



July 2014

## INTERNATIONAL CYANIDE MANAGEMENT CODE

# Pioneer Ocean Freight, POF Transportation Recertification Audit, Thailand, Summary Audit Report

**Submitted to:**

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REPORT

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





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## 1.0 INTRODUCTION

### 1.1 Operational Information

**Name of Transportation Facility:** Pioneer Ocean Freight  
**Name of Facility Owner:** Not Applicable  
**Name of Facility Operator:** Pioneer Ocean Freight  
**Name of Responsible Manager:** Chamlong Phuncharoensin, General Manager  
**Address:** Pioneer Ocean Freight  
10th floor, Green Tower  
3656/30 Rama 4 Road  
Klong Toey, Bangkok 10110  
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**Country:** Thailand  
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### 1.2 Description of Operations

#### 1.2.1 Pioneer Group of Companies

The Pioneer Group of Companies (PCG) was founded in 1972 and today is an international freight forwarder and multi-modal transport operator. The PGC consists of several companies specialising in a range of services including (but not limited to) the following:

- Air freight booking
- Sea freight booking
- Multi-modal transport operations
- Customs clearance
- Packaging
- Warehousing
- Inland transportation
- Container haulage services.

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### 1.2.2 Pioneer Ocean Freight

Pioneer Ocean Freight forms the Thailand transportation arm of PGC and has been established for 30 years. The company employs approximately 200 staff including 35 drivers, and has a dedicated fleet of 40 prime movers and trailers each capable of carrying up to 28 tonnes. Pioneer Ocean Freight specialises in:


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

Pioneer Ocean Freight currently transports approximately 2 400 tonnes per annum of cyanide from the Port of Laem Chabang to mine sites in Thailand and Laos.

Pioneer Ocean Freight subcontracts the driving of trucks and convoy support vehicles, in part, to:

- Tong Trans (ceased in July 2013)
- Nanon
- Nava (ceased in June 2013).

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### 1.2.3 Road Transportation

#### 1.2.3.1 Tong Transmission Company Limited

Tong Trans was established in 1994 and has its head office in Chonburi Thailand. They also have a branch office in Samutprakarn.

Tong Trans specialise in domestic transportation within Thailand and in transit transportation to Laos.

The current fleet consists of approximately 34 trucks and 50 trailers of various sizes, including low bed trailers, all of which are maintained by Tong Trans under a comprehensive maintenance programme.

Tong Trans has been a subcontractor of Pioneer Ocean Freight for over 10 years and has made all deliveries of cyanide to the Sepon Mine Site in Laos during this time with no incidents.

#### 1.2.3.2 Nava Inland Transport Ltd

Nava was established in 1993 and has its head office in Bangkok. They also have a depot in Chonburi.

The depot is approximately 19 200 m<sup>2</sup> in size with container storage for approximately 1 400 twenty-foot equivalent units (TEUs) and the rest of the depot is for general freight storage and truck and trailer maintenance.

Nava currently has a fleet of 30 trucks and in excess of 40 trailers of various sizes for general freight and container transportation and a separate fleet for movement of heavy and oversized loads.

Nava has been a subcontractor of Pioneer Ocean Freight for over 10 years, ceasing in June 2013. During this time it has successfully transported all containers of cyanide to the Chatree Mine Site in Thailand with no incidents.


#### 1.2.3.3 Nanon Inter Freight

Nanon is a private company founded in 2000, under Nanon Group, which is jointly owned and operated by its management team. Nanon provides freight and logistic services to companies and projects in Thailand and Indochina.

### 1.2.4 Transit Storage

Within the scope of this audit, there are no trans-shipping depots or interim storage sites, as defined in the audit protocol. At no stage is cyanide removed from the trucks or containers prior to unloading at customer mine sites.

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### 1.3 Auditors Findings and Attestation

Pioneer Ocean Freight is:  in full compliance with  
 in substantial compliance with  
 not in compliance with

The International Cyanide Management Code

Audit Company: Golder Associates Pty Ltd  
Audit Team Leader: Ed Clerk, CEnvP (112), Exemplar Global (105995)  
Email: eclerk@golder.com.au

No significant cyanide exposures and releases were noted as occurring during the audit period.

#### Name and Signatures of Auditors:

Name	Position	Signature	Date
Edward Clerk	Lead Auditor and Technical Specialist		23 July 2014

#### Dates of Audit

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

Pioneer Ocean Freight is  in substantial compliance with

**Transport Practice 1.1**

not in compliance with

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


Pioneer Ocean Freight is in FULL COMPLIANCE with Transport Practice 1.1 requiring cyanide transport routes to be selected to minimise the potential for accidents and releases.

#### Pioneer Ocean Freight

Pioneer Ocean Freight, in consultation with its suppliers, has implemented a procedure to guide the selection of transport routes to minimise the potential for accidents and releases or the potential impacts of accidents and releases. Routes are selected by the Pioneer Ocean Freight General Manager in consultation with Orica and AGR Managers. A procedure is in place that prompts considerations of:

- Areas of population density
- Waterways
- Major intersections
- Road construction and condition (e.g. type of surface, condition, width; pitch and gradient)
- Medical facilities
- Border crossings
- Communications availability
- Other areas of note.

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The evaluation and selection of routes is undertaken through a risk assessment process conducted in accordance with risk tables outlined in Pioneer Ocean Freight *Procedure No. 3 – Route Assessments*. The route risk assessment documentation contained a flow chart outlining the Risk Management Process as outlined in *AS/NZS 31000:2009 Risk Management – Principles and Guidelines*.

Route risk assessments have been undertaken for the transport of cyanide to Ban Houayxai, Chatree and to Sepon. The subcontractor companies are encouraged to participate in the risk assessment process and discussions with the Nanon Risk and Dangerous Goods Coordinator confirmed this. Route assessments have been updated annually.

Pioneer Ocean Freight has identified the stakeholders in Thailand and Laos, and seeks input from stakeholders and applicable governmental agencies as necessary in the selection of routes and development of risk management measures.

The Pioneer Ocean Freight General Manager stated that within Thailand and Laos it is the responsibility of the government to consult with the community on the issue of cyanide transportation. For this reason, Pioneer Ocean Freight has not directly consulted with the community in regards to route selection.

Convoys are used as a means of managing the risks of the road conditions and responding to emergencies. The route risk assessments identify convoys as a means of managing risks and the convoy procedures are described within the TMP and in the *Convoy Management Procedure*.


In addition to the use of convoys, other security measures are implemented including the use of locked and sealed containers.

Pioneer Ocean Freight has advised external responders, medical facilities and communities as necessary of their roles during an emergency response. Pioneer Ocean Freight has sent the ERP to external stakeholders who have a role in emergency response.

Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.

In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

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**Tong Transmission Company Limited**

Tong Trans was contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide from the Port of Laem Chabang to the Sepon Gold Mine. Pioneer Ocean Freight ceased using Tong Trans in July 2013. Transportation to the Sepon mine ceased in October 2013 when the mine temporarily closed. Route selection and re-evaluation and identification and notification of stakeholders was completed by Pioneer Ocean Freight using Pioneer Ocean Freight procedures.

Tong Trans did not engage subcontractors for the transport of cyanide for Pioneer Ocean Freight.

**Nava Inland Transportation Limited**

Nava was contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide from the Port of Laem Chabang to Chatree Mine site. Pioneer Ocean Freight ceased using Nava in June 2013. Prior to this date, the trucks were managed in a convoy coordinated by a Pioneer Ocean Freight lead escort vehicle. The convoy was managed in accordance with Pioneer Ocean Freight procedures.


Nava did not engage subcontractors for the transport of cyanide for Pioneer Ocean Freight. Route selection and re-evaluation and identification and notification of stakeholders was completed by Pioneer Ocean Freight using Pioneer Ocean Freight procedures.

**Nanon Inter Freight Limited**

Nanon is contracted by Pioneer Ocean Freight to transport cyanide from the Port of Laem Chabang to the Ban Houayxai Gold Mines in Laos (from February 2012) and by Orica from the Port of Laem Chabang to Chatree. Route selection and re-evaluation and identification and notification of stakeholders is completed by Pioneer Ocean Freight using Pioneer Ocean Freight procedures.

Nanon do not engage subcontractors for the transport of cyanide for Pioneer Ocean Freight.

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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

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 1.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Pioneer Ocean Freight 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.

Pioneer Ocean Freight

Pioneer Ocean Freight does not directly operate transport vehicles (excluding escort vehicles) as this function is undertaken by its contractors. Pioneer Ocean Freight does, however, require that its transport contractors use only trained, qualified and licensed operators to operate its transport vehicles.


Pioneer Ocean Freight has established a process requiring its subcontractors (Nava, Tong Trans and Nanon) to maintain a list of dedicated drivers approved by Pioneer Ocean Freight. Approved drivers have appropriate training and vehicle licences to transport cyanide. The Drivers detailed on the list cannot be amended without authorisation from Pioneer Ocean Freight.

Pioneer Ocean Freight has developed and implemented a training scheme for its contractors and escort personnel. The training programme developed by Pioneer Ocean Freight includes mandatory training for all staff and contractors involved in cyanide transportation. A review of training records confirmed that at the time of the audit drivers and escort personnel had completed the mandatory training.

Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon, which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.

In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

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**Tong Transmission Company Limited**

Tong Trans Transport Supervisors checked the licence currency of all drivers used by Pioneer Ocean Freight on a monthly basis.

Tong Trans drivers were trained in accordance with the Pioneer Ocean Freight minimum training requirements and their training was tracked by Pioneer Ocean Freight.

**Nava Inland Transportation Limited**

Nava Transport Supervisors checked the licence currency of all drivers used by Pioneer Ocean Freight on a monthly basis.


Nava drivers were trained in accordance with the Pioneer Ocean Freight minimum training requirements and their training was tracked by Pioneer Ocean Freight.

**Nanon Inter Freight Limited**

Nanon maintains its own database to track the currency of driver permits and licences. Nanon convoy drivers are required to carry valid passports, licences and vehicle registrations to enable them to cross the border into Laos.

Nanon drivers are trained in accordance with the Pioneer Ocean Freight minimum training requirements and their training is tracked by Pioneer Ocean Freight.

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2.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 1.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Pioneer Ocean Freight

Pioneer Ocean Freight does not directly operate transport vehicles (excluding escort vehicles) as this function is undertaken by its contractors. Pioneer Ocean Freight does, however, require that its transport contractors use equipment designed and maintained to operate within the loads it will be handling when transporting cyanide.

Pioneer Ocean Freight requires that subcontractors send maintenance records of vehicles used in the transportation of cyanide.

Pioneer Ocean Freight and its subcontractors have procedures to verify the adequacy of the equipment for the load it must bear.


The Escort Supervisor conducts an inspection of all vehicles prior to convoy departure. This inspection is recorded on the Pre-Departure Vehicle Checklist, which is located in Appendix G of the *Transport Management Plan (TMP)*.

The pre-departure inspection includes visual observations on the prime mover and trailer for signs of stress and overloading.

Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.

In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

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**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**


Nava, Tong Trans and Nanon each have/had six prime movers and semi-trailers dedicated for cyanide transportation. A review of the equipment specifications confirmed they are designed to transport a full container of cyanide and the configuration conforms to the maximum gross weight allowed within ASEAN member countries (45 tonnes).

Nava, Tong Trans and Nanon maintain their fleet of trucks in accordance with the servicing frequency specified within the respective maintenance manuals for Volvo, Nissan and Isuzu. The servicing is undertaken by authorised Nissan, Volvo and Isuzu service agents.

There are several checks and inspections in addition to scheduled services.

The combined weight of the prime movers, trailers and a single 20 foot container (25 tonne) is within the load 45 tonne load limit.

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2.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 1.4

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Pioneer Ocean Freight

Pioneer Ocean Freight has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer’s packaging. These comprise checks at the Port, along the route, border crossings and checks at the mine site prior to unloading.

Once the containers are loaded onto the trucks at the Port, the Escort Supervisor conducts a visual inspection of the containers to ensure they are intact and undamaged in accordance with Pioneer Ocean Freight *Procedure No. 1 Container Collection*.

Pioneer Ocean Freight uses placards or other signage to identify the shipment as cyanide, as required by local regulations and international standards. The following placarding is required within Thailand:


- UN ADR regulation plate on the front and rear of the truck.
- Emergency Information Panel on each side of the container.

The *Pre-Departure Checklist* details the placarding standards and requires the Escort Supervisor to confirm the placarding is present.

Pioneer Ocean Freight has implemented a safety programme for cyanide transport that includes the following:

- Pre-departure inspections of vehicles (e.g. brakes, lights, indicators, wipers, tyres and communication equipment).
- Preventative maintenance in accordance with the servicing frequency specified within the respective maintenance manuals for Volvo, Nissan and Isuzu. The servicing is undertaken by authorised Nissan, Volvo and Isuzu service agents.
- Limitations on driver hours through management by the Escort Supervisor. The routes have been appropriately planned with scheduled breaks and designated overnight stops. Driving is conducted during daylight hours and does not typically exceed 200 km or 3 hours without a break. Scheduled breaks typically are of 20 minute duration.

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- Procedures to prevent loads from shifting. The TMP states that all containers are fixed to the trailers using twist-locks. No chains or straps are allowed. Prior to loading, the Escort Supervisor checks the condition of the trucks and the trailers. Following loading, the Escort Supervisor checks that the load is secured properly.
- Procedures for the modification or suspension of transport. The TMP and the *Procedure for Transportation Modification After Convoy has Departed Laem Chabang* note that unforeseen circumstances such as inclement weather, civil unrest or road works can result in modifications being made to the original trip plan after the journey has commenced.
- An Alcohol and Drug Policy advising of the dangers and discouraging its uses. The Policy requires supervisors to observe drivers for the effects of drugs and alcohol and take action including counselling if usage is suspected. The Policy requires an annual drug and alcohol check as part of the annual medical check-up.
- Record retention, documenting the above safety programme.

Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.


In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide. The trucks are/were managed in a convoy coordinated by a Pioneer Ocean Freight lead escort vehicle. The convoy is managed in accordance with Pioneer Ocean Freight procedures.

Additionally, Tong Trans, Nava and Nanon each have a corporate Drug and Alcohol Policy.

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Name of Facility

  
Signature of Lead Auditor

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**2.1.5 Transport Practice 1.5**

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

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with **Transport Practice 1.5**  
 not in compliance with

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

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


**Pioneer Ocean Freight**

Pioneer Ocean Freight does not directly transport consignments of cyanide by sea or air within the scope of this audit.

**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon do not transport cyanide by sea or air within the scope of this audit.

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2.1.6 Transport Practice 1.6

Track cyanide shipments to prevent losses during transport.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 1.6

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Pioneer Ocean Freight

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

The following communication equipment is used by the convoy:

- Trucks – cell phone and two way radios
- Convoy escort vehicle – cell phone and two way radios.


Communication with the supplier and mine site is via email or telephone from the Pioneer Ocean Freight General Manager.

Prior to the departure of the convoy, all communication equipment is tested. The check is recorded on the *Pre-Departure Vehicle Checklist*.

Pioneer Ocean Freight 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. The General Manager advised that a cellular network exists along the current routes and communication within the convoy is by two way radio and by cell phone to outside parties. Different cellular network companies in Thailand and Laos results in the requirement to switch SIM cards within the phones. A procedure is in place to govern this switch.

Pioneer Ocean Freight has systems to track the progress of cyanide shipments. These include the use of a cellular phone and email by the Escort Supervisor to contact the General Manager to report progress along the routes. The call up points for each route is specified within the TMP. The General Manager advises the consignee when shipments leave the Port of Laem Chabang and estimated time and date of arrival of the consignment.

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Pioneer Ocean Freight implements chain of custody procedures to prevent loss of cyanide during shipment. All containers collected at the Port of Laem Chabang must be checked to ensure that the correct container has been loaded onto the vehicle. The container number and seal number is verified in accordance with *Pioneer Ocean Freight Procedure No. 1 Container Collection*. Once delivered, a mine site representative signs the Pre-Departure Checklist confirming the consignment was received in good condition and unopened.

Shipping records indicating the amount of cyanide in transit and Safety Data Sheets are available during transport. A Bill of Lading is carried on each truck, which records the contents and weight of each container. The TMP requires that each truck have a SDS on board.


Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.

In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide. The trucks are managed in a convoy coordinated by a Pioneer Ocean Freight lead escort vehicle. The convoy is managed in accordance with Pioneer Ocean Freight procedures.

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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.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with **Transport Practice 2.1**

not in compliance with

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

Pioneer Ocean Freight 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.

#### Pioneer Ocean Freight


There are no interim storage sites between the Port of Laem Chabang and the customer mine sites. However there are overnight stops along some of the routes. In these situations there are cyanide specific responsibilities and actions that must be undertaken by the Convoy Supervisor which are detailed in the *Convoy Management Plan*. These include:

- Parking trucks close together and if practical back to back to prevent unauthorised access to the containers
- Washing warning signs on trucks to ensure they are visible and easy to read
- Enforcing driver behaviour standards.

#### Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited

There are no interim storage sites between the Port of Laem Chabang and the customer mine sites..

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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.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with **Transport Practice 3.1**

not in compliance with

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

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

#### Pioneer Ocean Freight


Pioneer Ocean Freight has developed an ERP for the management of cyanide related emergencies associated with the cyanide transportation. The ERP has been developed to provide information in a suitable format, which can be used to minimise the adverse effects of a cyanide emergency on people, property and the environment. The ERP was developed by Pioneer Ocean Freight with the assistance of Orica and AGR to ensure the ERP is consistent with emergency response guidance issued to Pioneer Ocean Freight by the suppliers. Orica and AGR provide oversight of the ERP and are provided opportunity to comment on revisions to the ERP.

The emergency documentation is appropriate for the selected transportation routes.

The route assessment/risk assessment process, and operational experience was used by Pioneer Ocean Freight to identify three likely emergency scenarios:

- Vehicle accident – no product spill
- Vehicle accident – product spill
- Vehicle accident – product spill, wet conditions.

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The emergency documentation considers the physical and chemical form of cyanide. The ERP is specifically drafted around solid cyanide, as it is the only material transported. Section 3.1 of the ERP states that the company transports solid cyanide and refers to UN 1689 and dangerous goods class 6.1.

The emergency documentation considers the method of transport. Transportation to the mine sites are via generally well maintained sealed roads using a convoy. The emergency response actions detailed in the ERP are relevant to road transportation between the Port of Laem Chabang and the Ban Houayxai, Chatree and Sepon mine sites. Transportation by rail or interim storage does not occur.

The emergency documentation considers 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 emergency documentation considers the design of the transport vehicles. Cyanide is transported in general purpose 20' sea containers utilising flat top semi-trailers and/or drop deck trailers and are held in place with twist locks and/or quick locks.

The emergency documentation includes descriptions of response actions, as appropriate for the anticipated emergency situation.


The ERP contains specific descriptions of responsibilities and actions for Pioneer Ocean Freight and its stakeholders, including hospitals, fire and rescue, police, governments and the mine site customer. The communities have not been allocated an emergency response role by Pioneer Ocean Freight and have not been consulted.

**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide. They follow Pioneer Ocean Freights procedures related to emergency response.

Evidence was sited that they have been provided with a copy of the ERP.

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### 2.3.2 Transport Practice 3.2

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

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with **Transport Practice 3.2**  
 not in compliance with

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

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

#### Pioneer Ocean Freight

Pioneer Ocean Freight provides emergency response training of appropriate personnel. Pioneer Ocean Freight has developed and implemented a training scheme for its drivers (including subcontractors) and escort personnel. The training programme includes mandatory training for all staff involved in cyanide transportation, with components focusing on emergency response and first aid.

Descriptions of the specific emergency response duties and responsibilities are detailed within the ERP for police, ambulance, fire service, government agencies, drivers, escort supervisors, mine site customers and Pioneer Ocean Freight management.

Pioneer Ocean Freight maintains a list of all of the emergency response equipment that should be available during the transport route. Section 6.5 of the ERP contains a list of response equipment per convoy (checked prior to departure of every trip). These lists are focused on the serviceability of the equipment as well as its presence.


Pioneer Ocean Freight has the necessary emergency response and health and safety equipment, including personal protective equipment during transport. Pioneer Ocean Freight also has a *Pre-Departure Vehicle Checklist*, which includes a check of the emergency response equipment. The checklist is completed by the Escort Supervisor prior to the departure of the convoy. Drivers were interviewed, and when asked, they could produce the equipment and demonstrate its use.

Pioneer Ocean Freight provides initial and periodic refresher training in emergency response procedures including implementation of the ERP. Pioneer Ocean Freight has developed and implemented a training scheme for its drivers and escort personnel. The training programme developed by Pioneer Ocean Freight includes mandatory training for all staff involved in cyanide transportation. A training matrix details when training was conducted and also records when future training is required.

Pioneer Ocean Freight has implemented individual Service Level Agreements with Nava, Tong Trans and Nanon which are signed off by the Pioneer Ocean Freight General Manager. Included in the agreement is the requirement for, amongst other regulatory requirements, compliance with the Code.

In addition to the formal contractual arrangements and assessments, ongoing performance of subcontractors is also managed through the convoy process. All convoy personnel, including subcontractors, are under the direct control of the Escort Supervisor who is a Pioneer Ocean Freight employee.

Pioneer Ocean Freight  
Name of Facility

  
Signature of Lead Auditor

23 July 2014  
Date




**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide.

Drivers are trained in accordance with the Pioneer Ocean Freight minimum training requirements and their training is provided and tracked by Pioneer Ocean Freight using Pioneer Ocean Freight's procedures.

Pioneer Ocean Freight  
Name of Facility

  
\_\_\_\_\_  
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23 July 2014  
Date



2.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 3.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Pioneer Ocean Freight

Pioneer has developed a procedure for notifying the shipper, the receiver/consignee, regulatory agencies, outside response providers, and medical facilities of an emergency. The internal and external contact numbers are listed in the Emergency Contact List in Appendix 3 of the ERP, which is located in all trucks and escort vehicles.

Contact information for potentially affected communities is not provided within the ERP as incidents are coordinated by Government services including communication with communities as required. It was also noted that the route risk assessments did not identify potentially affected communities that required alternate communication mechanisms such as direct contact by Pioneer in the event of an emergency.

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

The key contact numbers within the ERP are updated annually. The document history section of the ERP details the date of publication, the author, the new revision number and a description of the revision. The revision comments noted that the ERP was updated in June 2013.

In addition to the formal review process, the Delivery Procedure Control Sheet (Appendix M of the TMP) requires the Escort Supervisor to note any end of delivery remarks, which may include observed changes in contacts and respective telephone numbers during each convoy.

Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide. All emergency response procedure development and implementation is undertaken by Pioneer Ocean Freight.

Pioneer Ocean Freight
Name of Facility

[Signature]
Signature of Lead Auditor

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Date





**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

Pioneer Ocean Freight is  in substantial compliance with

**Transport Practice 3.4**

not in compliance with

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

Pioneer Ocean Freight 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.

**Pioneer Ocean Freight**


Pioneer Ocean Freight 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 is focussed on first response procedures in the event of an emergency. This covers the recovery, and to a lesser degree, the neutralisation of solutions and solids, as well as decontamination of equipment. The ERP notes that technical issues relating to the decontamination of soils and management and disposal of clean-up debris are conducted under the advice of the cyanide manufactures (Orica and AGR).

Pioneer Ocean Freight prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water. This is stated in the ERP and reinforced in training.

**Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited**

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers to transport cyanide. All emergency response procedure development and implementation is undertaken by Pioneer Ocean Freight.

Pioneer Ocean Freight  
Name of Facility

  
Signature of Lead Auditor

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Date



2.3.5 Transport Practice 3.5

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

in full compliance with

Pioneer Ocean Freight is  in substantial compliance with

Transport Practice 3.5

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Pioneer Ocean Freight

The ERP contains provisions for annual review or from learnings garnered from emergency response exercises and drills, incidents or additional information obtained from other external sources (e.g. manufacturers). A review of the document history shows that there have been four reviews of the ERP since 2010. The cover page of the ERP highlights that the next document review date is 1 June 2014. Pioneer Ocean Freight has provisions for periodically conducting mock emergency drills and they are being implemented. An Emergency Response Roles and Responsibilities course is used to train Pioneer Ocean Freight and subcontractors in their roles and responsibilities for the three identified emergency scenarios:

- Vehicle accident – no product spill
- Vehicle accident – product spill
- Vehicle accident – product spill, wet conditions.

A review of training records confirmed that at the time of the audit drivers and escort personnel had completed the mandatory training.

The training matrix details when training was conducted and also records when future training is required.

The ERP contains provisions for periodically reviewing and evaluating the ERP’s adequacy and they are being implemented. Section 1.1 (Purpose) of the ERP states the emergency response procedures are to be reviewed and evaluated following any incident that triggers implementation of the ERP, training drills and audits. Recommendations arising from the investigation following an incident are to be included in the ERP.


Tong Transmission Company Limited, Nava Inland Transportation Limited and Nanon Inter Freight Limited

Tong Trans, Nava and Nanon are/were contracted by Pioneer Ocean Freight to provide vehicles and drivers.

Drivers are trained in accordance with the Pioneer Ocean Freight minimum training requirements and their training is provided and tracked by Pioneer Ocean Freight using Pioneer Ocean Freight’s procedures.

All emergency response procedure development, implementation and review is undertaken by Pioneer Ocean Freight..

Pioneer Ocean Freight  
Name of Facility

  
Signature of Lead Auditor


23 July 2014  
Date



### **3.0 LIMITATIONS**

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

Pioneer Ocean Freight  
Name of Facility

  
\_\_\_\_\_  
Signature of Lead Auditor

23 July 2014  
Date



## Report Signature Page

**GOLDER ASSOCIATES PTY LTD**

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# APPENDIX A

## Limitations



## LIMITATIONS

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