



**SUMMARY AUDIT REPORT**

**International Cyanide Management Code Transport  
Pre-Operational**  
*Movis Logistics Limited*

Submitted to:

**International Cyanide Management Institute (ICMI)**

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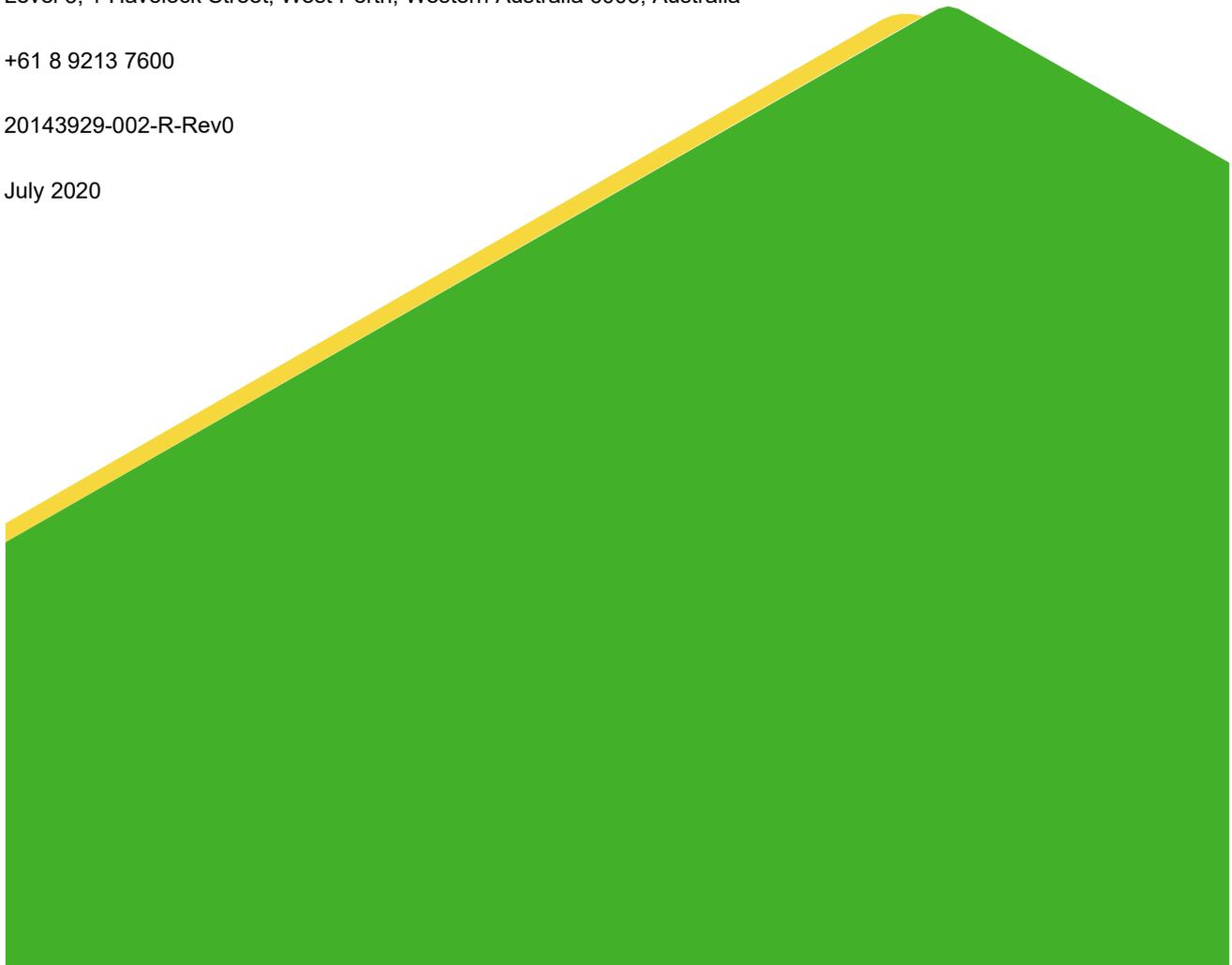
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## 1.0 INTRODUCTION

### 1.1 Operational Information

<b>Name of Transportation Facility:</b>	Movis Logistics Limited
<b>Name of Facility Owner:</b>	Movis Logistics Limited
<b>Name of Facility Operator:</b>	Movis Logistics Limited
<b>Name of Responsible Manager:</b>	Thomas Armah, Head of SHEQ
<b>Address:</b>	2 <sup>nd</sup> Floor Wing A, Nicholas Plaza, Off Meridian Road, Community 1
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### 1.2 Audit Scope

The scope of this Pre-Operational Audit covers the road transportation of cyanide by Movis Logistics Limited (MLL). At the time of the audit MLL intends to undertake road transportation of cyanide product from the Ports of Tema in Ghana to its mine site customers in Ghana and West Africa and the Freeport of Monrovia to customers in Liberia.

### 1.3 MLL and Road Transportation

MLL is a Ghanaian entity and it has offices in Tema, Accra and Takoradi. MLL provides freight forwarding and logistics services in Ghana and surrounding west African countries. MLL intends to provide road transportation services for cyanide that is imported to Ghana through the Port of Tema to its mine site customers in Ghana and West Africa and the Freeport of Monrovia to customers in Liberia.

MLL intends to transport solid sodium cyanide as a >95% pure white briquette. The cyanide briquettes are packaged in Intermediate Bulk Containers (IBCs) with a capacity of 1000 kg or 1200 kg. The briquettes are stored within a woven polypropylene bag, sealed with a polyethylene plastic liner, within a wooden crate. Consignments of stock are transported in standard shipping containers (sea containers) of up to a maximum of 24.2 tons.

### 1.4 Trans-shipping Depots or Interim Storage Sites

Within the scope of this audit, there are no trans-shipping depots or interim storage sites, as defined in the audit protocol.

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## 2.0 AUDITOR'S FINDINGS AND ATTESTATION

in full compliance with

**Movis Logistics Limited is:**  in substantial compliance with  
(MLL)

**The International  
Cyanide Management Code**

not in compliance with

**Audit Company:** Golder Associates Pty Ltd

**Audit Team Leader:** Mike Woods, Exemplar Global (113792)

**Email:** [mwoods@golder.com.au](mailto:mwoods@golder.com.au)

### 2.1 Name and Signatures of Other Auditors

Name	Position	Signature	Date
Mike Woods	Lead Auditor and Transport Technical Specialist		29 July 2020

### 2.2 Dates of Audit

The pre-operational transport audit of MLL was undertaken over the period 12-19 June 2020.

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

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

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## 3.0 TRANSPORT SUMMARY

### 3.1 Principle 1 – Transport

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

#### 3.1.1 Transport Practice 1.1

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

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

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

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

MLL has committed to implement processes for selecting transport routes that minimises the potential for accidents and releases or the potential impacts of accidents and releases.

MLL has developed the *Route Selection and Risk Assessment Procedure* to guide the selection and review of transport routes. Section 3.1 of the procedure requires the initial planning of the transport route selection and review to include the following:

- Assessment of the various routes available for the transportation by conducting a review of the route by using maps, liaising with regulators such as the Ghana Environmental Protection Authority (EPA) and Ghana Highway Authority and equivalent regulators in Niger.
- Proximity to rivers and water.
- Proximity to schools
- Number of villages and towns
- Number and location of hospitals and clinics for emergency response
- Type and number of bridges including an assessment of the condition and suitability
- Communication blackout areas
- Steep gradients and sharp corners
- Road surface type and condition
- Construction or detours
- Potential impacts of inclement weather
- Suitable stopping positions
- Distance
- Traffic levels

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- Police check points
- Additional road infrastructure such as T -junctions, ramps, toll gates and pedestrian crossings.

Following the initial assessment, the routes are compared to determine the preferred route. If necessary, MML has committed to seek assistance from the mine site, appropriate government regulators and cyanide producer to determine the best possible route.

MML has committed to implement a procedure to evaluate the risks of selected cyanide transport routes and take the measures necessary to manage these risks.

Hazards identified during the route assessment and selection process are to be risk assessed using the process detailed in the *Route Selection and Risk Assessment Procedure* as follows:

*In conducting the risk assessment the following process will be followed:*

- a) *Identifying the hazards (route assessment or survey)*
- b) *Analysing the risks*
- c) *Evaluating the risks*
- d) *Identifying all control measures*
- e) *Implementing the control measures*
- f) *Re-evaluating the risks*
- g) *Monitoring and review of risks*

This process is to be conducted by the Transport Manager and SHEQ Manager and includes them both travelling the selected transport route to do a route survey that physically assesses and records the hazards. Each identified hazard is then risk assessed and controls developed to mitigate the risks. The results are used to decide the most appropriate route which is presented to suppliers and the mine site for review.

*Route Risk Assessments* incorporating the above were observed for:

- Tema Port to Karma Mine, Burkina Faso
- Tema Port to Hounde Mine, Burkina Faso
- Freeport of Monrovia, Liberia to Yekepa Mine, Liberia.

MML has committed to implement a processes to periodically re-evaluate routes used for cyanide deliveries.

The *Route Selection and Risk Assessment Procedure* provides that the transport route risk assessments are to be reviewed and updated annually, or when there is a significant change to a transport route.

The procedure also states that Movis will liaise with the EPA on any intended changes to the designated cyanide transport routes. The TMP for the transportation of sodium cyanide will then be updated as required.

The TMP also details that the cyanide transport route will be reviewed annually to ensure that the best routes are used. The plan also requires *Feedback Reports* to be completed by the Escort Leader after the return of each journey. MLL has developed these forms.

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

Hazards identified during the route assessment and selection process are risk assessed using the process detailed in the *Route Selection and Risk* are recorded in the route assessment and the controls are detailed in the TMP.

MLL has committed to seeks input from stakeholders and applicable governmental agencies as necessary in the selection of routes and development of risk management measures.

The *Route Selection and Risk Assessment Procedure* requires the review and assessment of available transportation routes including liaison with regulators such as the Ghana EPA in order to understand their preferred route option. The procedure states that if necessary, assistance will also be sort from the mine site to determine the best possible route. Following the *Route Risk Assessment*, the route is agreed to by all parties including the EPA, suppliers and the mine site.

MLL will not routinely directly consult the community as MLL uses authorised commercial routes for the transportation of cyanide and consults through regulatory agencies.

MLL has committed to use road convoys to address safety concerns during transport.

The *TMP* provides the following:

- Vehicles should always travel in convoy.
- All departures and stops are pursuant to the Journey Management Plan.
- No consignments shall be transported between evening and dawn but for departure from the port to avoid congestion.
- Trucks in convoy maintain cell phone communication where and when necessary.
- Escort personnel follow the Call Points.
- All transport vehicles shall be equipped with effective communication (mobile phone) and tracking systems.

The *Route Risk Assessments* list traveling in convoy with an escort as a generic control to reduce risk for all convoys.

MLL has committed to advise external responders and medical facilities of their roles during an emergency response. The Cyanide Emergency Response Plan (CERP) identifies responsibilities for the Police, Fire Service, Ambulance, EPA, and the Mine Site as external responders.

Direct engagement of communities would not be undertaken by MLL as the communities are not designated a role as part of the planned response to an emergency involving cyanide negating the need for community consultation on this issue.

MLL does not subcontract its cyanide transport operations.

### 3.1.2 Transport Practice 1.2

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

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

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

MLL 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.

MLL has committed to only use trained, qualified and licensed operators to operate its transport vehicles.

Section 3.0 of the TMP provides training commitments to be completed by escorts and drivers including defensive driving, emergency response and convoy management.

In order to drive a heavy-duty truck in Ghana, the operator must hold a Class "F" Licence. The Transport Manager tracks licence currency through a database and checks are made prior to the allocation of drivers to the convoy. A review of drivers found them to have current Class "F" Licences.

Licences issued by Ghanaian regulatory authorities are recognised by Economic Community of West African States (ECOWAS) countries.

MLL has committed to train all personnel operating cyanide handling and transport equipment to perform their jobs in a manner that minimises the potential for cyanide releases and exposures. The training does include measures to minimise the potential for cyanide releases and exposures including defensive driving, driving in convoys and response to incidents.

The Transport Management Plan (TMP) details training requirements for drivers and escort personnel including that all existing and new employees must complete mandatory training prior to transporting.

MLL does not subcontract its cyanide transport operations.

### 3.1.3 Transport Practice 1.3

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

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

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

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

MLL has committed to only use equipment designed and maintained to operate within the loads it will be handling when transporting cyanide.

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The TMP states that Road prime movers and trailers shall be maintained to manufacturer's specifications and be subjected to MLL standard during the carrier selection process.

MLL has developed and maintenance schedule and equipment checklists for both heavy duty (HD) vehicles and escort vehicles. There is also a breakdown procedure.

MLL operates five to seven axle truck/trailers with a flatbed trailer that is designed to carry up to a maximum of two 6-m (20 foot) containers (on 7 axle truck) with a total weight of approximately 48.4 tonnes.

The number of containers loaded onto the trucks varies depending on the client and the trailer is sized accordingly. Trucks and trailers suitable for transporting consignments are only to be authorised by the SHEQ and Transport Managers.

Axle load regulation in Ghana is applicable to all ECOWAS countries.

MLL has committed to implement procedures to verify the adequacy of the equipment of the load it must bear.

The TMP states that prime movers and trailers shall be maintained to manufacturer's specifications and be subjected to government standards. Trucks and trailers suitable for transporting consignments will only be authorised by the SHEQ, Logistics and Transport Managers.

The Escort Leader is responsible for the pre-departure inspection process including measures to ensure that the trucks transporting the consignment are roadworthy. All vehicles (prime movers and trailers) are inspected using the *Pre-Departure Checklist*. Specific truck/trailer combinations are also inspected (for transport of consignments) so that no combination is overloaded before leaving the port. Any defects identified are to be rectified prior to departure and signed off by Movis' Escort Leader.

MLL has developed a maintenance program which involves regular preventive maintenance services to be undertaken at or before the manufacture's recommended mileage intervals.

MLL has committed to implement procedures to prevent overloading of vehicles. The client advises MLL of the container details (including weight) prior to the assignment of the trucks by the Transport Manager.

All vehicles (prime movers and trailers) are inspected by the Escort Leader using the *Pre-Departure Checklist*. Specific truck/trailer combinations are also inspected (for transport of consignments) so that no combination is overloaded before leaving the port.

MLL does not subcontract its cyanide transport operations.

### 3.1.4 Transport Practice 1.4

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

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

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

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

MLL has committed to implement procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer's packaging.

The *Pre-Departure Checklist* requires checks on the following information:

- Safety data sheets (SDS)
- Correct labelling (marine pollutant and 1689)
- Container door seals
- Twist locks – damage, rotation, wear and greasing.

The TMP requires the following information to be supplied to the mine site before the convoy leaves the Port:

- Container numbers, container seals and shipping documents
- Confirmation that containers are undamaged and seals are in place
- Confirmation that all placards are on the containers and replaced where necessary.

Security seal checks are also undertaken throughout the journey from port to mine site.

MLL has committed to the use of placards to identify the shipment as cyanide, as required by international standards.

MLL's *Pre-Departure Checklist* requires a check for 1689 and marine pollutant labelling on containers.

The TMP also details that the containers used to transport solid sodium cyanide are marked with the required placards in accordance with International Maritime Dangerous Goods Code.

The *Route Selection and Risk Assessment Procedure* requires MLL to consider regulatory requirements that have the potential affect the transportation of dangerous goods in all countries through which it travels as part of the initial planning of the transport route. Specific requirements that are identified are incorporated within the TMP.

MLL has committed to implement a safety program for cyanide transport that includes (where appropriate or applicable) the following:

a) *Vehicle inspections prior to each departure/shipment.*

MLL requires vehicles to be inspected with the *Pre-Departure Checklist*. It is the responsibility of the Convoy Leader to ensure that the trucks transporting the consignment have had the *Pre-Departure Checklist* completed and are roadworthy.

b) *A preventative maintenance program.*

MLL has developed a maintenance program. This program requires regular preventive maintenance services to be undertaken at or before the manufacture's recommended mileage intervals. Services are undertaken by a qualified mechanic in accordance with the original equipment manufacturer (OEM) requirements.

c) *Limitations on operator or drivers' hours.*

MLL *Fatigue Management Procedure* provides measures to control fatigue. Some of these include:

- Maximum daily driving hours per driver of 10 hours
- The maximum driving time shall be 4 hrs followed by a maximum of 30 minutes rest. Alternatively, 2hrs driving and 15 minutes break can be adopted.
- The maximum driving hours within 24hr rolling period is 10hrs.
- Maximum duty hours within a rolling 7 day period is 70hrs.
- Off duty hours in a rolling 7 day period- A minimum of a continuous 24 hour break is required for each driver to ensure adequate resting.

MLL TMP also outlines that no consignments are to be transported between dusk and dawn (consignments are permitted to depart Port earlier to enable convoy to clear traffic congestion).

d) *Procedures to prevent loads from shifting.*

At the Ports, containers are fastened after being loaded onto trailers using twist locks and container belts. In addition to this, checks are undertaken as part of the *Pre-Departure Checklist*.

e) *Procedures by which transportation can be modified or suspended if conditions such as severe weather or civil unrest are encountered.*

MLL has a procedure to suspend operations for inclement weather or problems on the route.

The TMP notes that the Convoy Leader will manage the convoy suitably in adverse conditions. This will include adjusting convoy speeds due to bad roads, weather or dust conditions.

In the event of bad weather, the Convoy Leader will determine if it is safe for a convoy to start or continue with travel. If they determine that the convoy cannot continue the following steps are to be taken:

- Make use of the alternative route if one exists that is not affected by the existing bad weather conditions.
- If no alternative route exists, the convoy shall return or remain in the depot/yard and await instructions from the mine or for the weather condition to pass and then inform the mine that the convoy will proceed with its journey.
- Alternatively, the Convoy Leader will identify a safe parking area that exists and that was recorded in the route selection procedure. The convoy will park off and await mine instructions or for the weather to clear.

f) *A drug abuse prevention program.*

MLL has developed a drug and alcohol policy that cover alcohol, illicit drugs and prescription medication. MLL has committed to implement pre-employment, random and for cause testing in the work place.

g) *Retention of records documenting that the above activities have been conducted.*

MLL has committed to retain records are retained and template reports and forms have been developed.

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MLL does not subcontract its cyanide transport operations.

### 3.1.5 Transport Practice 1.5

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

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

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

Standard of Practice 1.5 requiring the operation to follow international standards for transportation of cyanide by sea and air is NOT APPLICABLE to MLL.

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

### 3.1.6 Transport Practice 1.6

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

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

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

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

MLL have committed to providing vehicles with a means to communicate with the transport depot, the mining operation, the cyanide producer and emergency responders.

The TMP includes a communication procedure for convoys travelling between ports and mine sites to ensure the safe arrival of product. The procedure requires loaded trucks to inform the mine site of the planned departure time. The departure time must also be entered into a communication log sheet and journey plan by the Delivery Clerk before the convoy departs.

While in convoy, trucks must maintain cell phone communication. Phones with multiple mobile communication services are used to avoid the case of limited or no reception. Escort personnel must call the Logistics Officer in Tema at designated Call Points along the route and all calls are logged in the communication log sheet.

Emergency contact details for authorities, emergency responders and medical facilities are provided as appendices in the CERP and the TMP. This includes internal emergency contacts, suppliers, mine site receivers, medical and emergency equipment contacts, and emergency contacts for other external responders.

The *Truck Tracking and Communication Procedure* details that all transport vehicles in the convoy shall be equipped with a tracking systems.

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Each convoy has a Global Positioning System (GPS) and a dashcam that continuously transmits position and other data from the convoy throughout the trip. Data collected includes vehicle ID, local time, status (i.e. end drive, parked, drive), current location, course speed and harsh breaking.

Communication equipment is tested to ensure it functions properly either periodically or through continuous use. The *Pre-Departure Checklist* includes a check for phone.

GPS tracking is checked prior to and throughout voyages through the review of reports generated by the tracking system.

Blackout areas are checked for during the route survey process. The combined use of cell phones with multiple mobile service providers has eliminated blackout areas along the transport routes.

MLL has implemented systems and procedures to track the process of cyanide.

The TMP requires Escort personnel to make contact with the Logistics Officer in Tema at the designated Call Points along the route.

The TMP provides that Prior to any convoy departure, MLL will inform the client by phone or e-mail with the following information:

- Quantity of Goods or containers to be moved.
- At least twice updates on the location of the convoy each day for more than a day journey before arriving at the client site.

MLL utilises a tracking system to determine the convoy location. The GPS tracking system continuously transmits position and other data from the convoy throughout the trip. Data collected includes vehicle ID, local time, status (i.e. end drive, parked, drive), current location, course, speed and harsh breaking.

MLL has committed to implement inventory controls and chain of custody documentation to prevent loss of cyanide during shipment. MLL have developed the *Customs Clearance Procedure* that details the process.

Following the initial inspection of each container, a way-bill is generated for each container. The way-bill accompanies the Driver during the delivery. The way-bill notes:

- Customers name and address
- Date
- Drivers name
- Vehicle registration
- Contents and quantity
- Container and seal numbers
- Receiving authority and date of receipt.

The way-bill is signed by the Driver and receiver upon receipt. Upon signing, the customer representative is acknowledging that the consignment was received in good condition and unopened.

The container integrity is also monitored throughout each trip.

MLL maintains records that indicate the amount of cyanide in transit during cyanide transportation activities.

The TMP requires all trucks and escort vehicles to have laminated cards showing the Safety Data Sheets for sodium cyanide.

A way-bill noting the quantity of cyanide is generated for each container and carried with the shipment.

MLL does not subcontract its cyanide transport operations.

## 3.2 Principle 2 – Interim Storage

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

### 3.2.1 Transport Practice 2.1

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

MLL 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:**

Transport Practice 2.1 requiring transporters design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures is NOT APPLICABLE to MLL.

Within the scope of this audit, there are no trans-shipping depots or interim storage sites, as defined in the audit protocol.

## 3.3 Principle 3 – Emergency Response

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

### 3.3.1 Transport Practice 3.1

**Prepare detailed Emergency Response Plans for potential cyanide releases.**

MLL 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:**

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

MLL has developed a Cyanide Emergency Response Plan (CERP) for road transportation of solid sodium cyanide. The CERP is supported by the TMP and route assessment procedure.

MLL has also developed a Neutralisation Procedure and Spillage and Accident Procedure.

The CERP is specific to the transportation routes intended to be used by MLL. The *Specific Emergency Response Guide* Section details incident types and it includes scenarios for truck transportation. It details the following scenarios:

- Handling Wet Sodium Cyanide
- Roll-over of Shipping Container with spill in or outside a community
- Rollover of Cyanide container without spill in or outside a community.

For each section it provides the response actions required.

The CERP considers both the physical and chemical form of cyanide. The CERP is based around the transport of solid cyanide and the potential for liberation of hydrogen cyanide gas if exposed to water. The consideration of transport infrastructure has also been undertaken by MLL through route risk assessments. Route risk assessments detail the condition of the road, traffic hazards, intersections and issues to be managed by the driver along the route. This information has been used to inform the scenarios and associated response actions.

The *Route Selection and Risk Assessment Procedure* considers the design of the intended transport vehicles:

*Solid sodium cyanide packaged in Intermediate Bulk Containers (IBC's) of 1000Kg capacity and containerised (20ft containers) will be transported by road using a 7 axle truck with flatbed trailer. The sodium cyanide solid briquettes are stored within a polypropylene bag and sealed within a wooden crate as per the International Maritime Dangerous Goods Code for group 1 hazardous goods. The quantity of solid sodium cyanide in each 20ft container is 20 tons.*

The CERP has been written up based on the outcomes of the *Route Risk Assessment*.

The CERP includes a description of the response actions for an anticipated emergency situation.

Section 1.2 of the CERP provide incident response guidelines and Section 4 of the CERP contains a Specific Emergency Response Guide that details incident types and it includes scenarios for truck transportation. It details the following scenarios:

- Handling Wet Sodium Cyanide
- Rollover of Cyanide Container with spill in or outside a community
- Rollover of Cyanide container without spill in or outside a community.

A decontamination of a persons and equipment procedure is also included in the CERP. The CERP also details internal and external responsibilities in the event of an emergency.

The CERP identifies the roles of outside responders and medical facilities in the event of an emergency. It outlines the role and responsibilities of the following personnel in the event of an emergency:

- Escort Leader
- Vehicle driver
- Emergency Response Team
- Police services

- Ambulance services and medical facilities
- Fire services
- EPA
- Mine Site.

In the event of an emergency, the plan provides that MLL will maintain overall responsibility and coordination. Emergency contact numbers for the specified entities are provided in CERP.

### 3.3.2 Transport Practice 3.2

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

in full compliance with

MLL is

in substantial compliance with

**Transport Practice 3.2**

not in compliance with

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

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

MLL has committed to providing emergency response training of appropriate personnel.

As noted in Standard of Practice 1.2, MLL has developed a training scheme for its drivers and escort personnel. The minimum training requirements are:

- Cyanide awareness
- Defensive driving
- Emergency response scenario (mock drill) training
- Fire fighting
- Convoy management.

MLL has used a third party provider to provide cyanide awareness training to its personnel and training attendance records were provided.

The emergency response training is detailed in section 3.1 of the TMP under Minimum Training and Road Transport Requirements. Two yearly refresher training is specified.

Descriptions of the specific emergency response duties and responsibilities for internal personnel and external entities are detailed in the CERP. These personnel/entities include:

- Escort Leader
- Vehicle driver
- Emergency Response Team
- Police services

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- Ambulance services
- Fire services
- EPA
- Movis Ghana Ltd
- Mine Site.

In the event of an emergency, the plan provides that MLL will maintain overall responsibility and coordination through the Escort Leader. Emergency contact numbers for internal and external entities are provided in the CERP.

MLL has developed a list of its emergency response equipment that should be available during the transport route. The quantity and condition of the equipment is checked as part of the *Emergency Equipment Checklist* as part of pre-departure checks.

It is the Escort Leader's responsibility to ensure that all emergency equipment is checked and are up to manufactures specification prior to convoy departure.

MLL has committed to have the necessary emergency response and health and safety equipment, including personal protective equipment during transport. The quantity and condition of the equipment is to be checked as part of the pre-departure process. It is the Escort Leader's responsibility to ensure that all emergency equipment is checked and are up to manufactures specification prior to convoy departure.

MLL's transport vehicle operators (drivers and escorts) receive initial and periodic refresher training in emergency response procedures including implementation of the CERP. As detailed in the TMP, is planned at a minimum on a two-yearly basis.

MLL has developed a process to inspect emergency response equipment and assure its availability when required. The quantity and condition of the equipment is checked as part of the *Emergency Equipment Checklist*.

It is the Escort Leader's responsibility to ensure that emergency equipment is up to manufacture's specification prior to convoy departure.

MLL does not subcontract its cyanide transport operations.

### 3.3.3 Transport Practice 3.3

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

MLL is  in full compliance with **Transport Practice 3.3**  
 in substantial compliance with  
 not in compliance with

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

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

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MLL has developed procedures that include current contact information for notifying outside response providers, and medical facilities of an emergency.

The Emergency contact information is contained in Appendix 2 of the CERP. This includes internal emergency contacts, suppliers, mine site receivers, medical and emergency equipment contacts, and emergency contacts for other external responders. The information includes procedures for notifying regulatory agencies and notification of potentially affected communities would be undertaken by regulatory agencies.

MLL’s management personnel are responsible for contacting external entities in cases of emergency.

MLL has committed to implement systems to ensure that internal and external emergency notification and reporting procedures are kept current.

The *Route Risk Assessment* is reviewed annually or when there is a significant change to a transport route. When this occurs, and following feedback received from agencies, the CERP is to be updated as required and re-issued to selected medical providers and emergency services along the route.

As part of this process, emergency responder contact information is checked and updated as required if comment is received from emergency responder.

**3.3.4 Transport Practice 3.4**

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

in full compliance with

MLL is

in substantial compliance with

**Transport Practice 3.4**

not in compliance with

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

MLL 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.

MLL has developed a procedure 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 CERP includes descriptions of the response actions for an anticipated emergency situation. The CERP includes the following sections covering clean up and decontamination:

- Basic Incident Response Plan
  - First Response
  - Establishing Control of the Incident.
- Basic Decontamination of a Contaminated Persons
  - Decontamination of Personal Protective Equipment.

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- Specific Emergency Response Guide
  - Handling wet sodium cyanide
  - Roll-over of shipping container with spill in or outside a community
  - Rollover of cyanide container without spill in or outside a community.

MLL has also developed a specific procedure for neutralisation. The procedure details the process for obtaining and using of sodium hypochlorite as the preferred reagent and the addition rates. The CERP provides that remediation of spills would be undertaken by MLL personnel and would oversee the transportation of the recovered material to the mine site.

MLL prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water.

The CERP states:

*Under no circumstances will sodium hypochlorite or Ferrous Sulphate or any cyanide neutralizing chemicals be used in neutralizing cyanide that has entered surface water as this is strictly prohibited.*

### 3.3.5 Transport Practice 3.5

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

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

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

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

There are provisions for periodically reviewing and evaluating the adequacy of the CERP. Section 7 of the CERP provides that it will be reviewed annually and updated by the Head of SHEQ.

The TMP provides for Emergency Response Training including Mock Emergency Drill every two years. It also that in case of any potential incident and an investigation report issued, the company will review and revise the Emergency Response Procedures. Also, this will be reviewed based on findings from yearly mock drills conducted.

MLL has committed to provisions for periodically conducting mock emergency drills in the CERP.

Mock drills are conducted as part of the mandatory emergency response training (Emergency response scenario (mock drill) training) conducted every 2 years.

A mock drill (exposure and spill clean-up) was conducted in June 2018. The drill was reported, improvements identified and duly implemented and provided as evidence of how the process would work.

MLL has a procedure to evaluate the Plan's performance after its implementation and revise it as needed. The TMP notes that in case of any potential incident and an investigation report issued, the company will review and revise the Emergency Response Procedures. Also, this will be reviewed based on findings from yearly mock drills conducted.

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At the time of the audit the plan has not needed to be implemented.

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## 4.0 IMPORTANT INFORMATION

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

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## Signature Page

**GOLDER ASSOCIATES PTY LTD**



Mike Woods  
*ICMC Lead Auditor*

MCW/EWC/ds

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**APPENDIX A**

**Important Information**

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

This Report constitutes or is part of services ("Services") provided by Golder to its client ("Client") under and subject to a contract between Golder and its Client ("Contract"). The contents of this page are not intended to and do not alter Golder's obligations (including any limits on those obligations) to its Client under the Contract.

This Report is provided for use solely by Golder's Client and persons acting on the Client's behalf, such as its professional advisers. Golder is responsible only to its Client for this Report. Golder has no responsibility to any other person who relies or makes decisions based upon this Report or who makes any other use of this Report. Golder accepts no responsibility for any loss or damage suffered by any person other than its Client as a result of any reliance upon any part of this Report, decisions made based upon this Report or any other use of it.

This Report has been prepared in the context of the circumstances and purposes referred to in, or derived from, the Contract and Golder accepts no responsibility for use of the Report, in whole or in part, in any other context or circumstance or for any other purpose.

The scope of Golder's Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

At any location relevant to the Services conditions may exist which were not detected by Golder, in particular due to the specific scope of the investigation Golder has been engaged to undertake. Conditions can only be verified at the exact location of any tests undertaken. Variations in conditions may occur between tested locations and there may be conditions which have not been revealed by the investigation and which have not therefore been taken into account in this Report.

Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder's affiliated companies or the employees, officers or directors of any of them.

By date, or revision, the Report supersedes any prior report or other document issued by Golder dealing with any matter that is addressed in the Report.

**Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification**



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