

INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Transportation Summary Certification Audit Report

TROPIC AGRO CHEM LOGISTICS

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FROM 17 TO 24 - November 2022

**Submitted to:
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**SUMMARY AUDIT REPORT
TAC-L 17 TO 24 November 2022**

Name of Operation:	TROPIC AGRO CHEM LOGISTICS
Name of Operation Owner:	TROPIC AGRO CHEM LOGISTICS
Name of Operation Operator:	TROPIC AGRO CHEM LOGISTICS
Name of Responsible Manager:	Aminatou KINDO Cyanide co-ordinator
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Location detail and description of operation:

TAC-L (TROPIC AGRO CHEM LOGISTICS Limited) is a Logistics, freight forwarding and transport Company Operating in Burkina .

The company was incorporated in 2020 and since then has served multinational companies with operations in Burkina .

TAC-L has the ISO 9001 certification and is authorized to transport hazardous materials, or any other cargo to mining include ammonium Nitrate .

The company is contracted as a cyanide transporter for Samsung to transport solid cyanide (briquettes) by road from Tema port to Orezone mine.

TAC-L Provides Customs Clearance and domestic trucking international trucking and freight forwarding services to their clients.

TAC-L has gradually expanded list of services over the years and developed an extensive network of contacts as they are known as ammonium nitrate transporter.

TAC-L are part of the group (group tropic agro) which one of the main importers of Ammonium nitrate in Burkina.

TAC-L operation Cover all West Africa (Burkina-Faso, Mali, Niger, Senegal, Ivory Cost, Ghana, Togo, Guinée...), TROPIC AGRO CHEM LOGISTICS is active throughout West Africa.

TROPIC AGRO CHEM LOGISTICS ranks among the largest road haulers in Burkina in the bulk and volume transport markets.

With 265 employees, the company operates a modern fleet of 100 mainly new vehicles, in Burkina with yard 20,000 m2 of parking space and administration office.

The company strength lies in its combination of international standards and skills in both transportation and logistics, a highly developed West African network, advanced transport management systems and a sharp focus on quality and service.

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Cyanide is received at the port of Tema port by sea in containers, each of which hold 20 one-ton boxes of solid briquette cyanide.

The containers are offloaded at the ports by a stevedoring company.

A due diligence audit was done by Samsung as part of the ICMI audited supply chain of the cyanide producers and consignors bringing the cyanide into Burkina.

For the purposes of Cyanide Code transportation compliance, TAC-L Burkina's Code responsibilities commence on collection of the containers from the port.

The audit exclusively covers road transport from the port of Tema port to Orezone site.

Containers are delivered from the Quays to the port Container Depot where they are loaded directly onto trucks.

TAC-L Cyanide Code responsibilities commence once they take the containers from the port area.

TROPIC AGRO CHEM LOGISTICS clears the consignment and TAC-L vehicles collect the containers with the documentation and manage them under a Transport procedure (jointly agreed between the client, and TAC-L Burkina).

The containers of cyanide, are then transported in escort by TAC-L convoy and Ghana police in Ghana and Burkina gendarmerie officials in Burkina to client sites, Burkina government demanded that the applicant to transport the HAZMAT cargo must be done by the consignee.

There is neither storage nor interim storage during the delivery journey.

Each truck has a driver, who is accompanied by a safety officer or assistant.

The safety officer manages the communications between the trucks, the escort vehicles and the convoy manager, and monitors the driver.

The convoy includes a convoy manager, safety officers, a cyanide first aider/ paramedic, a mechanic, cyanide emergency response equipment for spills and releases and cynokit or medical equipment to treat cyanide exposures (splashes, skin exposures, inhalations and ingestion).

The convoys include a customs escort through Burkina.

I. Note

I.2. TAC-L does not use any subcontractors. TAC-L undertakes the full road transport from the port of Tema port to client site.

I.3. TAC-L does not operate a temporary storage area.

Upon arrival of cyanide shipment cyanide, loaded onto trailers and conveyed without delay to client site. If the carrier is not ready and present to collect the dangerous goods, then the cargo is segregated at Tema port await the carrier.

I.4. With regard to the TAC-L fleet, no cyanide incident or accident has been recorded, to date.

II. Auditees and interviewees:-

- 1-Al Hassane Sienou -Ceo
- 2-Karim Senou - general manager
- 3-Vincent De Paul Kam -HSSE Manager
- 4-Clementine Sylla - Workshop Manger
- 5-Aly Zerbo - Chief Mechanic and Esort officer
- 6-Idrissa Mariko - convoy Mechanic
- 7-Aminatou Kindo- Convoy Manager
- 8-Guimbi Kone -Human resource Manager
- 9-Roland Traoré - Driver
- 10-Christian Somda -Administration Manager



11-Ousmane Traoré -escort car driver
12-Lamine Traoré- chief driver

Acronyms:

RA= Risk Assessment

ER= Emergency Response

HSSE= Health Safety security & Environment

UMOEA= Union Economique et Monétaire Ouest Africaine

HF= High Frequency

BL= Bill of Landing



Auditor's Finding

This operation is

X in full compliance

in substantial compliance *(see below)

not in compliance

with the International Cyanide Management Code.

Audit Company: Crown Transport & Logistics Audit Team Leader: Ghassan Hussein

E-mail: ghass@ctlwa.com

Names and Signature of Transportation Auditor:



Name: Ghassan Hussein Signature

Date: 20-1-2023

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 Code Certification 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 of audit: 17-11-2022



Signed

Lead Auditor: Ghassan Hussein

Date 20-1-2023



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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 **X in full compliance** with Transport Practice 1.1
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L developed road risk assessment and Journey plan
the journey plan has date of departure, where it is going, final destination, trip distance, loading and discharge order, truck number and BL number

TMP and journey plan provides details about black point areas which are identified and managed, routes are selected.

Also the procedures identify rest points and are audited as fit for purpose.

Due diligence on the port operation was done by Samsung.

Moreover, evaluation of roads, surveys, and route risk assessment and also an update on the road changing conditions of the routes used for cyanide deliveries.

Feedback on the route is received from drivers via journey plan.

The road risk assessment focuses on water bodies ,pitch , inclination , hills , black points and the control measures required to address the potential for accidents and releases.

Population concentrations and built-up regions are mapped, in addition to concentrations of children, pedestrian activity, cyclists and animals.

The RRA explains the steps that must be taken to evaluate the transport routes and determine the individual responsible for managing each step.

Moreover it reviews the road situation in addition to critical places.

These procedures likewise incorporate the steps taken in to answer for any changes in the routes, in the way that potential hazards that increase the risk of the route and in what way or manner to handle them.

The ERP and Transport Management Plan (TMP) require that routes are reassessed each month or more frequently if the season changes / requires.

During the convoy the Escort Commander provides real time risk management on the route condition.

Feedback on the route is also documented in the End of journey plan produced by the Escort Commander following each voyage and clearly stated and elaborated in the journey plan.

This is used as an awareness tool for convoy personnel and discussed during the pre-trip briefing of the next convoy.

The feedback / journey plan document take into consideration everything from road conditions, to population, to time of transit, where delay came from and possible solution to expedite the delivery.

The data from this sheet is transferred into the road risk assessment and analysis is done to review and

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revise the level of risk on the road and if the risk or the number of hazards is increasing or reducing. Convoy managers and escort teams take this into account in their journey planning. Route risk assessments are currently reviewed yearly and re done every 5 years. All feedback is documented by Convoy Managers in the journey plan and transferred into the risk assessment during the yearly review. Full routes are re-evaluated every 5 years although no alternative route is available Road Survey do risk assessment and hazard identification and mitigation measures, the identified hazard are, linked to hazard map and updating the risk assessment on population density, bridges, water bodies, black points, and black outs. The Road Survey procedure identifies steps to be taken in the assessment of transport routes and identifies personnel responsible for undertaking each step.

The RRA clarifies the steps that must be taken to assess the transport routes and identify the person responsible for undertaking each step. Which includes detailed route and rest stops and further identifies road hazards with certain misconceptions like Fogs which isn't the major issues rather Harmatan where the dust and wind form a bad visibility during transport. other road hazards such as : slippery roads, bridges, population densities, customs barriers, road construction, cyclists, traffic congestion, standard caution, heavy rain, cattle crossing, children, bridges etc. the OBC / GPS is downloaded after every trip and analyzed, the road risk includes a sample of the road hazard mapping from Tema to Ouaga and Ouaga to OREZONE. , Road Risk Assessment Tema Ouaga is 1165 KM route considers the risks and the assessment of the risks as well. Transport management plan ensures that the route has been analyzed in order to minimize the potential and impacts for accidents and releases. Also ensures road risk assessment is used, with infrastructure and condition analyzed and controlled. Each delivery is undertaken via convoy as it is a legal compliance. TAC-L have also developed a list of authorized rest & stop points that can be used along transport routes. The road risk assessment highlights areas of significant population density and the control measures needed to address the potential for accidents and releases or the potential impacts of accidents and release measures. The survey teams meet to discuss issues or concerns with the client and drivers. On completion, copies of the RRA are sent to Samsung and Orezone. Prior to any voyage departure, the ERP contains a list of contacts including the client, confirming that positive communication must be checked with any additional issues with the proposed route can be addressed at this stage.

The community is consulted and involved though limiting their role to crowd control. TAC-L sent letter to all communities that they pass through their territories seeking cooperation and explaining the dangers of cyanide emphasizing the core responsibility of the community is not to get close or involved during an incident and not to use any ground or surface water until it is declared safe to do so by the authority.

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Furthermore, TAC-L has a permit issued by the authority applied by the end user to have gendarmerie escort.

TAC-L uses convoys as a means of supervising the risks of road transportation and responding to crises. Each convoy subsists of

2- 4x4 escort cars one leading and one at the end making a closed convoy.

4- gendarmerie officers that are used for consignment protection one armed in the leading escort car and one at the end,

likewise to direct traffic and control crowds in the event of an crisis

The Escort Commander leads the convoy and decides the speed hinged on the condition of the roads.

During transportation, drivers assert a suitable divide between the vehicles ahead at the same time maintaining visual contact.

Mobile phones, radios, horns and flashing of headlights are used to communicate between vehicles.

In addition to convoys and armed gendarmerie escorts, additional protection measures are carried out including GPS observing of the progress of the convoy along the route.

All containers are locked and secured, and the trucks & containers are examined just before leaving and regularly throughout the convoy.

Furthermore, the Emergency Response Team on the convoy has spill kits, first aid, a mechanic and safety officers. (Complete emergency response team).

TAC-L has advised external responders and medical facilities as necessary of their roles and/or mutual aid during an emergency response.

TAC-L ER contact list has been updated periodically; external responders are advised of their roles during an emergency response through letters and training coordinated by TAC-L.

Police or gendarmerie undergoes awareness before participating in convoys.

In the event of an emergency, they primarily provide protection functions which are not outside the scope of their normal roles.

External agencies including police, fireman, hospital etc. are also involved with incident scenario training simulations at least once per year.

The road risk assessment focuses on water bodies ,pitch , inclination , hills , black points and the control measures required to address the potential for accidents and releases.

Population concentrations and built-up regions are mapped, in addition to concentrations of children, pedestrian activity, cyclists and animals.

The RRA explains the steps that must be taken to evaluate the transport routes and determine the individual responsible for undertaking each step.

Moreover it reviews the road situation in addition to critical places.

These procedures likewise incorporate the steps taken in to answer for any changes in the routes, in the way that potential hazards that increase the risk of the route and in what way or manner to handle them.

The RRA clarifies the steps that must be taken to assess the transport routes and identify the person responsible for undertaking each step.

Fogs is not the major issues rather Harmatan where the dust and wind form a bad visibility during transport.



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 **X in full compliance** with Transport Practice 1.2
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L training program is based on the competency frame work every staff is trained based on the job/task he/she is going to perform

TAC-L operate only with qualified and trained personnel

All truck drivers have a permit D valid for 5 years that allows the driver to drive trucks above the weight of 19 tons and hold at least a Middle School Leaving Certificate and they should be able to read and write.

Burkina driving license categories are

A= motorbike

B= vehicle

C= 10 ton truck

D= Truck &Trailer

E= Bus

F= Disabled / handicap

Minimum training requirements have been established for cyanide drivers:

Training done are:

- 1) defensive driving training for drivers
- 2) HAZMAT and Cyanide transport include emergency response
- 3) road risk assessment feedback
- 4) general HSE induction
- 5) fire and first aid.

Transport Management Plan indicates that TAC-L uses only trained, qualified and licensed operators.

TAC-L has training program based on the competency frame work for each personnel relevant to the task or job he has to perform forming a training Matrix

The Training Matrix and the training plan show the attendees matrix of the annual training done.

Drivers and Escort team have been trained to perform their jobs in a manner that minimizes the potential for cyanide releases and exposures.

This process is complemented with structured training.

Emergency simulations drills are carried out at least 1 time per year.

Where specific aspects of the emergency plan are evaluated.

At least 1 cyanide drill should be done per year involving external responders.

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Records of this training are kept for future reference.

The Training Matrix and records were reviewed to confirm training had scheduled and conducted.

The Health, Safety, Environment and Quality (HESQ) Manager explained that a structured process has been established for the training of new drivers.

The convoy carries all the necessary cyanide emergency equipment (cyanide releases and medical) with them and they are under armed police escort.

TAC-L does not contract nor subcontract any of its activities unless covered by due diligence as port operation.

TAC-L does not manage the loading, unloading or DE stuffing of containers.

TAC-L retain the full responsibility of the operation and the only function that is subcontracted is the port or stevedoring and this is covered by the due diligence.



Transport Practice 1.3: Ensure that transport equipment is suitable for the cyanide shipment.

The operation is **X in full compliance** with Transport Practice 1.3
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

the following legal compliance controls loading within west Africa
Ghana high way authority Act 540 -1997 & LI2180
ministry of transport Burkina #11/2010/STTC/AL
UMOA agreement -14/2005/CM/UMOA
there are axle load bridges that prevent any overloaded truck from moving
the regulation state: if the truck is overloaded the load must be transferred to another equipment
that is fit for the load
that does not exceed 10 tons per axle
the axle load bridges are located in strategic places on the route to Burkina
at the following critical places
1-Tema port Ghana
2-Tema exit Ghana
3-kumasi exit Ghana
4-Tamale Exit Ghana
5-Bolgatanga exit Ghana
6-Paga Ghana border exit
7-Darkola exit Burkina
8-PO exit Burkina
9-Ouaga interne Entrance (Burkina in land port

The axel load weight bridges are bridges that confirm the vehicle weight across more axles and having more distance between axles and axle groups, spreads weight across more of a bridge.

The bridges are designed to accommodate commercial trucks that are heavy or much lighter giving the gross weight of the vehicle and load,

Bridges are routinely inspected and calibrated to ensure that conforms with the weight set out by the institution .

Part of the assessment is determining their safe load carrying capacity.

Violating bridge weight restrictions and regulation can result in expensive defilement.

Tared road life is shortened by overweight vehicles.

The tared road if subjected to high axle loads will develop cracks and deformation far sooner than expected.

The road may require more frequent resurfacing, crack seal and other maintenance.

Axle weighing pads are used to even out the axle weight of trucks and trailers with no limit to the number of axels the length and the width of the truck or equipment .

These pads are fitted on the ground and the axels tires roll on them registering the weight per axel.

Calibration is done by using a load cell that measures its force when loaded with a standard weight.

The result is then calculated .

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TAC-L only uses equipment designed and maintained to operate within the loads It will be handling when transporting cyanide .

Referencing procedures Convoy management and cyanide handling procedures, the TMP (Transport Management Plan) states that the axle loads for trucks and trailers to be used that conform 10 tons the ECOWAS & UMOA treaty signed 1992 and 2006 respectively and the Emergency Response Plan includes the calculation for determining whether the truck and trailer is appropriate for the load:

Prior to every convoy, equipment is checked using the Cyanide Equipment Checklist product based checklist, these include inspections of the king pins and twist locks.

Transport management plan indicates TAC-L uses only equipment designed to operate within the loads.

Drivers are paired with set trailer (20 foot) and truck.

All the equipment used for cyanide transport has a preventative maintenance plan that is recorded.

The work conducted on the vehicles is based on the preventative maintenance schedule (hours and kilometers) and a discussion between the mechanic and the vehicle driver (reactive maintenance). Work orders are raised for all work to be conducted.

The weight of cyanide briquettes in a 20 foot container is 20 tons. Only one container is carried on each trailer.

The weight of the container is 2.3 tons and the weight of the trailer is 10.5 tons. The weight of the tractor is 9.5 tons.

Thus the weight of the truck, trailer and load is around 43 tons, including fuel.

The truck & trailer is a 6 or 7 axle vehicle (3 axles on the tractor and 3 or 4 on the trailer), thus the weight on each axle is based on 43 ton over 6 axel giving 7 tons per axle.

The BURKINA and ECOWAS maximum axle weight is 10 tons, meaning that the loading of axles is well within the maximum legal limits.

Specific truck and trailer maintenance records were sampled and checked.

Trucks still under agent warranty, they do major maintenance and repairs

Transport Management plan indicates cyanide container is loaded on trailers.

Cyanide is not opened, delivered in sealed containers as supplied by the manufacturer with same seals the containers are not opened at port and other form of delivery is done. No offloading or loading is done.

The container weights are detailed on the Bill of Lading prior to container collection from the Port of TEMA.

The containers are sea worthy with BIVAC inspection approval all containers comply with the IMDG regulations.

No sub-contracting is undertaken due to the nature of the cargo.

Transport Practice 1.4: Develop and implement a safety program for transport of cyanide.

The operation is **X in full compliance** with Transport Practice 1.4
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer's packaging.

The TMP outlines that containers must be inspected prior to loading from port to ensure that all seals are intact and warning labels and registration numbers are in place that also ensure the cyanide integrity is never compromised.

TMP outlines the containers must be inspected before loading in order to ensure that proper labels and seals are in place.

Containers are not opened for loading or offloading so it stays intact till it reaches the site.

The Bill of Lading is stamped by the Port Authority indicating the containers have been delivered undamaged with the same seals installed by the producers.

The container is also checked by the client upon arrival, based on the delivery order signed.

The transport management plan, convoy management and the cyanide handling procedures explains how the transport is done with packaging consisting of plastic lined wooden boxes packed into 20 foot containers and sealed.

The integrity of the boxes and containers can only be compromised if they are damaged during handling or if moisture/water/liquids enter the containers or the boxes in case of an accident on road.

The container is sealed by the producer and only opened at the client.

due to the nature of the cargo and the danger associated with it, the cargo is escorted by police in Ghana and gendarmerie in Burkina to ensure the cargo integrity and packing is never changed and the containers is never opened till destination.

the containers and vehicles undergo constant checkups to ensure there are no damages to cargo or the vehicle as well as preventative procedures to make sure TAC-L don't risk damaging cargo or company vehicles

Furthermore, a Container Interchange Report is completed and jointly signed by the shippers representatives and the cyanide transporter's representatives to agree on any damage that may be sighted on the container.

Also there is a checklist for the container integrity procedure, signed by the driver and the convoy manager and the mine upon delivery.

The Vehicle Trip Checklist is completed and signed at the mine confirming the condition, on delivery of the container and a section reports on container seals, labeling and general container condition.

This checklist is counter signed by the mine representative confirming no irregularities on container, seal and vehicle checklist inspections are carried out when the convoy stops during the

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day and overnight done by the safety officer.

Placards are used to identify cyanide shipment, as required by international standards.

The ERP and TMP outlines the requirement for placarding to be placed on the 4 sides of the sea containers used in the transport of cyanide.

As a control measure, the cyanide is trucked in convoy under the escort of trained persons who have received training in cyanide emergency response and dangerous goods training.

Cyanide to have the following markings:

- Number UNO: 1689
- Principal class: 6 Poison
- Exact designation of the dispatched product: sodium cyanide , Solid.

The shipping container containing the IBC's is marked with Hazchem labels on all sides all convoy have been appropriately planned with set breaks and designated overnight stops. Convoys can only travel between 6:00 and 18:00 .

TAC-L administration policy define working hours for all staff based on their jobs, employment contract for staff has specifically defined the working hours for drivers and through convoy and cyanide management procedure define the working hours , driving hours , rest time. rest are maximum 2.5 hours' drive 30 minutes rest)

through Journey ,OBC and GPS download TAC-L monitor every driver working and driving hours through the GPS and take action if any violation warning letters and other consequence management are implemented for violators

the fatigue management procedure explicitly state and define the availability , working , driving hours rest time and rest days also the consequence of 3 violation lead to a termination.

The TMP and drivers rules, that it also regulates the drivers returning with the empty containers the fatigue regulation still applies.

the above policies and procedures summarized to the following

maximum hours of availability during any 24 hour period (12 hours);

maximum driving hours on duty in any 24 hour period (8 hours);

availability and driving hours must be between from 6 am to 6 pm

maximum period of continuous driving (2.5 hours) with 30 minutes break;

minimum daily rest time 180 minutes

availability is 12hrs /day

maximum weekly driving hours (48),

working week to be a maximum of 6 consecutive days.

all the above are not implemented during Ramadan or the fasting month for Muslims

during Ramadan the maximum working hours is 8 hours not 12

the driving hours is 6 not 8 hours

the maximum working hours per week is 36 not 48 hours

maximum continuous driving period is 2 hours not 2.5 hours

TAC-L cyanide movement procedure addresses the following

1-civil unrest in Ghana and Burkina

2-armed robbery

3-bad weather

the emergency response plan addresses the scenario of bad weather, civil unrest or armed presence on route or vandals

it states for civil unrest in Ghana they park at the nearest police station and

in Burkina they are sent to the regional gendarmerie headquarters



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also emphasizes that if loading is not done and there is any risk the trip or convoy is suspended till further notice

TAC-L HSE policy commits to train staff on HSE matters, misuse of drugs and alcohol and preventative actions relating to drug and alcohol.

The policy also notes that TAC-L will carry out testing random and for cause on the use of drugs and alcohol

in the event of a positive test , will result in actions including further preventative training.

That the policy ensures that drugs and alcohol are controlled.

There is a briefing before every trip on the use of alcohol and drugs that is prohibited.

Policy prohibits drugs and alcohol on the company premises or whilst driving and the consequences of positive test results.

The driver also signs acceptance of the positive results.

The policy and company recognizes alcohol and drug dependence as a treatable condition and will provide appropriate support and assistance within the bounds of the policy.

Records are maintained for relevant parts of this element and for each finding.

If the reading is positive, it is sent to the hospital to confirm the reading, if he is long time alcoholic or one off.

TAC-L has ISO 9001 Certificate, keeping records is mandatory for all its activities.



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

The operation is **X in full compliance** with Transport Practice 1.5
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L are not responsible nor contracted to manage cyanide consignments by sea the scope of this audit is only land transport from port to destination..

TAC-L does not manage the loading, unloading or DE stuffing of containers or stevedoring. however this requirement is covered by the due diligence done by ICMC AUDITORS Sang Ho Han on behalf of Samsung for consignee certification and it is visible on the container on all the 4 sides the following

1- 1689 placard

2-marine pollutant placard

3-class 6 toxic placard

TAC-L ensure that upon collection of container from port has the needed placarding for land transport

Placards are used to identify cyanide shipment, as required by international standards IMDG and IMO DG code requirement.

the responsibility of placarding falls on the supplier or the manufacturer TAC-L are not responsible for placarding since they do not open or swap containers

however TAC-L has a stock of placard they keep in case one of the placard is damage during sea transport supplied by Samsung.

The ERP and TMP outlines the requirement for IBC containers used in the transport of cyanide to be placard on the four sides.

As a control measure, the cyanide is trucked in convoy under the escort of persons who have received training in cyanide emergency response and dangerous goods training.

Cyanide to have the following markings:

- Number UNO: 1689
- Principal class: 6 Poison
- Group packing: 1
- Exact designation of the dispatched product: cyanide of sodium, Solid

The shipping container containing the IBC's is marked with Hazchem labels on all Transport management plan indicates that placards are used to identify cyanide shipments. the container check list identifies the placarding to be on all sides of the container during transport full to mine site and to be removed on the journey back after discharge.

The procedure refers specifically to placarding as per the IMDG Code requirements and ADR emergency response.

In addition, the last truck in the convoy at the back has a large sign which states "Dangerous Convoy "

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

The operation is **X in full compliance** with Transport Practice 1.6
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All TAC-L vehicles are equipped with GPS tracking and monitored by TAC-L, The drivers do not use the communications equipment. The accompanying safety officer or assistant in each truck communicates with the convoy leader and support vehicles. and appropriate emergency responders and emergency services on the convoy route and the client, based on the protocol of communication in their communication procedure , TMP and ER plan and the customs document declare precisely the delivery documentation the container numbers, weights and seal numbers. The convoy manager is obliged to call TAC-L every 60 minutes and to call the client every 2 hours or at every rest point. Where no reception exists, the convoy commander calls before and after the reception blackout. However the mines that TAC-L currently serves have no blackout area. VHF radio, headlights and horns are used to communicate between vehicles in the same convoy.

Check lists ensure that the GPS tracking is working properly. Transport management plan indicates that communication equipment shall be reviewed and confirmed before convoy departure. Communication equipment (GPS, mobile phone, radio,) is periodically tested to ensure it functions properly and is part of the check list.

Communication blackout areas are identified during the route assessment process and procedures are implemented to manage them however, the mines that TAC-L currently serves have no blackout area. GPS tracking is implemented for all convoys. Convoys periodically call by phone every 60 minutes TAC-L head office.

The container weights are also detailed on the Bill of Lading. A scanner is used at the Port to verify that the correct container has been placed on the selected trailer. TAC-L uses convoys as a means of managing the risks of road transportation, responding to emergencies and to prevent product loss. The cyanide from the port of entry to destination is under the control and the responsibility of the authority due to the dangerous nature of the cargo.

The delivery documentation notes the container numbers, weights and seal numbers. The customs documents declare precisely the delivery documentation the container numbers, weights and seal numbers. Also the convoy manager carries along an MSDS for cyanide and a list of emergency contacts between the port and site.

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The declared weight of the container is appearing on the delivery note.
TAC-L manages the supply custody using the TMP.

The cyanide from the port of entry to destination is under the control and the responsibility of the authority due to the dangerous nature of the cargo.



2. 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 **X in full compliance** with Transport Practice 2.1
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

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

Following collection from the Port, the containers are sent to client site.

At no stage is cyanide removed from the trucks or containers prior to unloading at mine sites.

N/A There are no situations where interim storage occurs

since the cargo is under the authority custody and the authority doesn't allow the cargo to park or be sent anywhere apart from the approved route.

Following collection from the Port, containers are temporarily stored on trailer at the TAC-L depot overnight in preparation for departure to the customer sites the following morning.

At no stage is cyanide removed from the trucks or containers prior to unloading at customer clients.

N/A There are no situations where interim storage occurs

since the cargo is under the POLICE/GENDARMERIE custody and customs doesn't allow the exempt cargo to park or be sent anywhere apart from the approved route.

the port operation and that is covered by the due diligence done by ICMC AUDITORS Sang Ho Han on behalf of Samsung for consignee certification

TAC-L does not manage the loading, unloading or DE stuffing of containers.

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 **X in full compliance** with Transport Practice 3.1
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L has emergency response plan, also the emergency response is summarized for the drivers in their manual of operation (driver Hand book) with more emphasis on their roles and responsibility

the ER plan goes as follow

-introduction

state the version of the document and the custodian

-critical position and critical task

state the roles and responsibility of the internal and external personnel involved in the emergency

the ER plan shift empowerment between staff and during an incident or abnormal situation the empowerment shift between staff

incident controller-base controller- press focal point -recovery team - financial controller-

-Manual of authority for abnormal and emergency situation

this is the new empowerment given during the emergency

to avoid bureaucracy so decision can be made very fast and effectively

-material safety data sheet

• Toxicological dossier • Broad outlines • Priorities • Personal protection • Emergency equipment

-port emergency

detailed involvement if an accident involved at the port

addressing various scenarios and probability TAC-L saw this to be essential since it is not within their control

and is in a totally different country and if there is a damage on the container TAC-L will not pick the container

eg container falling on the truck

truck accident in the port

the container is damaged

the container has holes and there is emission of HCN

-road transport Abnormal operations & emergency

• Emergency contacts list internal and external from tier 1 to tier 3 • mobilization of assets • internal & External communications

• Transport routes • Escort • Principal prime mover • Trailers • Convoys • Formation

• Abnormal operations • Safety all along transport • Arrival at mine • Completion 01 unloading

-Road transport incident accident

• Emergency actions • Procedures • Goal • Priority 01 conduct • Initial response •

Communications

- Logistic support • Equipment and materials
- Emergency response
- Accident without sodium cyanide discharge
- Accident with sodium cyanide discharge
- Accident with sodium cyanide discharge in water
- Fire Emergency response equipment
- investigation
- Investigation • Environmental control • Cleaning and cleansing
- Appendices

Each convoy carry copies of the following

- suppliers MSDS for cyanide and a list of emergency contacts between the seaport and location.
- Road Risk Assessment
- Procedure De Declaration Des Incidents Et Des Accidents
- Plan D'intervention Immediate Procedure En Cas D'urgence
- Manual Of Authority For Abnormal And Emergency Situation though already is part of the ER plan.
- Plan De Gestion Des Transports

Procedure emphasizes on what to do during cyanide accident from first aid to neutralization to outside responders.

This plan gets revised annually or when the ER plan is triggered or in case of a drill response that needs to corrected.

The ERP contain the information and details on what to do during cyanide accident from first aid, neutralization and external responders.

No interim storage but the plan covers different scenarios and different routes specified by the Ministry in BURKINA.

TAC-L control convoy using the convoy formation and reduced speeds used along the transport route.

The ERP addresses the responsibility of the roles for convoy personnel.

As all cyanide deliveries are made in convoy, the accompanying Emergency Response Team will implement the Emergency Response Plan.

If more support is needed in which case they will report to head office or external responders.

Further, TAC-L has dedicated full time 2 ER team for emergency and abnormal situation

TAC-L only transport solid cyanide.

The ERP also details the steps to be taken to neutralize and clean up residual cyanide

The ERP do consider the method of transport the documents were developed as an outcome of the route assessment process and consequently consider aspects of the transport infrastructure and the method of transport .

The plan considers all aspects of road transport only since sea air and railway are not part of the scope.

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The four emergency situations described in the ERP are based on prime mover and trailer configurations with 20 foot containers.

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

Permit has been given from the authority to transport cyanide.

The client primarily provides logistical support in the event of an emergency (crane, security etc.) in case the incident is close to the mine.

The roles of the gendarmerie, Fire Brigade and Hospitals are in accordance with their duties. External responders were advised of their roles during an emergency response through letters and training

coordinated by TAC-L.

External agencies including gendarmerie, fireman, hospital etc. are also involved with incident scenario training simulations at least once per year.

Community is informed and trained and consulted with all details not to get involved.

Any outside additional assistance would be requested or coordinated through the Ministry of Security

The possibility of using outside medical responders has been considered and a communication through letters and brochures .

TAC-L does not subcontract any road transport activity at any point after receiving the cargo at Tema port



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

The operation is **X in full compliance** with Transport Practice 3.2
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L has training program based on the competency frame work for each personnel relevant to the task or job he has to perform forming a training Matrix .

A training simulation involving external responders is conducted at least once per year.

Transport management plan states the involvement and training of stake holders in case of emergency.

Competency matrix procedure indicates the training and competency needs of all jobs and includes emergency response.

Convoy team members are trained in emergency response.

There are descriptions of the roles and responsibilities in the ERP

A flow diagram is included in the ERP that outlines the flow of information in the event of a cyanide incident during transport.

The ERP also outlines key commitments of the cyanide manufacturer.

ERP describes the emergency response duties and the personnel involved.

TAC-L has a checklist for emergency equipment that is available during transport or along the transportation route .

The process also states the equipment needed and available per convoy.

The equipment is checked per trip and monthly, expiry dates are checked and test are done per inspection.

TAC-L has a checklist for necessary emergency response and health and safety equipment including PPE that is checked before each convoy.

The convoy escort vehicles carry all the necessary emergency response equipment that may be required for cyanide emergencies during the convoy routing.

TAC-L provides transport vehicle operators with initial and periodic refresher training in emergency response procedures.

TAC-L has developed a training matrix for all transport personnel.

This matrix identifies the training needs for escort personnel and convoy drivers.

Training is provided by TAC-L annually or more frequently if needed.

A training simulation involving external responders is conducted at least once per year.

Discussions with convoy personnel confirmed that they knew what their roles were in an incident.

Transport management plan indicates that the drivers must have received prior induction (refreshment) in order to know how to deal with emergencies.

All members of the convoy team (escort vehicle and drivers and safety officers) are trained in the Emergency Response Plan

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Pre-trip briefing includes refresher of emergency procedures.
The convoy cannot leave unless all equipment is available and in appropriate condition.
Convoy equipment is checked and tested before the convoy moves.
The HCN detector is also tested and is sent to the manufacturer when due for calibration every 12 months.
the cyanokit is also checked for expiry date and that it is being stored according to manufacturer recommendation. however it is administered by the medical facility and only, under emergency circumstances will be administered by the Paramedic who administer the oxiviva that he checks the oxygen level prior departure. Who administer the oxiviva that he checks the oxygen level prior departure.



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

The operation is **X in full compliance** with Transport Practice 3.3
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The ERP has the contacts lists that are relevant during an emergency with their appropriate work position.

The ERP and associated documents contain procedures and current contact information for notifying the shipper, client/ receiver/consignee, outside responder, providers, medical facilities and ICMI, generally stakeholders during an emergency.

The ERP includes a contact list of all the staff, companies that must be contacted before each voyage is undertaken.

This includes supplier, shipping line, Stevedores, clearing agent, government agencies, client and TAC-L representatives.

A flow diagram is included in the ERP that outlines the conveying of information in the event of a cyanide incident during transport.

In the event of an emergency incident, it is the lead safety officer who contacts TAC-L and TAC-L contacts the required people outlined in the flow diagram.

TAC-L ERP procedure section 3 demand TAC-L management inform ICMI of the following incidents

- a) Human exposure that demands an action by an emergency response team, in the way of decontamination or treatment. ;
- b) release that enters natural surface waters, ;
- c) A transport incident needing emergency response for cyanide release;
- d) Events of numerous wildlife fatalities where cyanide is known or thought to be the cause of death
- e) Theft of cyanide.

TAC-L has systems in place to ensure that internal and external emergency notification and reporting procedures are kept current.

The ERP requires a review of the Contacts List prior to the convoy departure.

Nevertheless the ER plan is reviewed every year which include the contact list

TAC-L also review it when the ER plan is activated, this is to ensure that the list is kept up to date.

The Transport Preparation procedure designates it the responsibility of the Health Safety Security and Environment Officer / Convoy Leader to ensure that contact numbers are checked and validated prior to departure.

Updated annually when all procedures are due for update or when there is a change in the contacts

By using the drill, it would assess the effectiveness of the ER plan

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

The operation is **X in full compliance** with Transport Practice 3.4
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The ERP and TMP contain procedures 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. In the event of a spill, all cleaning will be carried out by TAC-L personnel, who are first required to contain the spill or discharge as soon as possible to avoid greater contamination of the site. Residual cyanide will be recovered and neutralized according to the procedures for neutralization which were established by the manufacturer.

Recovery and treatment of Spills goes with the following steps:

Recovery of Solids;

Neutralization or removal of soils;

Treatment and or disposal of soils;

reclamation of Sodium Cyanide;

Transport of contaminated materials;

Neutralization; and

Water Resource Treatment.

TAC-L has emphasis in the ERP not to use chemicals in water bodies.

All debris and waste are sent to the mine for disposal since it contains cyanide.

Both the ERP and TMP have statements prohibiting the use of chemicals such as sodium hypochlorite, ferrous sulfate or hydrogen peroxide for the treatment of cyanide discharged to surface moving or underground water.

the ER plan roles and responsibility section state "if any spill occurs TAC-L and the authority will notify affected communities not to use or drink water until is safe to do so".

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

The operation is **X in full compliance** with Transport Practice 3.5
 in substantial compliance
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

TAC-L reviews all procedures include ER plan every year.

TAC-L management reviews were all recorded.

Incidents are reviewed especially emergency situation.

The internal audit evaluates the effectiveness of the system.

TAC-L has provisions for periodically reviewing and evaluating the adequacy of its plans.

TAC-L has systems in place to ensure that internal and external emergency notification and reporting procedures are kept current

The ERP requires a review of the Contacts List prior to the convoy departure.

This ensures that the list is kept up to date.

The ERP has had yearly revision since its development.

Yearly reviews of the road risk assessment are identified and review of the procedures is updated yearly.

Generally the ER plan is reviewed on the following basis

1. After an accident to add the learning points
2. After a obligation done by the mine
- 3-drill where there was alternative in the implementation
4. The annual review or procedural year by year review
5. in case there is a change in the law or the regulations

TAC-L conducts at least 1 mock drill per year, cyanide 's mock drill is a part of the cyanide awareness training.

Drills could be done with client or external responders where specific aspects of the emergency plan are evaluated.

A training simulation involving external responders is conducted at least once per year.

the drill done by TAC-L in order to have the escort team to react effectively and professionally in the case of a cyanide incident in workshop on road.

Evaluation of the Mock drill was done by Dept HSE manager

No cyanide incidents have been reported to date.

In addition the ERP contains the requirement that it is to be reviewed and implemented.



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