness and Handling video. This video includes emergency response information and what to do in the case of a spill incident

Bolloré Logistics Container Terminal has a mobile bund available to contain any spillage from any container.

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#### **4.4.4 Security**

The due diligence review assessed security measures at the Port and ascertained that the Port facility is monitored under the CCTV surveillance system ensuring the security of goods at all times including video cameras installed at strategic locations in the terminal. The due diligence review stated that safety and security measures were evident throughout the tour, as well as experienced in gaining entrance to and exiting the Port.

#### **4.4.5 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 provides them with 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 Maersk or MSC to take its shipments to the port of Abidjan in Côte d'Ivoire. The stevedoring activity is to remove the shipping containers from the vessel and place them directly onto trailers supplied by Bolloré Logistics Transport Division. The containers will then be transported to the gold mine (final destination). Bolloré Logistics Transportation Division is fully certified under ICMI.

#### **4.4.6 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 Maersk or MSC 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 terminal operators and or port authorities upon arrival.

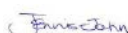
Bolloré Logistics Container Terminal, as stevedores, receive a ships manifest from the vessel upon arrival at the port, information is also obtained once the pre-clearing of the consignment is started.

Maersk and MSC also comply with storage requirements, the container booking and tracking system manages the stowage and separation positions of all dangerous goods containers on their vessels to ensure compliance with international regulations.

#### **4.4.7 Compliance with Transport Practice 1.6**

Bolloré Logistics Transport Division receives the vessels manifest, which includes the containers for unloading and handling by them; information is also obtained once the pre-clearing of the consignment is started. This information is then captured in the container terminal software program. The containers are then loaded directly from the gantry cranes onto trailers owned and maintained by Bolloré Logistics Transport Division for direct delivery out of the port under controlled convoys to the Endeavour Mining Agbaou and Ity gold mines in the Côte d'Ivoire.

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

The cyanide containers are labelled, placarded and signed appropriately to alert workers to the contents. General dangerous goods warning and safety signs are present, though these are not cyanide specific.

Containers of cyanide are not stored at the port and are taken directly onto road transport vehicles for immediate transport to the Endeavour Mining Agbaou and Ity gold mines. The product is in shipping containers ready for loading for onward transport to the mine site and remain in the containers that were packed at the production facility (the sodium cyanide packaging has a sealed plastic liner which stops the contact of product from moisture or humidity). The containers are not opened and are kept sealed until they arrive at the mine site.

The transport vehicles are escorted by the escort vehicle of Bolloré Logistics Transportation division as well as representatives from:

- The Permanent Secretary against Trading of Chemical Weapons
- The Environmental Ministry
- The Republic Force of Côte d'Ivoire (Army).

The due diligence review assessed security measures at the port and ascertained that the port facility is monitored by a CCTV surveillance system ensuring the security of goods at all times including video cameras installed at strategic locations in the terminal. The due diligence review stated that safety and security measures were evident throughout the tour, as well as experienced in gaining entrance to and exiting the port.

The due diligence review assessed the capacity of the port to contain any spilled cyanide materials and minimise the extent of a release and ascertained that the Bolloré Logistics Container Terminal is in possession of an Emergency Procedure Guide especially developed for cyanide and a copy of the Safety Data Sheet.

Bolloré Logistics Container Terminal has a mobile bund available to contain any spillage from any container.

Bolloré Logistics Container Terminal undertakes Emergency Response Exercises monthly although these are not cyanide specific.


#### **4.5 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**

A handwritten signature in blue ink that reads "Jaclyn Ennis-John".

Jaclyn Ennis-John  
Senior Environmental Scientist

CC/JEJ/hn

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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.

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.

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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.**

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