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ICMC PRE-OPERATIONAL CERTIFICATION

SUMMARY REPORT

INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Transportation Summary
Preoperational Certification Audit Report

OFFSHORE FREIGHT & SERVICES LTD

Date of Audit: 10th to 12th November, 2025

For the

International Cyanide Management Institute
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INTRODUCTION

1.1 Operational information.

Name of Transport Company	:	Offshore Freight & Services Ltd
Name of Transport owner	:	Offshore Freight & Services Ltd
Name of facility operator.	:	Offshore Freight & Services Ltd
Name of responsible manager	:	Kweku Philemon Ackah
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Acronyms and Abbreviations

OFSL ..... Offshore Freight Services Limited

ERP..... Emergency Response Plan

ICMC..... International Cyanide Management Code

ICMI..... International Cyanide Management Institute

HP ..... Horse power

HSE ..... Health, Safety & Environment

IMDG ..... International Maritime Dangerous Goods

RRA.....,,,, Route Risk Assessment

IBC..... Intermediate Bulk Container

ECOWAS..... Economic Community of West African States

TMP..... Transport Management Plan

1.1 PROFILE OF COMPANY AND TRANSPORTATION OPERATIONS

Offshore Freight & Services Limited (OFSL) is an ISO-certified, wholly Ghanaian-owned logistics and freight forwarding company, incorporated in 2015. The company specializes in international freight forwarding and logistics, with a strong focus on Project, Oil and Gas, Mining, and aid and relief logistics across Ghana and West Africa.

OFSL's team comprises experienced logistics professionals with over three decades of combined experience in international freight forwarding, logistics, and supply chain management. Through strategic global partnerships, the company manages international cargo pickups, airline and vessel bookings, and ensures efficient delivery via air, sea, and road networks.

Core Services

a) Airfreight (Inbound & Outbound)

b) Ocean Freight (Full Container Load, Break Bulk, Project Cargo)

c) Trucking (Domestic & Cross-border)
d) Contract Logistics & Supply Chain Solutions
e) Heavy Lift Services & Equipment Rental
f) Warehousing (Open & Closed)
g) Hazardous Cargo Handling and transportation

Offshore Freight operates in full compliance with Foreign Corrupt Practices Act (FCPA), UK Bribery Act, Anti-Money Laundering, and Environmental Protection Authority and other international standards. The company upholds strict ethical and safety practices and is recognized for professional compliance in logistics operations.

Offshore Freight & Services Ltd is also a signatory to the International Cyanide Management Code (ICMC) and is committed to maintaining full adherence to its Transport Code principles and verification protocols.

Audit Scope

The audit covers the proposed transportation of cyanide in 20ft shipping containers from the port of Tema to three (3) mining companies in Ghana which the transporter intends to transport cyanide to. The ICMI verification protocols were used as guidelines in conducting this preoperational certification audit.

Audit Schedule

This Pre-Operational Certification Audit was conducted from 10th to 12th November, 2025.

Auditor's Finding.

This operation is

X in full compliance

in substantial compliance

not in compliance

with the International Cyanide Management Code.

Auditor Information.

Audit Company: **BAM Consultancy Services Limited**

Lead Auditor & Technical Expert Auditor: **Benjamin Amoo-Mensah**

Lead Auditor E-mail: **csbpghana@ghana.com**

Names and signatures of other Auditors: **None.**

Auditor 1: _____ _____

Name (Print / Type Signature

Auditor 2: _____ _____

Name (Print / Type Signature

Auditor 3: _____ _____

Name (Print / Type Signature

Dates of Audit: This audit was conducted in the period of 10th to 12th November 2025.

Auditor Attestation.

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit Lead Auditor, 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 Cyanide Code Auditors.

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

Date: 24 November 2025

Principle 1, Transport:

Transport cyanide in a manner that minimizes the potential for accidents and releases.

Transport Practice 1.1:

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

The operation is:

✓ in full compliance with Transport Practice 1.1

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

Offshore Freight has developed a Route Selection Procedure and the procedure applies to all its transportation operations. A team consisting of the QHSE Officer, Transport Manager and escort driver does the route selection. The team drives on possible routes to the mine site in question and assess all the bridges, road condition, population and all hazards and note them. The team observes the road condition, records distances covered and take of photos of all hazards on the route.

The route selection involves the following;

- Preliminary Route Identification i.e. identifying possible routes from the port to mine sites.
- Route Survey and Data Collection i.e. conduct physical surveys to assess, pitch and grade, steep inclines
- Stakeholder consultation

The Route Selection procedure indicates that the transporter considers the following in selecting cyanide transportation routes.

- Areas with high population density (urban areas, schools, markets)
- Road Condition (potholes, shoulders of road)
- Prevalence and proximity of water bodies
- Fog prone and flood prone areas
- Infrastructure reliability (bridges, railway lines)
- Security concerns (crime prone areas, civil unrest)
- Pitch and grade of road

Offshore Freight has committed to implementing a process to evaluate the risks of selected cyanide transport routes and has taken measures to manage these risks. The company has a Risk Assessment Procedure #OFSL-CDS-RAP25-10-20.

Risk Assessment has been conducted on the route from Tema port, Ghana to three (3) mining sites in Ghana which the company intends to transport cyanide to. Each hazard on the selected routes have been risk assessed and control measures put in place. In conducting the RRAs the following were done;

- Hazard identification
- Performing a structured Risk Assessment
- Using Risk Assessment Matrix to assign risk levels
- Recommending risk mitigation measures where necessary (putting control measures in place).

The following records of Route Risk Assessment from the port of Tema, Ghana were sighted and scrutinized by auditor;

- Route Risk Assessment from Tema port to Cardinal Namdini mine
- Route Risk Assessment from Tema port to Goldfields Tarkwa mine
- Route Risk Assessment from Tema port to Perseus Mining

The RRA has the various controls to minimize or eliminate the hazards. The controls put in place for the risk identified include;

- Maintaining speed between 40Km-65Km/h depending on road condition
- Watching out for pedestrian crossing
- Observing traffic and road users joining the road
- Maintaining lane alignment/maintaining safe distance
- Daylight driving at all times
- Use of appropriate gears
- Strictly following road signs

The Route Selection procedure mentions that the route risk assessment will be conducted annually or as when necessary to verify existing risk data, assess any infrastructure changes (e.g. roadworks, bridges etc.) and evaluate the effectiveness of the previously implemented controls. The Route Risk Assessment is used as training tool. The risks on the roads and the control measures are used in training the drivers and escort team.

OFSL is committed to periodically re-evaluating the risks on the route. The transporter currently transports chemicals such as Ammonium nitrate, Hydrogen peroxide to the mines and has a process of getting feedback on the road condition. In doing the re-evaluation of the routes, the transporter does and has committed to continue with the following;

- Field inspection of critical segments of the routes.
- Review of recorded feedback from drivers and incident reports.

Feedback reports Form is used to record the road conditions which includes road surface, poor visibility areas, crowded areas and any other conditions that have developed on the road. On the feedback report, provision has been made for control measures. The feedback on the road conditions are discussed at Toolbox meetings prior to the next delivery to a particular mine site. It is the intention of the transporter to continue same when they commence cyanide deliveries to the mines. Sampled toolbox attendance registers were sighted and noted. It was evident from documentation presented that the transporter is committed to periodically re-evaluating the routes in order to identify any changes on the routes from the port to the mine sites.

OFSL has committed to implementing a system to document the measures taken to address risks identified on the selected routes. The control measures (maintaining speed between 40Km/h and 65Km/h, observing traffic and road signs etc.) have been documented. The condition of the road which includes constructions on the road surface, potholes, washouts, poor visibility zones, road blocks and sharp diversions have been documented including measures to mitigate or eradicate the risks on selected route. There is evidence of Toolbox meeting attendance sheets on record. Records of the RRAs, Route Survey reports and feedbacks reports were sighted and noted.

OFSL has sought input from various stakeholders and applicable governmental agencies in the selection of routes and development of risks management measures. The has secured a permit from the Ghana Environmental Protection Authority (permit # EPA/GAER/TM/HA/13) dated 14th October 2025 expiring in 15th October 2026 in preparation towards the commencement of their cyanide transportation operation. Also contacted in the selection of the routes are Ghana Ambulance Service, Ghana National Fire Service, selected medical facilities and Ghana Police. The government agencies acknowledged receipt of the notification letters. Acknowledgement letters were sighted. Evidence presented showed that the transporter has sought input from the relevant entities.

The community is not directly involved the selecting of the route and applicable risk measures. The Ghana EPA will be responsible for community education in consultation with OFSL in case of an incident.

OFSL has committed to using escorts, convoys and safety and security measures to do deliveries of cyanide to the mines. The transporter has developed a Transport Management Plan(#OFSL/CDS-TMP/07/15). The TMP mentions cyanide deliveries will be made in convoy with escort to mining sites.

The escort personnel will be in a dedicated escort vehicle. The procedure states that the composition of the escort team will be as follows;

- 1 Escort leader
- 1 police personnel
- 1 Escort driver
- 1 Transport Coordinator

OFSL will not subcontract any of the transportation of cyanide business.

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.

The operation is:

✓ in full compliance with Transport Practice 1.2

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified

OFSL uses trained, qualified, and licensed operators to operate its vehicles. The transporter has employed qualified drivers with licence "F" which permit them to drive trucks. The driving license is replaced every 6 years and renewable every 2 years.

The following criteria is used in employing drivers.

- Applications are invited for prospective drivers and staff
- Selected applicants are invited for interviews
- Shortlisted drivers are taken through practical driving test
- Successful applicants are given employment and taken through a series of training.

The selected persons are taken through the following mandatory training programs;

- Defensive driving
- Cyanide and Emergency Response Training
- Basic First Aid

- Fire Fighting

The Transport Management Plan states that a new driver will not be left alone to drive a cyanide truck for the first time. A new driver will sit with an experience driver to do two trips to the mine site before being allowed to join a convoy of cyanide trucks to the mines.

OFSL has committed to train its personnel in cyanide handling and transport equipment to perform their jobs in a manner that minimizes the potential for cyanide releases.

The company has a Training Matrix # OFSL-CBS-TM24/12/20. The Training Matrix details the following training programs and the frequencies of the training;

- Defensive driving (Biennially)
- Cyanide and Emergency Response Training (Annually)
- Basic First Aid (Annually)
- Fire Fighting (Annually)
- Mock drill (Annually)

Defensive driving training is conducted by the National Road Safety Authority, Fire Fighting training is conducted by Ghana National Fire Service, Cyanide Training and Emergency Response training are organized by a Hazmat Training Company in Ghana. Training assessment records and records of training attendance registers of the aforementioned training were sighted and noted by auditor. The contents of each training were scrutinized during the audit. Records of training certificates issued for the participants were sighted. Training details were also scrutinized by the auditor. A review of training records of drivers and escort team against the company's training matrix indicates that training have been completed.

Selected drivers and escort team were interviewed to ascertain whether there are competent and knowledgeable in their jobs. The performance of all those interviewed proved that the drivers and escort team have been properly trained.

OFSL will not subcontract Transport Practice 1.2.

Transport Practice 1.3:

Ensure that transport equipment is suitable for the cyanide shipment.

The operation is:

✓ in full compliance with Transport Practice 1.3

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified

OFSL is committed to using only vehicles of the required configurations designed and maintained to operate within the loads it will be bearing. The Transport Management Plan has the configuration of the trucks in it. Clause 3.3(Fleet Inventory and Axle Configuration) of the TMP, details the capacities of the company's vehicles and the configurations. The company is committed to using Renault, DAF and MAN diesel vehicles of the required horsepower (HP) and load capacities to deliver cyanide to the mines. The horsepower (HP) of the Renault trucks is 480 HP having a total weight capacity of 90t, DAF is 460HP with total load capacity of 80t, and the MAN is 480HP with safe load capacity of 90t.

The design of the trucks are as follows;

- 6x4 truck with 4 axle trailers configuration
- 6X2 trucks with 4 axle trailers configuration

The transporter has both a Preventive and Corrective Maintenance program for all its vehicles. In addition to daily inspections, preventive maintenance activities are carried out every month to proactively identify and correct issues before the trucks depart for a journey. Maintenance activities are performed by qualified company mechanics and documented in a manner that is appropriate. The tractor unit and the trailers are subjected to stress to during maintenance works to ensure that the trucks are in good condition to handle loads. The vehicle's load capacities were verified in the manufacturer's manual of the vehicles that the transporter proposes to use for cyanide transportation.

The company is committed to using Renault, DAF and MAN diesel vehicles of the required horsepower (HP) and load capacities to deliver cyanide to the mines. The horsepower of Renault trucks is 480 having a total weight capacity of 90t, DAF is 460 with total load capacity of 80t, and the MAN is 480 with safe load capacity of 90t. Each of these brands of trucks will carry 2 x 20ft containers of cyanide. The configurations of the trucks i.e. 6x4 coupled with 4 axle trailer and 6x2 with 4 axle trailers are suitable to take 2x20ft containers as per their load capacities contained in the manufacturer's manual.

The transporter is committed to ensure that trucks are not overloaded. There are procedures in place to prevent overloading of the transport vehicle. The Bill of Ladings has the weights of containers on them which will guide the transporter. The vehicles will be weighed when they load from the port at designated weighing bridge when they exit the port. Records of weighing bridge tickets showing the weights of selected vehicles were sighted. The load capacities of the vehicles designated to be used for cyanide transportation, when loaded with 2x20ft of cyanide is below the Economic Community of West Africa States (ECOWAS) axle load regulation.

OFSL will not subcontract any of the above activities in Transport Practice 1.3

Transport Practice 1.4:

Ensure that transport equipment is suitable for the cyanide shipment.

The operation is:

✓ in full compliance with Transport Practice 1.4

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified

OFSL is committed to implement procedures to ensure that cyanide is transported in a manner that maintains the integrity of the producers packaging. Sodium Cyanide will be transported in the original packaging provided by the producer. Clause 6 of the Transport Management Plan gives a description of how sodium cyanide is package. It mentions that the cyanide is packaged in 1-ton sacs. The sacs are covered with polyethylene to prevent moisture from getting into contact with it. The sacs are encased in plywood boxes with a pallet at the base in accordance with the IMDG code. The IBCs are packed in 20ft standard shipping containers and doors secured with container seals. The weight of the cyanide briquettes in each 1x20ft is 20 tons. During the transportation of cyanide containers, the seals will remain intact during the entire duration of the journey and be broken at the mine site by the mine operator.

The transporter has a container Status Report used for carrying out the inspection of containers from the port to the mine site. Things inspected on the container are container seals, placards, container doors, signs of corrosion and the general condition of the container. The company has GPS tracking devices fixed in the trucks and will monitor the movement of the trucks till they reached the mine sites. Waybills and Bill of lading have the seal numbers of the containers. The mine operator receiving the containers will sign the waybill and stamp after satisfying himself that the containers is intact and have not been tempered with.

The TMP describes the signage to be used to identify the shipment as cyanide as required by international standards as well as the IMDG code and are expected to be displayed conspicuously on all four sides of a container by the producer. Clause 6.2 (Labelling requirements) of the TMP talks about labelling of containers used for cyanide. The placards mentioned are Hazard Class 6 skull & Cross bones, UN number 1689, and Marine Pollutant labels. As per the TMP, the required placarding namely Marine Pollutant and Hazard Class 6 and cross bones will be displayed in front and at the rear of the trucks. The transporter has ordered for cyanide placards which will be used when the company commences the transportation of cyanide. The required signage(s) identifying the shipment as cyanide were verified by auditor.

OFSL has implemented a safety program for all its general transportation operations for the mines and intend to implement same for cyanide deliveries.

(a) The transporter carries out the following inspections before vehicles sets off for a trip. The inspection includes;

- Vehicle Inspection
- Container Status Report(inspection)
- Escort Equipment inspection

Prior to departure of the vehicles, the vehicles, containers and escort equipment will be inspected and the Vehicles Pre-departure Checklist, Container Status report and Escort Equipment checklist completed. Sampled copies of completed Vehicle Inspection checklists were sighted and noted by auditor.

(b) The transporter has both a Preventive and Corrective Maintenance program for all its vehicles. In addition to daily inspections, preventive maintenance activities are carried out every month to proactively identify and correct issues before the trucks depart for a journey. Maintenance activities are performed by qualified company mechanics and documented in a manner that is appropriate. All maintenance and inspection activities are;

- Recorded systematically
- Vehicles are tagged with vehicle Identification numbers, dates, type of services and corrective action taken.
- Every work done on the vehicles are signed off by the Transport Manager or Maintenance Supervisor

Prior to any deliveries of goods, inspection is carried out by the Escort leader to identify any faults on the vehicles. Trucks are inspected both before entering the port to load and after they have been loaded. A Vehicle Inspection Checklist is completed during the inspection. Any faults identified is reported Transport Manager who raises a work order using the Maintenance Request Form to the

Maintenance Supervisor to work on the fault. The truck in questions is worked on and the vehicle tested and Maintenance Request Form signed to signify that the work has been completed. Tyres are also serviced by the company's vulcanizers. A tyre is replaced with a new tyre when tyres reaches a minimum tread depth of 2.5mm. The company does not use any re-treaded tyres. Auditor scrutinized maintenance records of selected vehicles. The vehicles are serviced at an interval of 10,000Km as per the manufacturers specification and as stated in the Maintenance procedure. Maintenance are carried out on trailers when doing periodic maintenance which involves changing of engine oil, heater plucks, filters and greasing. Trailer maintenance includes greasing, checking the lock mechanism and checking for tear and wear.

(c) The transporter has a Fatigue Management Policy. The policy says that drivers are to ensure to strictly go by the company's policy of driving for 4hrs and take 30 minutes rest. The number of working hours per week is 72hrs. Drivers are to report any signs pf fatigue that may impact their work performance. As per the policy the drivers are expected to drive from 6am to 6pm. Night driving is prohibited.

(d) The transporter has a procedure to ensure that containers are secured to prevent them from shifting. Clause 6.3(Load Securing) of the TMP clearly states that the twist locks are inspected and verified that they are securely fastened on the containers. The escort leader will inspect and ensure that the twist locks are firmly in place and container is stabilized on the trailer. The container status checklist also mentioned that twist locks are to be inspected to ascertain whether they have secured the containers on the trailers.

(e) In case of civil arrest, bad weather condition and any adverse conditions the convoy will do the following.

- The convoy will stop immediately and park at a safer place
- The escort leader will notify the Managing Director
- The convoy leader or the Managing Director will inform the mining client

The convoy will continue the journey when the civil unrest or the weather conditions are okay. The decision to continue the journey will be made by the escort leader in consultation with the mine and the Managing Director.

(f) OFSL has a Drug and Alcohol Policy # OFSL-IMS-AT0-04. The policy states that the company has zero tolerance for drug and alcohol use while at work and that there are consequences when found to have been engaged in drug and alcoholism. A person found drank or have abused drugs will go through the following disciplinary measures.

- The employee is issued with a warning letter
- Suspended when he/she repeats the act
- Termination of employment.

Random testing for alcohol is conducted on the staff and an alcohol test form completed by the Safety Officer. Records of completed alcohol test checklists were verified by auditor and noted. A person suspected to have taken in an illegal drug undergoes drug test. The suspected person's urine or saliva is taken by the Safety Officer for testing at accredited medical laboratory for analysis. There is no evidence of anyone suspected to have taken in illicit drugs since the company was established in 2015.

The company has a Breathalyzer (Quick Check Alcohol Detector) which is used to conduct the alcohol test. The Breathalyzer was last calibrated on 12th January 2025 with the next calibration date 11th January 2026.

(g) OFSL has a Document Control Procedure which states that documents are to be retained for a period of 2 years before being disposed. The transporter intends to change the 2 years retention period to 4 years in the next review of the procedure. There is evidence that checklists, maintenance records, waybills etc. of the above activities have been retained. This was verified by the auditor.

OFSL will not subcontract above activity in Transport Practice 1.4.

Transport Practice 1.5: Follow international standards for transportation of cyanide by sea.

The operation is:

✓ in full compliance with Transport Practice 1.5

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

This Standard of Practice is not applicable. OFSL will not ship cyanide by sea.

Transport Practice 1.6:

Track cyanide shipments to prevent losses during transport.

The operation is:

✓ in full compliance with Transport Practice 1.6

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

The TMP mentions that the medium of communication with the mining company, producer and external and internal responders will be by use of Cell phones and Walkie Talkies. Walkies Talkies are used for internal communication between the drivers in convoy. There are no blackout areas on the routes as per the route survey that have been done. A list of emergency telephone numbers for the various emergency responders which will be kept with the Convoy leader were sighted by auditor. Portable Phone charges are installed in the trucks for charging phones. Walkie Talkies are charged before a trip and inspected. Walkie Talkies and cell phone are on the Escort Equipment checklist which will be completed prior to commencement of delivery of cyanide to a mine site.

OFSL ensures that all communication equipment (Cell phones and Walkie Talkies) are regularly tested to ensure they function correctly. Communication equipment such as cell phone and Atrams GPS are installed in the vehicles and are inspected prior to the departure of a convoy. The cell phones are inspected and pre-departure checklist completed. Cell phones and GPS are part of the items listed on the Escort equipment checklist. GPS are tested by tracking live a vehicle to ensure it is working perfectly.

It will be the responsibility of the Convoy leader to ensure that the communication equipment's are working effectively. The Walkie Talkies and the GPS were inspected by auditor.
There are no blackout areas along the routes to the mine site destinations the transporter intends to transport cyanide to. However, the escort leader will carry with him in the convoy two sim cards from MTN and Vodaphone service providers to ensure there is a still phone communication in case there is loss of cell phone reception for one of the service networks.

The transporter is committed to tracking the progress of the shipment. Atrams GPS tracking system is used to monitor the location and progress of shipments. The system is monitored 24/7 by the Safety Officer and the Transport Coordinator who checks the status of the vehicles every 2hrs and note the

locations of trucks and then notify the mining client about the Expected Time of Arrival at the mine. The transporter intends to give the password to the mining clients so that they can also track the location of a convoy. The GPS sends alerts to the Safety Officer and the Transport Coordinator in case a particular truck over speeds. The shipping line sends notification, Bill of Ladings and Packing list covering the shipments consigned to the mine to the transporter prior to arrival of a shipments. Updates are sent by the shipping line on the locations of a vessel.
OFSL currently does deliveries of other chemicals to some mining companies in Ghana. In addition to phone calls, Emails and WhatsApp messages are also used to communicate with the suppliers and mining company about the locations of the truck. Copies of Emails and WhatsApp communications covering general items delivered to three mine sites were sighted. Waybills are issued for all mining items delivered to a mine. The waybills have the container numbers, seal numbers, weight and name of the type of mining item. The waybills are stamped by the mine site personnel signifying that the containers have been received safely. The same process will be followed when the company commences the transportation of cyanide.

The transporter is committed to implementing inventory control and /or chain of custody documentation. Currently, all shipments (i.e. other mining items) delivered to the mines have Bill of Ladings and packing list specifying the gross weight accompanying them. Container Numbers, seal numbers, the gross weights of each freight container, producer's information, consignee's information, description of packaging & chemical details of shipment are specified on the Bill of Ladings. Similar information will be on cyanide Bill of Ladings. Waybills covering every shipment of cyanide will be issued to cover each container and they will be handed are to the mine site representative. The mine representative receiving the shipment will sign it to ensure that the containers have been received intact. Copies of waybills of some mining items as well as copies of container Interchange documents issued by the shipping lines were noted by auditor.

The transporter has committed to provide shipping records indicating the amount of cyanide and Safety Data Sheet (SDS) with the cyanide shipment. Bill Ladings will have the quantity of cyanide consigned to a particular mine on them. Records of Bill Ladings for other items for the mines were sighted. The transporter has not started transportation of cyanide yet. However, the transporter has Sodium cyanide SDS printed from the internet. This was sighted by the auditor. A Safety Data Sheets from the cyanide producers will be provided to the transporter when transporter starts operations.

OFSL will not sub-contractor any of activities specified in Transport Practice 1.6

2.0: INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent releases and exposures.

Transport Practice 2.1: Store cyanide in a manner that minimizes the potential for accidental releases.

The operation is:

✓ in full compliance with Transport Practice 2.1

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

The transporter will not have any transhipment depots or interim storage sites. Offshore Freight Services Limited will not have a trans-shipment depot or interim storage for cyanide. This Transport Principle is not applicable to this operation.

Transport Principle 3 – Emergency response

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

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

The operation is:

✓ in full compliance with Transport Practice 3.1

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

In preparation towards the commencement of cyanide transportation, OFSL has developed an Emergency Response Plan for the transportation of sodium cyanide and for management of cyanide incidents when it occurs. The ERP details the physical and Chemical properties of cyanide, Spill contingency plans, neutralization, roles and responsibilities of internal and external responders, anticipated incidents, First Aid and Medical treatment. The transporter also has a Remediation and decontamination procedure which is a separate document. The contents of the emergency response plan were critically scrutinized by auditor and found to contain the above relevant information.

The transporter has conducted Route Risk Assessment from the port to designated mine sites and has taken into consideration the general road conditions. The ERP addresses road transportation of sodium cyanide from the port of Tema to the proposed mining sites namely, Cardinal Namdini mine, Goldfields Tarkwa and Perseus Mining. The ERP is appropriate for the transportation of cyanide on the routes to the mines.

Clause 2.3.4 of the ERP gives a vivid description of the physical and chemical properties of sodium cyanide. It describes the nature of cyanide and its packaging and other chemical properties the incompatibility of cyanide to acids and the reactions thereof when they are put together and when exposed to moisture. The plan discusses the placards used in identification of sodium cyanide namely UN No. 1689, Toxic Six and Marine pollutant labels used which conforms to the International Dangerous Goods Code. The plan further addresses the process of handling accidental release of cyanide, remediation, use of neutralizing chemicals such as Ferrous sulphate.

The method of transport will be by road using vehicles of the required configurations and capacities. The emergency response procedures are based on the road transportation of solid cyanide in plywood boxes packed in 20ft shipping containers.

The ERP considers all aspects of transport infrastructure such as bridges and flyovers, sharp curves, slopes and general condition of the roads. Route Survey and RRAs that have been done considered the road infrastructure.

The ERP took into consideration the design of the trucks for road transportation. The plan mentions that delivery of cyanide to mining companies will be done the using 6x4 and 6x2 trucks all coupled with 4 axle flatbed trailers.

The ERP includes descriptions of response actions for anticipated emergency situations. Response actions of different incidents scenarios have been described comprehensively. The following anticipated emergency situations have been described.

- Cyanide Container roll over without any spill
- Container roll over with spill on dry ground
- Container roll over into a water body

The response actions of the above anticipated emergencies were scrutinized by auditor and found to be comprehensive.

The plan is committed to identifying the roles of the Ghana National Fire Service, Ghana Environmental Protection Authority, Ghana Police Service, hospitals and National Disaster Management Organization (NADMO). The roles of all the stakeholders are specified in pages 12 to 15 of the ERP. The role of the Escort leader will be the overall coordination of the response actions and will take the initial action with the escort team to cordon of the incident site to prevent access to people. The Escort leader and escort team will sweep the cyanide briquettes into a sealable container and do neutralization using Ferrous sulphate. The contaminated soil will be sent to the mine for proper disposal. The Escort leader will administer 100% oxygen to the victim to stabilize his condition. Upon arrival of the Ambulance Service, they will continue with the administration of oxygen to the victim and transport the cyanide poison person to the hospital. The Hospital will provide treatment for a cyanide poisoned person.

The Ghana Fire Service will be responsible for handling fires with the appropriate fire suppressant and also support the escort team in doing recovery of cyanide briquettes. The role of the police will be to do traffic control and prevention of the exclusion zone (incident site). The EPA will lead environmental response and assessment efforts and also conduct field testing to determine cyanide concentration in the soil and water (in case of spill). NADMO will serve as the central coordinating body of all the external responders during major incidents involving cyanide.

The responsibility of the mine will be to receive and offload damaged IBCs. The mine will be fully involved in the recovery in case the incident occurs close to the mine site. The cyanide supplier will offer technical advice. The auditor scrutinized the roles of the external responders and were found to be acceptable.

Transport Practice 3.2: Designate appropriate response personnel and commit necessary resources for emergency response.

The operation is:

✓ in full compliance with Transport Practice 3.2

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

The transporter has a Training Matrix which shows that annual refresher ER training for its employees will be conducted for the drivers and escort team. Emergency response training will be held annually.

The transporter has conducted a cyanide emergency response training for its employees in preparation towards the commencement of cyanide transportation. Records of Training Attendance Register were sighted by auditor. Competencies of the drivers and escort team are done through assessments. Selected drivers were interviewed to find out about their knowledge about response actions in case of a cyanide incident. Auditor was satisfied with responses they gave.

Descriptions of the specific emergency response duties and responsibilities have been clearly documented in Clause 4 of the ERP. The specific emergency response duties and responsibilities of the Escort leader, escort team, drivers, National Disaster Management Organization, police, hospitals, Ghana EPA and Ambulance are all clearly outlined.

The transporter has a list of emergency equipment (# OFSL-CDS-EC25/05/03/10). The company have procured the following equipment.

- Full face respirator with canister (ABEK)
- Spare Filters
- HCN Gas Detector
- Disposal Tyvek Overalls
- First Aid kits
- Oxygen resuscitator
- Ferrous sulphate
- Reflective cones
- Reflective tape
- Walkie Talkies
- Knapsack sprayer
- HCN Detector
- PVC gauntlet gloves/overalls
- Rubber boots
- Tarpaulin
- Cones
- Shovels
- Brooms
- Torch
- Plastic bucket

The equipment(s) are stored under lock and key in the Safety Officer's office and he is responsible for keeping the escort equipment. There is a procedure in clause 3.4 of the ERP which states that the oxygen resuscitator will be inspected by the Safety Officer to ensure it is always full. The HCN detector has been calibrated by the manufacturer. No cyanide antidotes will be kept by the transporter. The condition of a cyanide poisoned victim will be stabilized by administering him with 100% oxygen and

handed over to the mine clinic (in case the incident happens close to a mine) or transported to the nearest hospital whilst on oxygen for treatment.

The transporter has available the necessary emergency equipment and Personal Protective Equipment which are part of the escort equipment. The Personal Protective Equipment are Full-Face respirator with A2B2E2P3 canisters, Tyvek disposable overalls, rubber boots and PVC gloves. The contents of the Emergency response training agenda include the correct use of Personal Protective Equipment.

The company has developed a procedure to inspect emergency response equipment and assure its availability when required. As per the ERP, prior to delivery, the emergency equipment's will be inspected by the Escort leader and an Emergency equipment checklist will be completed. Damaged and expired equipment will be replaced with new ones. The ER equipment is kept under lock and key in the Safety Officer's office.

OFSL will not sub-contract any of the activities in clause 3.2.

Transport Practice 3.3: Develop procedures for internal and external emergency notification and reporting.

The operation is:

✓ in full compliance with Transport Practice 3.3

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

Clause 6.1(Incident Reporting) of the ERP details a process of notifying appropriate entities. The Escort leader will notify the cyanide producer, Ghana EPA, medical facility, Ambulance, Fire Service, Police and NADMO. Emergency Response contact list has the current contact information of the aforementioned entities. Community notification will be done by the EPA in case of an incident. The communities will not have any direct role in the handling of an incident and will be prevented from an incident site.

The ERP mentions that the emergency contact numbers of the internal and external responders will be tested every six (6) months and as and when necessary by the Safety Officer to ensure that the contact information are current. Contact details found to have changed will be amended immediately. Also, as per point # 7 of the ERP, during annual Route Surveys the emergency responders will be contacted to find out whether the contact numbers and names of the personnel have changed or not. All external

emergency notification numbers that were verified by auditor were found to be complete and up to date.

Selected phone numbers aforementioned entities were called by the auditor on phone to ascertain whether the phone lines are active. The contact phone numbers were found to be active.

Clause 7.3.1(Immediate Notification to ICMI) of the ERP states that any significant incident as per ICMI definition and acronyms will be reported to ICMI within 24hrs. The notification shall include a concise summary of the incident location, date, time, persons involved or affected and the immediate actions taken to mitigate the event. The Safety Officer is responsible for reporting such significant incident to ICMI.

OFSL is yet to start cyanide transportation and therefore has not recorded any cyanide incident.

Transport Practice 3.4: Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.

The operation is:

✓ in full compliance with Transport Practice 3.4

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

The transporter has developed a procedure for remediation, such as recovery or neutralization of solutions or solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris.

Clause 4.2.4(Neutralization of affected soil) gives a detail description of how neutralisation is carried out using Ferrous sulphate. In containing a cyanide spill, the escort team will ensure the spill is prevented from entering water ways. The briquettes of cyanide will be shovelled into a sealable container. The residue will be neutralized with Ferrous sulphate monohydrate to ensure full chemical interaction with any cyanide on the ground. Any residual ferrous compounds recovered from the area or neutralized soil will be carefully collected into a sealable container and will be delivered to the mine for disposal. No neutralizing of the cyanide in surface water will be done. In case of a spill into a water body the procedure mentions that the Ghana EPA will be notified and in conjunction with the company inform the villages and town downstream to avoid using the water and alternative water supply given to them. Samples of the river will be taken and tested regularly by the EPA till the water

body is declared safe for use by the community. The details of the procedure were scrutinized and noted by auditor.

The ERP states clearly that under no circumstances will neutralizing chemicals such as Hydrogen peroxide, Sodium hypochlorite and Ferrous sulphate will be introduced into surface water in an attempt to treat cyanide that has been released into it. This statement was noted by auditor.

Transport Practice 3.5: Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is:

✓ in full compliance with Transport Practice 3.5

o in substantial compliance

o not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

OFSL has made provision for periodic review of the ERP. Clause 7.3.4 of ERP states that the plan will be reviewed and evaluated annually or after an incident and investigation has been carried out. The procedure reiterate that the revision and update will be based on findings and lessons from incidents that has occurred as well as mock drills conducted.

The transporter's Training Matrix has made provision for annual Mock drills. Mock drill reports will be written by the Safety Officer with the corrective actions and recommendations after each drill has been conducted. The operation has conducted a mock drill in preparation towards the commencement of cyanide transportation. Record of attendance register was sighted by the auditor. The transporter simulated a cyanide spill incident with a cyanide poisoned victim. The mock drill report sighted, narrates how the cyanide poisoned person was handled and his condition stabilized with oxygen.

Clause 9 (Evaluation) page 9 of the ERP makes provision for periodically reviewing and evaluating the plan's performance after an incident. Debriefing will be held after emergencies and mock drills to evaluate which parts of the plans should be improved. The incident investigation process also has similar requirements to evaluate the plan's performance following an actual incident. There has not been a review of the plan as yet as the transporter has not commenced cyanide transportation and no cyanide transportation emergency has been recorded.

END OF REPORT