



September 2011

INTERNATIONAL CYANIDE MANAGEMENT  
CODE CYANIDE

PT Trans Continent  
Indonesian Supply Chain  
Certification Audit, Indonesia,  
Summary Audit Report

**Submitted to:**

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REPORT

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### APPENDIX A

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## 1.0 INTRODUCTION

### 1.1 Operational Information

<b>Name of Transportation Facility:</b>	PT Trans Continent Indonesian Supply Chain
<b>Name of Facility Owner:</b>	Not Applicable
<b>Name of Facility Operator:</b>	PT Trans Continent
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### 1.2 Description of Operation

#### 1.2.1 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.

### 1.3 Audit Scope

The scope of this audit is the PTTC Indonesian Supply Chain which covers the transportation of cyanide from the Port of Ulsan in South Korea to PT Nusa Halmahera Mineral's (NHM) Gosowong Gold Mine on Halmahera Island in North Maluku, Indonesia and Meares Sopotang Mineral Gold Mine and Tambang Tonando Nusajaya (MSM/TTN) in North Sulawesi, Indonesia. This specifically includes:

- Ports:
  - The Port of Ulsan in Korea
  - The International Port in Surabaya
  - The Domestic Port in Surabaya
  - The Domestic Port of Bitung in Manado

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- Marine transportation from:
  - The Port of Ulsan in Korea to the International Port in Surabaya
  - The Domestic Port in Surabaya to the Port of Bitung in Manado
  - The Port of Bitung in North Sulawesi to Barnabas Port at Halmahera Island
  - The Domestic Port in Surabaya to Barnabas Port at Halmahera Island
- Road transportation of solid cyanide (intermediate bulk containers (IBCs)) within freight containers by PTTC and subcontractors between:
  - The Domestic and International Ports in Surabaya
  - The Port of Bitung to PT Meares Sopotan Mining (MSM/TTN)

The scope of the audit did not include:

- The Barnabas Port at Halmahera Island
- The transportation from Barnabas Port at Halmahera to NHM's Gosowong Gold Mine.

## 1.4 Sodium Cyanide Transportation

PTTC coordinates the transport of cyanide from Tongsoh Petrochemical Corporation in South Korea, to NHM on Halmahera Island in North Maluku, Indonesia and MSM/TTN in North Sulawesi, Indonesia.

The cyanide product is manufactured and packed by Tongsoh Petrochemical Corporation, an ICMC certified producer in South Korea. The product is packed firstly into IBC's and then into shipping containers for transport to their customers in Indonesia.

The shipping containers are transported by Samik Logistics, to the Port of Ulsan's DongBang Container Terminal Co Ltd (DCT) and stored in a dedicated Dangerous Goods storage facility on the port pending shipment to the Surabaya International Port of via WHL.

International freight delivered to Surabaya International Port is unloaded and taken to the International container yard. The cyanide is trucked between the Surabaya International Port and Surabaya Domestic Port by PTTC.

The NHM mine is located on the north-western coast of Halmahera Island and cyanide is shipped to a private wharf at Tanjung Barnabas using landing crafts (LCTs).

The MSM/TTN mine is located at the northern tip of North Sulawesi and cyanide is shipped to the Port of Bitung approximately 29 km to the south of the mine. The cyanide is trucked between the Port of Bitung and MSM/TTN mine by PT Misa Utara.

### 1.4.1 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.

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## **1.4.2 Marine Transportation**

PTTC have an agreement with freight forwarders ACS to use only shipping companies which have had a due diligence assessment to ship from the Port of Ulsan to Indonesia. At the time of writing this report, this only includes WHL.

### **1.4.2.1 Wan Hai Lines**

WHL was founded in 1965, and engaged in the international shipping services throughout the Pacific and Indian Oceans. As of 2004 WHL operated 66 container vessels with the capacity to handle over 90 000 twenty foot equivalent units (TEU). WHL has subsidiaries and agents over Asia's major cities and ports.

### **1.4.2.2 PT Pelayaran Bunga Mahakam Perkasa – Samarinda**

LCTs belonging to PT Pelayaran Bunga Mahakam Perkasa – Samarinda are chartered by PTTC for the transport of cargo along the following shipping routes:

- The Port of Bitung in Manado to Barnabas Port at Halmahera.
- The Domestic Port in Surabaya to Barnabas Port at Halmahera.

### **1.4.2.3 PT Tanto Intim Line**

Vessels belonging to PT Tanto Intim Line are chartered by PTTC for the transport of cargo along the following shipping route:

- The Domestic Port in Surabaya to the Port of Bitung in Manado, North Sulawesi.

## **1.4.3 Ports**

### **1.4.3.1 Port of Ulsan**

The Port of Ulsan lies on the south-eastern shores of South Korea facing the Sea of Japan. The Port of Ulsan is about 50 kilometres northeast of the Port of Busan and about 60 kilometres south of the Port of Pohang.

### **1.4.3.2 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 meters long with alongside depth of 10.5 meters) and the Domestic Wharf (450 meters long with alongside depth of 7.5 meters). The International Container Yard covers 29 hectares and has capacity for 30 thousand TEUs and 250 reefer pugs. The Domestic Container Yard covers nine hectares and has capacity for nine thousand TEUs of containerized cargo. The Container Freight Station includes a 10 thousand square meter stacking area and 6.5 thousand square meters for dangerous goods. The terminal also has two rail tracks of 420 meters.

### **1.4.3.3 The Port of Bitung**

The Port of Bitung is the main deep-water port of North Sulawesi, located approximately 47 kilometres from Manado.

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**1.4.4 Road Transportation**

**1.4.4.1 PT Trans Continent**

PTTC has a fleet of trucks that are used to transport cyanide between PTTC’s Transit Storage area located at the Port of Bitung and MSM/TTN.

**1.4.4.2 PT Hacaca Setio Abadi**

PT Hacaca Setio Abadi (Hacaca) is an Indonesian transportation company based in Surabaya. Hacaca is subcontracted by PTTC to transport cyanide between the International and Domestic Ports in Surabaya.

**1.4.4.3 PT Misa Utara**

PT Misa Utara (Misa Utara) is an Indonesian transportation company based in North Sulawesi. Misa Utara is subcontracted by PTTC to transport cyanide between the Port of Bitung and MSM/TTN mine.

**1.5 Transit Storage**

Storage in transit does occur at Ports identified in Section 2.3.4 while formalities such as customs clearance and carrier releases are performed. Once formalities are complete, the cyanide containers are collected by the respective road transporters. At no stage along the Indonesian Supply Chain is cyanide removed from the containers prior to unloading at customer mine sites.

PTTC also provides interim transit storage at a facility within the Port of Bitung (PTTC Interim Storage Compound). Storage duration depends on trucking and domestic shipping connections, but is generally less than one day. Cyanide remains in the shipping containers at all times during storage.

**1.6 Auditors Findings and Attestation**

in full compliance with

**PT Trans Continent**

**The International  
Cyanide Management  
Code**

**Chain is:**

in substantial compliance with

not in compliance with

**Audit Company:** Golder Associates

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

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

**1.7 Name and Signatures of Other Auditors:**

Name	Position	Signature	Date
Edward Clerk	Lead Auditor and Technical Specialist		6 September 2011

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Date



## 1.8 Dates of Audit

The Certification Transport Audit was undertaken over three days (six person-days) between 15 March 2011 and 17 March 2011.

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

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

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## 2.0 CONSIGNOR SUMMARY

### 2.1 Principle 1 – Transport

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

#### 2.1.1 Transport Practice 1.1

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

in full compliance with

The operation is

in substantial compliance with

**Transport Practice 1.1**

not in compliance with

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

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

#### **PT Trans Continent**

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

A risk assessment of potential road routes is undertaken for all road transportation and interim storage facilities for cyanide. A due diligence assessment is undertaken for all subcontracted links within the supply chain, including ports. Where there are high risks identified, PTTC implement management controls to reduce the risk to acceptable levels.

The Route Risk Assessment Procedure outlines the process for selecting transportation routes that minimises the potential for accidents and releases of dangerous goods. The purpose of the Due Diligence Procedure is to ensure cyanide supply chains have been assessed to determine the level of risk for both transportation and storage. This is applicable to all stages along the supply chain, including ports, stevedores, chartered shipping, commercial shipping and trucking subcontractors.

PTTC has developed a procedure to evaluate the risks of selected cyanide transport routes and take the measures necessary to manage these risks.

The PTTC Route Assessment Procedure outlines the process for selecting transportation routes that minimises the potential for accidents and releases. To identify the safest and most practical route, an assessment of the type of the cargo, origin, destination, vessels used, ports and roads is undertaken. When a customer seeks the services of PTTC to transport cyanide, the Supply Chain route options are evaluated and selected through a risk assessment process based on Australian Standard AS 4360: 2004 Risk Management.

PTTC has implemented a procedure to periodically re-evaluate routes used for cyanide deliveries.

The Route Assessment Procedure notes that re-evaluation of routes used for cyanide deliveries is undertaken every two years.

Several processes have been implemented by PTTC to ensure that relevant feedback is obtained on routes utilised for the movement of cyanide.

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In the event of significant changes occurring the route selection and risk assessment process is revisited. In the event of a change occurring during the delivery, an assessment is made at the time of becoming aware of the change such as a detour. The informal assessment is made using the convoy personnel (Drivers, Branch Manager, police escort).

PTTC has documented the measures taken to address risks identified with the selected routes.

The evaluation and selection of routes is undertaken through a risk assessment process in conjunction with transport contractors (if applicable) based on Australian Standard AS 4360: 2004 Risk Management. Mitigation measures are then detailed in the risk assessment documentation.

Hazards, threats, risk ratings, mitigation measures and residual risk ratings were detailed in the risk assessment documentation for the specific routes. This information is summarised in a Drivers Brief that is used as a tool during the Pre-delivery Tool Box Meeting. The Driver's Brief is also located within the Driver's Handbook.

PTTC seeks input from stakeholders and applicable government agencies as necessary in the selection of routes and development of risk management measures.

The section of PTTC Due Diligence Procedure notes that when a customer seeks the services of PTTC to transport cyanide, route options are assessed using the process outlined in the Route Risk Assessment Procedure. The process evaluates the available options for direct delivery, different ports, and the use of trucks versus rail to identify a route that minimizes the potential for accidents and releases. Information from the customer regarding the product, packaging, size, weight and quantity is provided and forms part of the assessment.

Where routes present special safety or security concerns, PTTC use security measures for transportation of cyanide, including:

- PTTC Branch Manager and support vehicle travels at the rear of the convoy.
- Police escort leads convoy.
- Sealed containers (manufacture seal).
- Locked containers (from Surabaya to mine sites).

PTTC has advised external responders, medical facilities and communities as necessary of their roles during an emergency response. Letters outlining the external responders' roles in emergency response have been sent to the relevant parties.

Emergency response mock drills are conducted annually where the duties and responsibilities of personnel are played out for a given scenario. These mock drills involve mining companies and subcontractors and other external stakeholders such as Port operators, Police, Fire and Rescue services are invited to attend.

PTTC uses the following subcontractors in it Indonesian Supply Chain:

- PT Hacaca Setio Abadi (Hacaca).
- PT Misa Utara (Misa Utara).

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PTTC manages the transport of cyanide with subcontractors through its Subcontractor Management Procedure. Subcontractors must provide vehicles that have been pre-approved by PTTC and provide pre-approved drivers that have been inducted by PTTC to safely transport cyanide.

The Subcontractor Management Procedure outlines the roles and requirements of subcontractors in cyanide transportation. The procedure also implements a process to formally check that the subcontractors are meeting the agreed obligations through monthly inspections and checklists with each delivery.

Under the Subcontractor Management Procedure, the subcontractors shall provide pre-approved vehicles and drivers to PTTC, which are listed on the PTTC Pre-Approved Vehicle List and Pre-Approved Drivers List. Letters to the subcontractors have been sent advising the subcontractors of their roles and responsibilities to the Code and the roles and responsibilities of PTTC. The subcontractors have received these letters.

PTTC has implemented a due diligence process whereby subcontractors are audited and assessed against their contractual requirements to ensure compliance with the ICMC.

### **PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for selecting cyanide transport routes to minimize the potential for accidents and releases as this process is managed by PTTC. Hacaca vehicles are owned by Hacaca and its drivers are employees of Hacaca. Hacaca do not engage subcontractor drivers.

### **PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for selecting cyanide transport routes to minimize the potential for accidents and releases as this process is managed by PTTC. Misa Utara vehicles are owned by Misa Utara and its drivers are employees of Misa Utara. Misa Utara do not engage subcontractor drivers.

### **Port of Ulsan**

Riskom International Pty Ltd conducted a Due Diligence Review of the Port of Ulsan on 11 February 2011. The due diligence assessment was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The report found the Port of Ulsan's DongBang Container Terminal stores cyanide in a suitable dangerous goods area, albeit with concerns regarding storage of cyanide in proximity to incompatible materials. A letter was written by PTTC to follow up the issue of dangerous goods storage/ incompatible materials restrictions and suggestions for signage improvements with DongBang.

The Review concluded that the Port of Ulsan complies with the principles of the ICMI Cyanide Transportation Verification Protocol For the International Cyanide Management Code, subject to the exception described above for storage at the Port of Ulsan.

### **Surabaya International and Domestic Ports**

PTTC conducted a Due Diligence Review of Surabaya International and Domestic Ports in 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. PTTC also conducted a Due Diligence Review on PT Arita Dwi Nugraha Putra, the Government approved stevedoring company. PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

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### **Port of Bitung**

PTTC conducted a Due Diligence Review of Bitung Port 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

### **Wan Hai Lines**

PTTC does not have control of the routes taken by the shipping lines contracted to transport sodium cyanide. In selecting a route, shipping lines must take into account factors such as tides, currents, winds, storms and load compatibilities. To account for this variability, PTTC has undertaken a Due Diligence Review of WHL to ensure that the shipments are in accordance with the IMO DG Code.

Riskom International Pty Ltd conducted a Due Diligence Review of WHL on 11 February 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. The Review found that WHL has systems in place to ensure compliance with all the requirements of the IMDG Code and other relevant parts of the SOLAS Convention, particularly placarding, stowage, segregation, packaging, packing of containers and documentation.

### **PT Pelayaran Bunga Mahakam Perkasa – Samarinda**

In selecting a route, shipping lines must take into account factors such as tides, currents, winds, storms and load compatibilities. When LCT commercial vessels are engaged to carry the cyanide cargo the routes follow the established shipping lanes and the route from Surabaya to Bitung is specified in contract documents with MSM/TTN and NHM

PTTC has undertaken a Due Diligence Review of PT Pelayaran Bunga Mahakam Perkasa – Samarinda in 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

PTTC has also implemented a process whereby a Lashing Survey of the LCT or barge is undertaken prior to its departure. A report is provided to PTTC outlining the findings from the lashing survey and the vessel does not get loaded until any corrective actions identified during the survey have been implemented and once loaded the vessel does not depart until a final inspection is performed to ensure the containers are loaded and strapped correctly.

### **PT Tanto Intim Line**

In selecting a route, shipping lines must take into account factors such as tides, currents, winds, storms and load compatibilities. When commercial vessels are engaged to carry the cyanide cargo the routes follow the established shipping lanes and the route from Surabaya to Bitung is specified in contract documents with MSM/TTN and NHM

PTTC has undertaken a Due Diligence Review of PT Tanto Intim Line in 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

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**2.1.2 Transport Practice 1.2**

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

in full compliance with

The operation is

in substantial compliance with

**Transport Practice 1.2**

not in compliance with

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

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

**PT Trans Continent**

PTTC use only trained, qualified and licensed (where required) operators to operate its transport vehicles. Personnel operating cyanide handling and transport equipment owned and operated by PTTC have been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposure.

The Subcontractor Management Procedure and the Road Transport Procedure states that PTTC and subcontractor drivers and assistants must complete specific cyanide training as outlined in the Training Matrix. This training is undertaken in order to ensure subcontractors can perform their jobs in a manner that minimises the potential for cyanide releases and exposures. In addition, drivers and forklift operators (both PTTC and subcontractors) must have the appropriate licences as specified in the Training Matrix.

All personnel operating cyanide handling and transport equipment owned and operated by PTTC has been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposure.

PTTC has developed and implemented a training scheme for its drivers, forklift drivers, escort personnel and subcontractors. The training programme developed by PTTC includes mandatory and recommended training for all personnel involved in cyanide transportation. The training programme is outlined in the ERP, the Training Matrix and Training Register.

The Subcontractor Management Procedure has been written to ensure subcontractors transport cyanide in a responsible manner by using pre-approved drivers, vehicles and trailers. The procedure states that subcontractors must provide pre approved drivers who have been inducted and trained by PTTC to safely transport cyanide. Prior to departure, the PTTC Supervisor completes the Pre-Delivery Checklist which includes checking the vehicle and the drivers are pre-approved.

**PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Although systems are in place within Hacaca to maintain licence currency, PTTC undertake checks prior to departure to confirm Hacaca use only trained, qualified and licensed operators to operate its transport vehicles. The responsibility for ensuring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment as this process is managed by PTTC.

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**PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Although systems are in place within Misa Utara to maintain licence currency, PTTC undertake checks prior to departure to confirm Misa Utara use only trained, qualified and licensed operators to operate its transport vehicles. The responsibility for ensuring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment as this process is managed by PTTC.

**2.1.3 Transport Practice 1.3**

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

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 1.3**

not in compliance with

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

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

**PT Trans Continent**

PTTC only use equipment designed and maintained to operate within the loads it will be handling. PTTC maintains a Vehicle Register which records design specifications for all vehicles, trailers and forklifts.

The Vehicle Management Procedure describes maintenance and servicing requirements for the vehicles and trailers. Under this procedure, the Transport Supervisor maintains a schedule of manufacturer recommended servicing for vehicles and trailers. The Transport Supervisor ensures vehicles and trailers are maintained according to the schedule and keeps records of the work. Unscheduled maintenance work is also recorded.

The Pre-Start Checklist is used by drivers and forklift operators to ensure the vehicles and equipment are in good condition and to note any required maintenance work. The checklist also contains a check on the rated capacity of trucks and trailers and a cross-reference with the load weight to ensure the vehicle is not overloaded.

The Post Delivery Toolbox Meeting form has a section to note issues that need to be raised upon the completion of the convoy, including maintenance issues encountered along the route.

PTTC has developed a weekly truck and trailer maintenance program for all subcontractor vehicles and compliance to the program is checked and recorded on the Pre-Delivery Checklist. This check includes a prompt for checks on items that may impact on the load bearing capacity of the vehicles.

The Branch Manager is also required carry out a Pre-Start Check on vehicles approximately two days prior to delivery to ensure the truck and trailers are in accordance with the Pre-Approved Vehicle Register and will be ready on the delivery day. The Pre-Start Check includes check on the structural integrity of the vehicles to verify the adequacy of the equipment for the load it must bear.

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## PT TRANS CONTINENT INDONESIAN SUPPLY CHAIN, SUMMARY AUDIT REPORT

PTTC manages the transport of cyanide with subcontractors as outlined in the Subcontractor Management Procedure. Under the Subcontractor Management Procedure, PTTC personnel are responsible for checking the following on all subcontractor vehicles:

- **Vehicle Pre-Start Checklist:** The PTTC Supervisor assists drivers to complete the Vehicle Pre-Start Checklist to ensure the vehicle is in good condition to carry the cyanide shipment.
- **Pre-Delivery Checklist:** The PTTC Supervisor undertakes the Pre-Delivery Checklist of the trucks to ensure the loads are secure, the trucks and trailers are not overloaded and that there are no visual signs of cracks or stress.
- **Dangerous Goods Checklist and Delivery Report:** The PTTC Supervisor completes the Dangerous Goods Checklist and Delivery Report to ensure cyanide management controls are in place and the load is checked and secure prior to departure. The Emergency Response Equipment is also checked.

PTTC has procedures in place to prevent overloading of the transport vehicle being used for handling cyanide (i.e. overloading a truck, ferry, barge, etc).

PTTC has developed the Road Transport Procedure which outlines actions and procedures required to safely transport cyanide by road. The procedure indicates that a Cyanide Pre-Delivery Checklist is to be completed by the Driver/Supervisor before driving the route. This is required for both PTTC drivers and subcontractors. The Pre-Delivery Checklist has sections for checking the container, placarding, vehicle and general reminders. One of the requirements of the prestart checklist is to check the vehicle capacity with the container weight.

### PT Hacaca Setio Abadi

Hacaca provides vehicles that have been pre-approved by PTTC and provide pre-approved drivers that have been inducted by PTTC to safely transport cyanide. Under the Subcontractor Management Procedure, subcontractors are required to provide vehicles which are safe and suitable for the job, and have been maintained according to the manufacturer's preventative maintenance program. In addition to this, PTTC has developed a weekly truck and trailer maintenance program for Hacaca vehicles and compliance to the program is checked and recorded on the Pre-Delivery Checklist.

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for maintaining procedures to verify the adequacy of the equipment for the load it must bear as this is managed by PTTC.

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for implementing procedures to prevent overloading of the transport vehicles as this is managed by PTTC.

### PT Misa Utara

Misa Utara provides vehicles that have been pre-approved by PTTC and pre-approved drivers that have been inducted by PTTC to safely transport cyanide. Under the Subcontractor Management Procedure, subcontractors are required to provide vehicles which are safe and suitable for the job, and have been maintained according to the manufacturer's preventative maintenance program. In addition to this PTTC has developed a weekly truck and trailer maintenance program for Misa Utara vehicles and compliance to the program is checked and recorded on the Pre-Delivery Checklist.

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Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for maintaining procedures to verify the adequacy of the equipment for the load it must bear as this is managed by PTTC.

**2.1.4 Transport Practice 1.4**

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

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 1.4**

not in compliance with

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

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

**PT Trans Continent**

PTTC has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer’s packaging.

Cyanide is packaged in IBC’s which are stored in shipping containers. The containers are padlocked upon delivery to Surabaya and remain locked until they are delivered to the client.

PTTC has developed the Road Transport Procedure, which outlines actions and procedures required to safely transport cyanide by road. The procedure indicates that a Cyanide Pre-Delivery Checklist is to be completed by the Driver/Supervisor before driving the route.

PTTC ensures placards or other signage is used to identify the shipment as cyanide, as required by local regulations or international standards.

The Tongsoh Audit addressed placards and other signage used to identify the shipment as cyanide, as required by local regulations or international standards. PTTC take custody of these containers once they clear customs at the Port of Ulsan. The containers are not opened nor have their signage augmented until they arrive at the final destination. The placards used on containers, include:

- UN Numbers.
- Dangerous Goods Class labels, both of which are prescribed in the United Nations Model Regulations and the IMDG Code.

PTTC maintains a set of spare placards. These are to be used on the containers in the event the requirements of the Pre-Delivery Checklist are not met.

PTTC ensures its drivers and subcontracted drivers implement safety programmes for cyanide transport. These include the following:

- Vehicle inspections prior to the commencement of each and every departure/shipment of product.
- A preventative maintenance programme for all vehicles and trailers used in the transportation of sodium cyanide.

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- Limitations on operator or drivers' hours.
- Procedures to prevent loads from shifting.
- Procedures through which transportation can be modified, suspended or cancelled if conditions warrant; e.g. severe weather conditions, civil unrest, etc.
- A drug abuse prevention programme, including over the counter medications.

**PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for developing and implementing a safety program for transport of cyanide as this is managed by PTTC.

**PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for developing and implementing a safety program for transport of cyanide as this is managed by PTTC.

**2.1.5 Transport Practice 1.5**

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

**in full compliance with**

**The operation is**                       in substantial compliance with                      **Transport Practice 1.5**

not in compliance with

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

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

PTTC does transport consignments of cyanide by sea within the scope of this audit. All containers transported by PTTC are placarded at the Tongsoh Petrochemical Corporation in South Korea in accordance with the requirements of the IMDG Code with UN numbers, the Class 6 dangerous goods class label and the severe marine pollutant label (i.e. fish with St Andrews Cross). This level of placarding is consistent with the requirements of the Australian Dangerous Goods Code (ADG Code).

A container intended for sea transport has documentation prepared in accordance with the IMDG code, which is faxed to the shipping agent. A copy of the marine documentation is retained with the cargo at all times.

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

**PT Hacaca Setio Abadi**

Hacaca does not transport consignments of cyanide by sea or air within the scope of this audit.

**PT Misa Utara**

Misa Utara does not transport consignments of cyanide by sea or air within the scope of this audit.

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### **Wan Hai Lines**

A Due Diligence Review of WHL was conducted for PTTC by Riskom International in March, 2011. This Due Diligence Review indicated that WHL transported cyanide in compliance with the Dangerous Goods Code of the International Maritime Organisation. The Due Diligence Review noted that containers of cyanide are received at the Port of Ulsan already sealed for transport. Consequently, the Due Diligence Review was limited to the ICMI Transport Practices that specifically referenced provisions of the IMDG Code, namely 1.5.1 d-i:

Containers intended for sea transport are packed by Tongsuh Petrochemical Corporation who is required to certify that they have packed and placarded and marked the containers in accordance with the IMDG Code. The certification document is prepared by Korea Maritime Dangerous Goods Inspection and Research Institute (KMII) using information provided by Tongsuh Petrochemical Corporation and is done so in accordance with the requirements of the IMDG Code.

Documents of all dangerous goods in a shipload are prepared for the consignor by KMII. This list is transferred to Customs who must approve before the consignment may leave. It is also transmitted to the ship's master and the terminal for entry into the Port, and for checking by the stevedores at Ulsan, DCT. Both these organisations check the placarding of the container.

WHL has systems on place to ensure their ships comply with the relevant elements of SOLAS, which includes the IMDG Code and the ISM Code. Officers from WHL receive training in all the elements relating to Dangerous Goods transport and consigning. Containers will not be accepted at the Port unless they have a compliant CSC plate.

The Due Diligence Review noted that it was not possible to inspect a WHL cyanide shipment on a ship during the visit, however as far as can be ascertained, WHL ships have systems in place to ensure that they comply with the SOLAS Convention including the IMDG Code. Part of the documentation and associated systems used by WHL align with systems on their ships to prepare stowage plans and manifests as required by 5.4.3.1 of the IMDG Code.

### **PT Pelayaran Bunga Mahakam Perkasa – Samarinda**

A Due Diligence Review of PT Pelayaran Bunga Mahakam Perkasa – Samarinda was conducted by PTTC in 2011. The Due Diligence Review noted that containers of cyanide received by PT Pelayaran Bunga Mahakam Perkasa – Samarinda were packed and sealed by Tongsuh Petrochemical Corporation and have not been opened prior to loading on PT Pelayaran Bunga Mahakam Perkasa – Samarinda vessels. Consequently, the Due Diligence Review was limited to the ICMI Transport Practices that specifically referenced provisions of the IMDG Code, namely 1.5.1 d-i:

PT Pelayaran Bunga Mahakam Perkasa – Samarinda PTTC does not have a procedure to check placards or to keep Container Packing Certificates and Seaworthy Certificates on hand. PTTC has managed these risks by being present for the loading of the cyanide shipments and checking placards and shipping documentation.

Dangerous Goods documentation travels with the consignment in order to comply with the requirements of chapter 5.4 of the DG code. The documentation includes the declaration that the contents of the consignment are fully and accurately described using the correct shipping name, and are classified, packaged, marked and labelled and are in all respects in proper condition for transport according to all applicable international and national government regulations.

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The container packing certificate is specifically prepared in accordance with 5.4.2 of the IMDG Code and it meets all the requirements of that paragraph. Containers will not be accepted at the Port unless they have a compliant CSC plate.

PT Pelayaran Bunga Mahakam Perkasa – Samarinda ships have systems in place to ensure that they comply with the SOLAS Convention including the IMDG Code. Stowage plans and manifests are kept onboard as required by 5.4.3.1 of the IMDG Code; they refer to emergency response actions as required by 5.4.3.2 of the IMDG Code; and to segregation and separation requirements in Part 7 of the IMDG Code.

PT Pelayaran Bunga Mahakam Perkasa – Samarinda complies with the International Convention for the Safety of Life at Sea (SOLAS), which includes the IMDG Code (Chapter 7) and the ISM Code (Chapter 9), as indicated by the ICCLS Compliance Certificate.

### **PT Tanto Intim Line**

A Due Diligence Review of PT Tanto Intim Line was conducted by PTTC in 2011. The Due Diligence Review noted that containers of cyanide received by PT Tanto Intim Line were packed and sealed by Tongsoh Petrochemical Corporation and have not been opened prior to loading on PT Tanto Intim Line vessels. Consequently, the Due Diligence Review was limited to the ICMI Transport Practices that specifically referenced provisions of the IMDG Code, namely 1.5.1 d-i:

PT Tanto Intim Line does not have a procedure to check placards or to keep Container Packing Certificates and Seaworthy Certificates on hand. PTTC has managed these risks by being present for the loading of the cyanide shipments and checking placards and shipping documentation.

Dangerous Goods Certification is issued for the container ship which is a statement of compliance with the International Convention for the Safety of Life at Sea (SOLAS 74, Chapter 11-2/19) plus compliance with the IMDG Code. The Certification also specifies which dangerous goods may be carried by the ship and solid packaged 6.1 goods are acceptable.

The container packing certificate is specifically prepared in accordance with 5.4.2 of the IMDG Code and it meets all the requirements of that paragraph. Containers will not be accepted at the Port unless they have a compliant CSC plate.

PT Tanto Intim Line ships have systems in place to ensure that they comply with the SOLAS Convention including the IMDG Code. Stowage plans and manifests are kept onboard as required by 5.4.3.1 of the IMDG Code; they refer to emergency response actions as required by 5.4.3.2 of the IMDG Code; and to segregation and separation requirements in Part 7 of the IMDG Code.

PT Tanto Intim Line complies with the International Convention for the Safety of Life at Sea (SOLAS), which includes the IMDG Code (Chapter 7) and the ISM Code (Chapter 9), as indicated by the ICCLS Compliance Certificate.

### **Port of Ulsan**

Riskom International Pty Ltd conducted a Due Diligence Review of the Port of Ulsan on 11 February 2011. The due diligence assessment was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The report found the Port of Ulsan's DongBang Container Terminal stores cyanide in a suitable dangerous goods area, albeit with concerns regarding storage of cyanide in proximity to incompatible materials. A letter has been written to follow up the issue of dangerous goods storage/ incompatible materials restrictions and suggestions for signage improvements with DongBang.

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The Review concluded that the Port of Ulsan complies with the principles of the ICMI Cyanide Transportation Verification Protocol For the International Cyanide Management Code, subject to the exception described above for storage at the Port of Ulsan.

### **Surabaya International and Domestic Ports**

The Surabaya International and Domestic Ports are operated by the one company. PTTC conducted a Due Diligence Review of Surabaya International and Domestic Ports in 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. The Review noted that the Ports have a government issued Statement of Compliance which certifies that the Port is compliant with SOLAS 74 Chapter X1-2 and the Code for the Security of Ship and Port Facilities (ISPS Code). The ports were also noted as having quality, safety and environmental system certifications. The Port area handling shipping containers is secure with only authorised vehicles and drivers allowed to enter the secure Port area.

The Review also noted that the ports had a designated Dangerous Goods Storage Areas, however PTTC were unable to inspect the facility as it was located within a restricted Customs Area.

PT Pelabuhan has its own Fire Department at the Port with a fire engine on standby and a trained emergency response team.

PTTC also conducted a Due Diligence Review on PT Arita Dwi Nugraha Putra, the Government approved stevedoring company. A meeting was held with PT Arita Dwi Nugraha Putra and PTTC. The Review noted that PT Arita Dwi Nugraha Putra uses licensed operators and complies with the requirements of the IMDG Code. In addition, PTTC directly supervises the stevedore activities for chartered vessels at Surabaya Domestic Port and the PTTC Emergency Response Team is present during convoys together with Emergency Response Equipment.

PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

### **Port of Bitung**

PTTC conducted a Due Diligence Review of Bitung Port 2011. The Due Diligence Review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. The Review noted that the Ports have a government issued Statement of Compliance which certifies that the Port is compliant with SOLAS 74 Chapter X1-2 and the Code for the Security of Ship and Port Facilities (ISPS Code). Cargo sent to the Bitung Port is unloaded by crane operated by the Port Stevedores. The port operates its own fire fighting team stationed within the Port facility.

PTTC concluded that the entity has have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.

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**2.1.6 Transport Practice 1.6**

**Track cyanide shipments to prevent losses during transport.**

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 1.6**

not in compliance with

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

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

**PT Trans Continent**

Transport vehicles have means to communicate with PTTC, the mining operation, the cyanide producer and emergency responders.

The following communication equipment is used by the convoy:

- Hands free cell phone – all drivers including subcontractors, escort vehicles, police and the emergency response team.
- Two-way radio – all trucks including subcontractors, escort vehicles and the emergency response team.
- Satellite phone – escort vehicle.

An emergency contact list is located in all trucks and in the emergency response plan and drivers handbook. The contact list includes details for PTTC, the mine sites and external emergency responders. This contact list is checked during annual mock drills to ensure the contact details are current. If changes are require, the updated Emergency Contact is inserted into the driver handbooks and ERP. In addition, the ERP is reviewed annually which includes a check of the emergency contact list.

Prior to the departure of the convoy, all communication equipment is tested. The check is recorded on the Pre-Delivery Checklist. In addition the Transportation Supervisor completes the Dangerous Goods Delivery Report and Checklist for each cyanide shipment. This checklist includes checks on communication black spots and entry/exit phone-in locations.

PTTC has undertaken communication assessments along its transport routes. The availability of the cellular network along a route is checked as part of the initial route assessment process. Black out areas have been identified and are highlighted in the Drivers Brief and Route Risk Assessments. Drivers are prompted to use two-way radios whilst driving through these blackout zones and to call in and out with entering and exiting the blackout zone.

The PTTC Cargo Tracking Procedure outlines the method of tracking cargo shipments. Cargo tracking during sea transport is undertaken through a combination of phone, email, fax and chain of custody documentation. Along the supply chain there are various documents used by the supplier, shippers, subcontractors and PTTC that detail the cargo being carried, including container numbers and contents. A Daily Report is compiled containing information on the location of the cargo, ship details and weather conditions.

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PTTC does implement inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment.

Shipping records indicating the amount of cyanide in transport and Safety Data Sheets must travel with the cargo at all times.

**PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Each truck carries mobile phones during deliveries as the primary method of communication. Two-way radios may be used when delivering dangerous goods in convoys, however all formal communications are undertaken by the PTTC escort vehicle. Hacaca is not responsible for implementing procedures to track cyanide shipments to prevent losses during transport as this is managed by PTTC.

**PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Each truck carries mobile phones during deliveries as the primary method of communication. Two-way radios may be used when delivering dangerous goods in convoys, however all formal communications are undertaken by the PTTC escort vehicle. Misa Utara is not responsible for implementing procedures to track cyanide shipments to prevent losses during transport as this is managed by PTTC.

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## 2.2 Principle 2 – Interim Storage

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

### 2.2.1 Transport Practice 2.1

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

The operation is  in full compliance with **Transport Practice 2.1**  
 in substantial compliance with  
 not in compliance with

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

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

#### PT Trans Continent

Storage in transit occasionally occurs at the PTTC Interim Storage Compound in Bitung. At this Interim Storage Compound, warning signs are posted alerting workers that:

- cyanide is present
- smoking, open flames, eating and drinking are not allowed
- what personal protective equipment must be worn.

Warning signs advising workers that cyanide is present and that suitable PPE must be worn, are located at the entrance to the PTTC Interim Storage Compound in Bitung. These messages are reinforced in the Cyanide Storage Induction.

Security measures in place to prevent unauthorised access to cyanide, as the cyanide is located in locked containers contained within the fenced Interim Storage Compound. The Port of Bitung is also fenced and has guards placed at the Port entry and exit points.

Cyanide is separated from incompatible materials. All cyanide is packed by a Code certified producer into IBCs and placed with locked shipping containers. No other product is stored within the containers or the Interim Storage Compound. The containers are stored in an open yard with suitable separation distances for buildings and other containers, which allows natural ventilation to prevent the build up of hydrogen cyanide gas.

The cyanide packaging within IBCs within shipping containers provides adequate protection against the elements and competent secondary containment. In addition to containment, spill kits are available in the event of a loss of containment.

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## 2.3 Principle 3 – Emergency Response

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

### 2.3.1 Transport Practice 3.1

Prepare detailed Emergency Response Plans for potential cyanide releases.

The operation is  in full compliance with **Transport Practice 3.1**  
 in substantial compliance with  
 not in compliance with

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

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

#### PT Trans Continent

PTTC has developed an Emergency Response Plan (ERP) for the management of cyanide related emergencies associated with the cyanide transportation. The ERP is located in the PTTC offices across Indonesia and the storage area in Bitung. The emergency response team which travels with the convoys also have a copy of the ERP.

The objective of the ERP is to provide information on the process to be followed to respond to emergencies involving cyanide transported and stored by PTTC. It is applicable to the management of an emergency involving solid sodium cyanide transported or stored by PTTC and their subcontractors. It is considered applicable for product spillages along the Indonesian Supply Chain.

The route assessment/risk assessment process and operational experience was used to identify the following five likely emergency scenarios:

- Sodium Cyanide Spill – Interim storage area or during transport.
- Sodium Cyanide Spill – Inside a Freight Container.
- Sodium Cyanide Spill – Inside storage area in wet conditions.
- Sodium Cyanide Spill – During transport in wet conditions.
- Response to a Fire in the Vicinity Cyanide.

The ERP does consider both the physical and chemical form of cyanide. The ERP details the hazards and controls relevant to solid sodium cyanide and its packaging in IBCs within freight containers, as it is the only material transported. The ERP states that the company transports solid cyanide and refers to the dangerous goods class 6.1.

The ERP considers the method of transport. Transportation to end destinations is generally via well maintained sealed roads using a convoy. The convoy consists of police escorts (at the front and rear), trucks carrying the cyanide (in the middle), the Branch Manager in an escort vehicle (at the rear) and an emergency response team (also at the rear).

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The ERP does consider all aspects of the transport infrastructure as they were developed using the route evaluation and risk assessment process referred to in Transport Practice 1.1. This process describes aspects of the transport infrastructure in sufficient detail as well as associated hazards with the respective routes.

The ERP considers the design of the transport vehicles. The documentation was specifically drafted around the transport of solid cyanide on trucks and trailers with a weight capacity of 45 tonnes and equipped with twist locks.

The ERP includes descriptions of response actions, as appropriate for the anticipated emergency situation. In the event of an emergency, the first on scene activates the emergency response plan by contacting the Branch Manager who confirms the emergency and organises resources and external responders.

The ERP does identify the roles of outside responders in an emergency. The ERP describes the emergency response roles of the external responders including NHM and MSM/TTN, local police, fire and emergency departments and hospitals.

**PT Hacaca Setio Abadi**

The PTTC Subcontractor Management Procedure requires Hacaca to operate under the PTTC Emergency Response Plan.

**PT Misa Utara**

The PTTC Subcontractor Management Procedure requires Misa Utara to operate under the PTTC Emergency Response Plan.

**2.3.2 Transport Practice 3.2**

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

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 3.2**

not in compliance with

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

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

**PT Trans Continent**

PTTC provides emergency response training of appropriate personnel.

PTTC has developed and implemented a training scheme for its drivers and escort personnel. The training programme is outlined in the ERP, the Training Matrix and Training Register. PTTC also schedule mock drills, which provide a good opportunity for further training in emergency response.

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Descriptions of the specific emergency response duties and responsibilities for PTTC personnel are detailed within the ERP for the following individuals:

- Branch Manager
- Emergency Response Team
- Drivers
- Drivers Assistants
- Security Personnel
- Warehouse Personnel.

The ERP also outlines emergency response duties and responsibilities external responders who have been advised of these roles. Mock drills involving external agencies such as mining companies, police, and fire and emergency services are undertaken annually.

PTTC is responsible for emergency preparedness on every convoy. This includes providing emergency response equipment and PPE. Emergency response equipment and PPE is detailed within the ERP, and checked for its presence and functionality on several checklists.

PTTC has developed and provided initial and periodic refresher training covering cyanide awareness and emergency response. The training programme developed by PTTC includes mandatory and recommended training for all staff involved in cyanide transportation. The training programme is outlined in the ERP, the Training Matrix and Training Register. The training register includes information on trainee names, training frequency, course module, training date and refresher dates.

**PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for designating appropriate response personnel and committing necessary resources for emergency response as this is managed by PTTC.

**PT Misa Utara**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for designating appropriate response personnel and committing necessary resources for emergency response as this is managed by PTTC.

**2.3.3 Transport Practice 3.3**

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

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 3.3**

not in compliance with

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

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

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### **PT Trans Continent**

PTTC has developed a procedure for notifying the shipper, the receiver/consignee, outside response providers, and medical facilities of an emergency. The ERP details the specific duties of personnel (Managing Director, Branch Manager, Drivers and others working around cyanide) during an emergency. Included in the list of duties is information on who to notify during an emergency. The Drivers Handbook, located in all vehicles, also contains phone numbers and information on what to do and who to notify during an emergency.

The internal and external contact numbers are also listed in the ERP. The PTTC Managing Director is responsible for updating and reviewing the plan (including contact numbers) and informing all plan holders of any changes. The plan is reviewed annually, as a significant operational change takes effect or after an incident. Furthermore, emergency response mock drills are conducted annually where the duties and responsibilities of personnel are played out for a given scenario. Contact numbers are also checked during these annual mock drills.

There are provisions to ensure that internal and external emergency notification and reporting procedures are kept current.

The document details in the amendment history of the ERP notes the date of publication, the author and the document revision number. The ERP states that contact numbers are checked and updated at each revision. The next revision of the ERP is due April 2012, as per the health, safety, environment and community (HSEC) schedule. The ERP also notes that the emergency response procedures are reviewed and evaluated following any incident that triggers implementation of the ERP, after any significant changes occur and after mock drills are undertaken. Recommendations arising from incident investigations are included in the ERP.

### **PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for developing procedures for internal and external emergency notification and reporting as this is managed by PTTC.

### **PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for developing procedures for internal and external emergency notification and reporting as this is managed by PTTC.

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### 2.3.4 Transport Practice 3.4

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

in full compliance with

The operation is

in substantial compliance with

**Transport Practice 3.4**

not in compliance with

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

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

#### **PT Trans Continent**

PTTC has 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.

The ERP contains information on neutralization of a cyanide spill, and as well as information on monitoring spill areas. Specific information on spill containment and decontamination procedures is provided for each of the five emergency scenarios presented within the ERP. Specific training modules and annual mock drill training also contain information on spill remediation.

All spill waste is sent to customer mine sites for disposal.

The ERP contains a warning which prohibits the use of neutralising chemicals such as sodium hypochlorite, hydrogen peroxide and ferrous sulphate to treat cyanide in wet conditions, or cyanide that has been released into natural surface water bodies. This requirement is reiterated within the mock drill training where relevant. All drivers and escort team personnel receive this training annually.

#### **PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for developing procedures for remediation of releases that recognise the additional hazards of cyanide treatment as this is managed by PTTC.

#### **PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for developing procedures for remediation of releases that recognise the additional hazards of cyanide treatment as this is managed by PTTC.

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**2.3.5 Transport Practice 3.5**

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

in full compliance with

**The operation is**

in substantial compliance with

**Transport Practice 3.5**

not in compliance with

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

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

**PT Trans Continent**

The ERP contains provisions for periodically reviewing and evaluating the plans adequacy. The HSEC schedule details dates of specific requirements throughout the year. An annual ERP review is included in the schedule, with the next review due April 2012.

The document history section of the ERP shows the date of publication, the author and the document revision number. The plan is updated following any incident that triggers implementation of the ERP, after significant changes occur and after mock drills are undertaken. Recommendations arising from incident investigations are included in the ERP.

The ERP contains provisions for conducting Mock Drills. Emergency response mock drills are conducted annually where the duties and responsibilities of personnel are played out for a given scenario. These mock drills involve mining companies and subcontractors and other external stakeholders such as Port operators, Police, Fire and Rescue services are invited to attend.

The HSEC schedule includes dates for the annual mock drills. The next drill is scheduled to occur in March 2012 in Manado, and April 2012 in Surabaya.

The ERP requires emergency documentation to be evaluated after its implementation and revised as needed. The document details in the amendment history of the ERP notes the date of publication, the author and the document revision number. The plan is updated following any incident that triggers implementation of the ERP, after significant changes occur and after mock drills are undertaken. Recommendations arising from incident investigations are included in the ERP. At the time of the audit, no cyanide related transport emergencies involving PTTC or their subcontractors had occurred.

**PT Hacaca Setio Abadi**

Hacaca is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Hacaca is not responsible for periodically evaluating response procedures and capabilities and revising them as needed as this is managed by PTTC.

**PT Misa Utara**

Misa Utara is responsible for only providing drivers and vehicles for the transportation of cyanide within a PTTC led convoy. Misa Utara is not responsible for periodically evaluating response procedures and capabilities and revising them as needed as this is managed by PTTC.

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### **3.0 SEA TRANSPORT SUMMARY**

#### **3.1 Shipping - Wan Hai Lines**

Ken Price of Riskom International Pty Ltd conducted a Due Diligence Review of WHL on behalf of PTTC on 11 February 2011. Ken Price meets the ICMI requirements for a Transport Expert.

The following items were addressed within the due diligences:

- Introduction
- Scope of Review
- Due Diligence Review Methodology
- ICMI Transport Verification Protocol Assessment
  - Transport Practice 1.1
  - Transport Practice 1.5.1 d-i
  - Transport Practice 2.1

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

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

The Due Diligence Review concluded:

- *NHM is preparing contractual agreements to ensure that it does not consign any product on a vessel that is not a container vessel operated by WHL;*
- *Part of NHM's contracts will also prescribe that product may only be exported through the Port of Ulsan, thereby ensuring that it is delivered to the port of embarkation by the shortest most direct route with the least public exposure;*
- *WHL has systems in place to ensure compliance with all the requirements of the IMDG Code and other relevant parts of the SOLAS Convention, particularly placarding, stowage, segregation, packaging, packing of containers and documentation;*
- *The delivery route selected will minimize the potential for accidents and releases;*

*In my opinion, the .... shipping from Korea to Indonesia is in compliance with the principles of the ICMI Cyanide Transportation Verification Protocol For the International Cyanide Management Code...*

#### **3.2 Shipping - PT Pelayaran Bunga Mahakam Perkasa – Samarinda**

Gunawan Supriadi (Branch Manager) and Ismail Rasyid (Managing Director) of PTTC conducted a Due Diligence Review of PT Pelayaran Bunga Mahakam Perkasa – Samarinda in 2011. Gunawan Supriadi meets the ICMI requirements for a Transport Expert having worked in shipping for 10 years, the last 5 years of those with PTTC. Ismail Rasyid also meets the ICMI requirements for a Transport Expert, with 18 years in the industry, 8 of those with PTTC.

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The following items were addressed within the due diligences:

- Introduction
- Methodology
- Identification of the Supply Chain Routes
- Assessment of the Supply Chain Links
- Risk Assessments
- Due Diligence Assessments
- Subcontractor Assessments
- Preferred Supply Routes
- Emergency Response Plans

Within the Due Diligence Assessments section the following items were assessed for PT Pelayaran Bunga Mahakam Perkasa – Samarinda:

- Transport Practice 1.1
- Transport Practice 1.5.1 d-i

The Due Diligence Review concluded that:

*PT Pelayaran Bunga Mahakam Perkasa – Samarinda does not have a procedure to check placards or to keep Container Packing Certificates and Seaworthy Certificates on hand. PTTC has managed these risks by being present for the loading of the cyanide shipments and checking placards and shipping documentation.*

*PT Pelayaran Bunga Mahakam Perkasa – Samarinda has reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.*

### **3.3 Shipping - PT Tanto Intim Line**

Gunawan Supriadi (Branch Manager) and Ismail Rasyid (Managing Director) of PTTC conducted a Due Diligence Review of PT Tanto Intim Line in 2011. Gunawan Supriadi meets the ICMI requirements for a Transport Expert having worked in shipping for 10 years, the last 5 years of those with PTTC. Ismail Rasyid also meets the ICMI requirements for a Transport Expert, with 18 years in the industry, 8 of those with PTTC.

The following items were addressed within the due diligences:

- Introduction
- Methodology
- Identification of the Supply Chain Routes
- Assessment of the Supply Chain Links

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- Risk Assessments
- Due Diligence Assessments
- Subcontractor Assessments
- Preferred Supply Routes
- Emergency Response Plans

Within the Due Diligence Assessments section the following items were assessed for PT Pelayaran Bunga Mahakam Perkasa – Samarinda:

- Transport Practice 1.1
- Transport Practice 1.5.1 d-i

The Due Diligence Review concluded that:

*PT Tanto Intim Line does not have a procedure to check placards or to keep Container Packing Certificates and Seaworthy Certificates on hand. PTTC has managed these risks by being present for the loading of the cyanide shipments and checking placards and shipping documentation.*

*PT Tanto Intim Line has reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.*

### **3.4 Port of Ulsan**

Ken Price of Riskom International Pty Ltd conducted a Due Diligence Review of the Port of Ulsan on behalf of PTTC on 11 February 2011. Ken Price meets the ICMI requirements for a Transport Expert.

The following items were addressed within the due diligences:

- Introduction
- Scope of Review
- Due Diligence Review Methodology
- ICMC Transport Verification Protocol Assessment
  - Transport Practice 1.1
  - Transport Practice 1.5.1 d-i
  - Transport Practice 2.1

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

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

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The Due Diligence Review concluded:

*Interim storage at the Port of Ulsan is not fully in compliance with the requirements of the IMDG Code for Port Storage of Dangerous Goods, however NHM has action in hand to work with the Port to ensure that it achieves compliance.*

*In my opinion, the operations at the Port of Ulsan... is in compliance with the principles of the ICMI Cyanide Transportation Verification Protocol For The International Cyanide Management Code, subject to the exception described above for storage at the Port of Ulsan.*

### **3.5 Surabaya International and Domestic Ports**

Gunawan Supriadi (Branch Manager) of PTTC conducted a Due Diligence Review of the Surabaya International and Domestic Ports in 2011. Gunawan Supriadi meets the ICMI requirements for a Transport Expert having worked in shipping for 10 years, the last 5 years of those with PTTC.

The following items were addressed within the due diligences:

- Introduction
- Methodology
- Identification of the Supply Chain Routes
- Assessment of the Supply Chain Links
- Risk Assessments
- Due Diligence Assessments
- Subcontractor Assessments
- Preferred Supply Routes
- Emergency Response Plans

Within the Due Diligence Assessments section the following items were assessed for the Surabaya International and Domestic Ports:

- Transport Practice 1.1.1
- Transport Practice 1.1.4
- Transport Practice 1.5.1
- Transport Practice 2.1.1-2.1.5

The Due Diligence Review concluded that:

*The Surabaya International and Domestic Ports have been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.*

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### **3.6 Bitung Port**

Ismail Rasyid (Managing Director) and Nursan Nurdin of PTTC conducted a Due Diligence Review of Bitung Port in 2011. Ismail Rasyid meets the ICMI requirements for a Transport Expert having worked in shipping for 18 years, 8 of those with PTTC. Nursan Nurdin also meets the ICMI requirements for a Transport Expert, having 6 years with PTTC and 11 years in the industry.

The following items were addressed within the due diligences:

- Introduction
- Methodology
- Identification of the Supply Chain Routes
- Assessment of the Supply Chain Links
- Risk Assessments
- Due Diligence Assessments
- Subcontractor Assessments
- Preferred Supply Routes
- Emergency Response Plans

Within the Due Diligence Assessments section the following items were assessed for the Bitung Port:

- Transport Practice 1.1.1
- Transport Practice 1.1.4
- Transport Practice 1.5.1
- Transport Practice 2.1.1-2.1.5

The Due Diligence Review concluded that:

*The Bitung Port has been reasonably evaluated against the ICMC's Transporter Protocols and are compliant with the requirements of the Code.*

### **4.0 LIMITATIONS**

Your attention is drawn to the document – "Limitations", which is included in Appendix A of this report. The statements presented in this document are intended to advise you of what your realistic expectations of this report should be. The document is not intended to reduce the level of responsibility accepted by Golder, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.

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## Report Signature Page

**GOLDER ASSOCIATES PTY LTD**

A handwritten signature in black ink, appearing to read 'E. Clerk', written over a light blue grid background.

Ed Clerk  
Associate and Environment Group Manager

ECW/arp

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# **APPENDIX A**

## **Limitations**



## LIMITATIONS

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