

INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Pre-Operational Transportation Summary Audit Report

**Mauritanie Logistique
(Maurilog)
Mauritania
3rd - 9th August 2015**

Submitted to:

International Cyanide Management Institute.

1400 I Street, NW-Suite 550,

Washington, DC 20005.

USA

Maurilog

Signature Lead Auditor

3rd August 2015

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Name of Operation: Mauritanie Logistique Maurilog

Name of Operation Owner: Mauritanie Logistique Maurilog

Name of Operation Operator: Mauritanie Logistique Maurilog

Name of Responsible Manager: Abou Bekrine Seddigh
Executive Manager (Quality & Safety)

Address: Route de Nouadhibou, Lot n° 291 NOT, BP
4925, Nouakchott, Mauritanie

Country: Mauritanie

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Location detail and description of operation:

MAURILOG is a logistics company which bought the transport operation of DB Shenker in Mauritania. Maurilog retained a franchise agreement with DB Shenker and retained all contracts that DB Shenker has signed serving mining, oil and gas companies in Mauritania Tasiast and Kosmos. Maurilog is authorized to transport hazardous materials, including explosives, within the territory of Mauritania.

The company is contracted as a cyanide transporter for Tasiast Kinross, through the franchise agreement it has with DB Shenker, to transport solid cyanide (briquettes) by road from Nouakchott to Tasiast mine. MAURILOG's main operations based is located at Route de Nouadhibou, Lot n° 291 NOT, BP 4925, Nouakchott, Mauritanie Portable : (+222) 36 17 12 88, Tel: +222 45 25 17 30 email: bseddigh@maurilog.com, located approximately 2 km from the port.

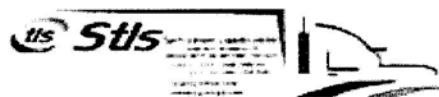
MAURILOG has not yet transported any full containers of cyanide from port to mine site but they have transported many empty cyanide containers or cyanide waste containers. Generally the cyanide is received at the port of Nouakchott by sea in containers, each of which holds 20 one-ton boxes of solid briquette cyanide. The containers are offloaded at the port by a stevedoring company. A due diligence audit was done by Tasiast as part of the ICMI audited supply chain of the cyanide producers and consignors bringing the cyanide into Mauritania. For the purposes of the Cyanide Code pre-operational transportation compliance, MAURILOG's Code responsibilities commence on collection of the containers from the port Nouakchott.

Maurilog

Signature Lead Auditor

3rd August 2015





TRANSPORTATION SUMMARY AUDIT REPORT

The audit exclusively covers road transport from the port of Nouakchott to the Tasiast mining site owned by Kinross.

Containers are delivered from the Quays to the port Container Depot where they are loaded directly onto trucks. MAURILOG's Cyanide Code responsibilities commence once they take the containers from the port area. MAURILOG clears the consignment and MAURILOG's vehicles collect the containers with the documentation and manage them under a Transport procedure (jointly agreed between the mine, and MAURILOG).

The containers of cyanide, are then transported in escorted convoy by MAURILOG, the Mauritanian Environmental Protection Agency (EPA), and Customs and Gendarmerie officials to the mine site. There is neither storage nor interim storage during the delivery journey. The driver manages the communications between the trucks, the escort vehicles, the Emergency Response (ER) team and the convoy manager for the total distance from port to mine site (338 km). The convoy includes a convoy manager, assistant convoy manager, a cyanide first aider, a mechanic, cyanide emergency response equipment for spills and releases and hydrosocobalamine or medical equipment to treat cyanide exposures (splashes, skin exposures, inhalations and ingestions). The convoys includes an EPA official and armed customs and a gendarmerie escort through Mauritanie.

Maurilog

Signature Lead Auditor

3rd August 2015

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Auditor's Finding

This operation is

☒ in full compliance

☐ in substantial compliance

☐ not in compliance

with the International Cyanide Management Code

Audit Company: Safety Transport & Logistics Solution

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Lead Auditor: Ghassan Hussein
& Transport Auditor

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

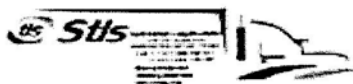
I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations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

Date of audit: 3rd to 9th August 2015



Signed
Lead Auditor: Ghassan Hussein

Date 28-9-2015



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.

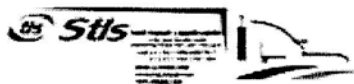
X in full compliance

The operation is ☐ in substantial compliance **with Transport Practice 1.1**
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

A road risk assessment (RRA) is in place for the route between port and Tasiast. The initial RRA was done by Shenker and the reviewed version was done by MAURILOG in July 2015. The initial risk assessment mitigation measures were centered around ammonium nitrate. The reviewed version was amended to cover cyanide. The RRA describes the road risk assessment & route selection based on the level of risk. The Mauritanian government has issued a permit to transport HAZMAT materials to MAURILOG with conditions dictated by government. Due to the nature of the cargo, a permit is given by the ministry for the transport. The cargo is escorted by Environmental Protection Agency (EPA) officials, customs and gendarmerie. The RRA includes Customs barriers, road construction, traffic congestion, standard cautions, cattle crossing, children, and bridges. The RRA also identifies that the convoy leaves Nouakchott at around 4 am in the morning to avoid traffic and minimize human impact. The route selected and approved by the Ministry of Security and Civil Protection & the Ministry of Transport is included in a permit. A flyer describes the cyanide handling, cyanide dangers and the emergency response and is given to the community and used as a basis for training and awareness. Communication with the gendarmerie and with the medical service facility was done using the flyer for discussion. Not all communities are directly consulted but where relevant, communities are involved through discussions and meetings. Documentation indicated that several communities on the road between Nouakchott and Tasiast had been consulted. All cyanide or Hazmat deliveries are conducted using a convoy system with an EPA, Customs and Gendarmerie escort. Furthermore, the custom escorts are needed, due to the exemption that the mines enjoy. An armed customs official is sent along to ensure the cargo arrives at its destination. The Emergency Response team on the convoy consists of the convoy manager, and assistant convoy manager, medical staff, and safety officers. They also have spill kits, Safety escort equipment and the emergency response check for the Tasiast mine contract. The convoy is made up of 1 pilot car ambulance, a paramedic, a mechanic an auto electrician, 10 drivers, 2 gendarmerie, 1 custom official and one EPA official. The external responders are the civil protection authorities, police, and gendarmerie. The community involvement is limited to their abilities and as described by the government permission. The community does not get involved with the cyanide as this is dealt with by the authorities. There is a crisis team lead by el Walli (el Walli is more of a governor who is empowered by the council of people representatives but appointed by government to act as the leader who supervises the rescue). el Walli is a government appointee in the community and not elected. The ER plan addresses each external responder at a different level. Level one is within the company ability, level two goes to the Wali, level three, goes to the Ministry of the Interior or Security, and level four, will involve the government seeking other government support. MAURILOG has printed detailed flyers in French and Arabic on the dangers of cyanide and the emergency and first aid needed. These flyers were sent to el Walli for him to disseminate to the community that he is representing. Furthermore, the convoy has also distributed these flyers to most of the communities that the convoy goes through, bearing in mind that the road to the mine is mostly desert with very few inhabitants. Evidence in the form of pictures and signed minutes of meetings with the EL Walli of Chami was sighted

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.



X in full compliance with

The operation is

☐ in substantial compliance

with Transport Practice 1.2

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified

All truck drivers have permit Cs and are tested by the Apave training company (similar to SGS or BIVAC). They train and certify drivers and equipment. Drivers are allowed to drive trucks above the weight of 19 tons. MAURILOG has a training plan, which includes all the requirements of training for the transporting of cyanide: Basic 1) eco driving- economical to reduce carbon emission for drivers 2) defensive driving training for drivers 3) premier fire training and process to all staff. 4) Loading & offloading - lashing supervisor, drivers and assistants. 5) Transport of dangerous goods. 6) Cyanide training - all workers. 7) Adaptation of MAN diesel truck done by the agent trainer Julio Cesar Rodriguez for drivers 8) chemical risks for all. 9) industrial environmental impact for all staff, and 10) transportation of hazardous materials training for all. The training plan is developed around item 10 and refresher training is done every 6 month. There is also a training schedule for 10 training modules for safety officers which takes care of 1) Cyanide & ER training procedure 2) accident investigation 3) and the road risk assessment.

All personnel operating cyanide handling and transport equipment are trained and certified, that they are fit to do their job by the Apave training company. MAURILOG also trains the personnel on HAZMAT handling and cyanide, bearing in mind MAURILOG have never carried cyanide before. MAURILOG has also identified the critical tasks and critical positions. Based on this frame work, they test and identify strengths and weaknesses in their staff. The critical task competency framework was sighted and reviewed. Various procedures relating to fire training, transportation of hazardous materials training, cyanide transport training, cyanide training, and first aid training were sighted and reviewed. The Critical task and critical position procedure gives each person his specific responsibilities. The containers which contain the cyanide boxes are sealed and loaded onto other trucks at the port by the stevedores. They remain on the truck until unloaded at the mine by the mine staff. Truck drivers receive cyanide hazard training and any cyanide incidents that occur on the journey are handled by the accompanying convoy emergency team who have specialist training, according to the training matrix. The convoy carries all the necessary cyanide emergency equipment (cyanide releases and medical) with them and they are under armed escort.

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

X in full compliance with

The operation is

☐ in substantial compliance

with Transport Practice 1.3

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The weight of cyanide briquettes in a 20 foot container is 23 tons gross weight. The contract between Tasiast and MAURILOG indicates that the transporter should carry only one container per truck. Furthermore, the trucks are actually owned by Tasiast mine but are operated by MAURILOG. The weight of the container, empty, is 2.3 tons and the weight of the cyanide, 20 tons, and the weight of the trailer is 6 tons. The weight of the truck is 8.1 tons so the total is $2.3+20+6+8.3=36.6$ tons. The Mauritanian regulations allow 11 tons per axle and the truck trailer is 6 tons - total 66 tons. MAURILOG has 16 cyanide specific trucks & trailers that comply with Mauritanian regulation, all of which meet the above mentioned specifications. There is a planned maintenance program in place for the tractors, trailers and lifting equipment which are inspected biannually and maintained biannually by APAVE. Brake testing and other inspections are undertaken by a third party specialist or by the vehicle manufacturer's agent, and Apave, at their premises. Maintenance carried on site is monthly maintenance. The on-board computer on the truck dictates the maintenance frequencies, form, and type of service required. Specific truck and trailer maintenance



records were sampled and checked. The trailers are consistently operated at load levels below their legal and design maximums. The design load maximum capacity of the trailers are 60 ton. The net load of cyanide shipments is 20 tons. The truck load bearing capacity for the front steering axle is 6.6 tons and the rear drive axles are 24 tons. Total is 30 tons, breaking down to 10.2 ton per axle.

The cyanide is delivered in standard sea containers which are fitted on a skeleton trailer. It is not possible to overload the trailers because the containers are loaded by the producer with a set number of boxes with a set weight of 20 ton total of container and product is 23 tons. The containers are sea worthy with BIVAC inspection approval all containers comply with the IMDG regulations.

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

X in full compliance with

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

Summarize the basis for this Finding/Deficiencies Identified:

Packaging consists of plastic lined wooden boxes packed into 20 feet containers and sealed. The integrity of the boxes and containers can only be compromised if they are damaged during handling or moisture/dust /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 mine. The cargo is escorted by armed customs officials to mine site because the cargo is exempt from duty so no one is allowed to open the container. Furthermore, a Container Interchange Report is completed and jointly signed by the shipper's representatives and the cyanide transporter's representatives to agree on any damage that may be sighted on the container. There is also a checklist for the container integrity, signed by the driver and the convoy manager, and at the mine on delivery at the port. 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, labelling and general container condition. This checklist is counter signed by the mine representative. A Vehicle checklist confirms no irregularities on the container and vehicle checklist inspections are carried out when the convoy stops during the day and overnight.

Mauritania has no transport regulations but normally, reference is made to international regulations. Required marking and placarding is according to the Hazardous Materials Transportation Manual. In addition, 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 way out. The Transport procedure on cyanide also contains placarding requirements. The procedure refers specifically to placarding as per the IMDG Code requirements. In addition, the last truck in the convoy at the back and also escort vehicles in front and back, have red flags representing danger. There is also placarding to identify that it is a cyanide or hazmat convoy.

MAURILOG has a complete maintenance program incorporated in procedures & inspection sheets. A pre-trip checklist is completed for the truck and trailer before the vehicle is loaded with the cyanide containers. The Auditor met with and discussed pre-trip inspections and also discussed the biannual inspection with staff at Apave.

The Fleet Preventative Maintenance Policy states that preventative maintenance is performed every month on each vehicle. PM tasks are broadly identified as: - Inspection, preventative maintenance, oil changes and tune-ups. These tasks are identified in the TMS (Time Maintenance System) and the manufacturers' manual (truck). A Maintenance procedure includes detailed maintenance requirements (preventative and breakdown maintenance) for tractors and for trailers. However, any major work is done by the manufacturer's agent. The trailer maintenance is done at least every 3 months, or as need be. The site has a pre-and post-trip maintenance check, in addition to the standard 6 monthly checks. Truck and trailer maintenance records were sampled. There is more, between services, maintenance carried out on equipment than manufacturer's requirements.

The company regulation state that the operational hours are 12 hours per day. For total driving hours, it is 8 hours but the driver drives 2 hours and rests 15 minutes. It is not permitted to drive more than 2 hours continuously and the rest areas are clearly defined. The procedure also specifies the maximum hours of duty during any 24 hour period (12 hours); maximum driving hours on duty in any 24 hour period (8 hours); maximum period of continuous driving (2 hours); and minimum daily breaks from driving during period of 12 hours on duty is 90 minutes (split into four 15 minute breaks). There are maximum weekly on duty hours (72 hours), maximum weekly driving hours (48



hours), a working week to be a maximum of 6 consecutive days to be followed by a minimum weekly rest of at least 48 hours.

Cyanide boxes come from the producers and the containers are not opened. The box sizes are such that the boxes fit tightly in the container and do not move. The container matches the trailer size and additional iron chains have been wrapped around the container. There is also a chain crisscrossed in the front and at the back, and locked onto the trailers to provide additional support to prevent movement in transit. The chains are crisscrossing the front and the back using the top container twist lock holes. Other security related issues are covered in detail in the Operational Risk Assessments.

The use of drugs and alcohol is prohibited in Mauritania. There are no bars or pubs to serve alcohol in the country. Such products are not allowed to enter the country from a religious, social and legal perspective. Furthermore, MAURIOLOG has policy to prevent the use of drug and alcohol. Drivers' health condition are checked biannually. Tests in these checks cover drugs and alcohol in the blood.

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

X in full compliance with

The operation is ☐ in substantial compliance **to Transport Practice 1.5**
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

This section is not applicable as no modes of air or sea transport are used.

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

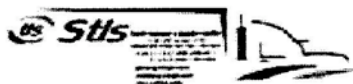
X in full compliance with

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

Summarize the basis for this Finding/Deficiencies Identified:

Communication with vehicles in the cyanide convoy is undertaken using mobile phones. Base HF-wave radio are not portable but connected to the vehicle speakers. There is a driver assistant and it is the driver who uses the radio communication. All the radios can communicate with is the base in Nouackshout, in case of emergency or in case there is no mobile coverage. In each truck, the communication goes directly between the drivers and the convoy manager and all communication is monitored and recorded at the base in Nouackshout. Also the mine has a similar set so all communications are monitored by the mine. Convoy managers have all the appropriate telephone numbers to communicate with MAURIOLOG head office and appropriate emergency responders and emergency services on the convoy route and the mine. The Convoy Manager is obliged to call MAURIOLOG at every stop. All recorded conversations during the trip are reviewed the HSE manager of MAURIOLOG. The MAURIOLOG head office manages all associated communications with the mine and the cyanide producer. Emergency contact list is included in a procedure.

All communication equipment is tested prior to departure of convoy. There is also a continuous use contract with the radio communication company for the servicing of the equipment and immediate replacement for mobile phones



is in continuous use so no test needed. The brand of the communication equipment is Delmore All servicing and maintenance is done by the Delmore agent.

The cyanide from the port of entry to destination is under the control and the responsibility of the customs official and gendarmerie and EPA representative. Furthermore, MAURILLOG transports and delivers sealed containers. A waybill accompanies the convoy which includes chain of custody data such as container numbers, waybill numbers, shipping documentation, Packing list, Bill of Lading, customs declarations, and producer invoice. There is also a procedure describing the process of how to handle and manage the cargo chain of supply. A further procedure details each person's responsibilities. Checks are carried out at customs posts and borders and at the mine site. The convoy stops have checklists which include the inspection of container seals as well as the other documents such as the Declaration, Bill of Lading, suppliers invoice and packing list which are with the customs official and given to mine official when they arrive. Another signed copy of the declaration is taken back by the custom official to prove the delivery is completed as per procedure. The client also has access on the I scout Sheker system and the client can enter the data as and when the convoy arrives at the mine site for transparency and for container demurrage liabilities. The mine enters the waybills and the truck numbers after signing, and the container interchange proof of delivery are signed by the mine and there is container tracking on the I Scout item.

An MSDS was sighted with the emergency contact details and is placed in vehicles. All shipping documents are kept with the escorting custom officer. A copy of the documents are with the convoy manager during transit and the escorting customs official since the cargo is exempt from duty or has special tariffs and is escorted by armed customs official from port to destination to avoid tampering and loss to the state revenue. The Customs official holds the documents until arrival at the destination and gets it signed by the mine officials to prove the cargo arrived at site, for exemption purposes. The customs officer also manages all the customs barriers on the way.

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.

X in full compliance with

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

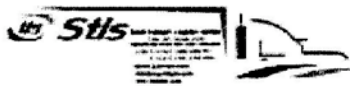
Summarize the basis for this Finding/Deficiencies Identified:

Not Applicable. There are no situations where interim storage occurs since the cargo is under the customs custody and customs does not allow the exempt cargo to park or be sent anywhere apart from the approved route.

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.

X in full compliance with



The operation is ☐ in substantial compliance with Transport Practice 3.1
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

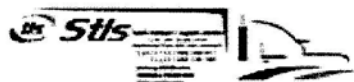
The Emergency Response Plan procedure is updated yearly or when the client has some new inputs or the ER plan is activated needing amendment to the procedure. There is no interim storage but the Plan covers different scenarios and different routes specified eg. Truck rollover on dry soil conditions, crash with another vehicle, and the routes from the port to MAURIOLOG and from MAURIOLOG to clients. As all cyanide deliveries are made in convoy, the accompanying Emergency Response Team will implement the Emergency Response Plan unless more support is needed. Then they will report to head office or external responders whose responsibilities and obligations are stated in the Plan. These also describe at what level each of these external responders should be called on. The Mauritanie Logistique Emergency Response Plan details the arrangements to prepare for, respond to, manage and recover from any realistically foreseeable emergency associated to the Mauritanie Logistique contract. procedures cover the Mauritanie Logistique Incident Response Telephone Log Checklist with Initial Situation appraisal, the Emergency Contact Numbers and incident recording, and the Echo Yard Emergency Evacuation Plan Emergency Action & Evacuation Plan for Echo Yard. A procedure also describes the drills and exercises to be performed for Mauritanie Logistique services and operations and proposes a long-term planning schedule as to when these should occur. Dry Bulk Chemical Handling Procedures detail the mechanisms for handling and managing chemicals and dangerous goods. The Health Protection Agency - Sodium & Potassium Cyanide Incident Mgt Plan is the overall guide to dealing with incident management involving Sodium & Potassium Cyanide. The Integrated Plan Transport of DG details the arrangements in place for the transport operations, in particular, the Transportation of Dangerous Goods. Consignes Sureté Echo Yard describes the requirements and methodology for carrying out the sub-contracted security details at the NOUAKCHOTT (NKC) Hub. The Incident Hazard Reporting and Investigation procedure details the requirements for reporting and investigating incidents and establishing root causes, ensuring preventative actions are planned and implemented. The main Plan only deals with solid cyanide (cyanide briquettes). The only liquid covered in scenarios and planning is if the cyanide briquettes fall into a liquid medium. Currently, the only form of cyanide that is transported is solid cyanide briquettes.

MAURIOLOG only undertakes road transport and all risk assessments just cover road transport. Route risk assessments are fully reviewed every year but feedback is done on every trip and the port due diligence is done by the Tasiast supplier. The customs escort with gendarmerie escort is also used for every delivery. The Mauritanie Logistique Emergency Response Plan details the arrangements to prepare for, respond to, manage and recover from any realistically foreseeable emergency associated to the Mauritanie Logistique contract.

The Plan considers all aspects of road transport only, since sea air and railway are not part of the scope. The Mauritanie Logistique Incident Response Telephone Log Checklist with Initial Situation appraisal as well as Emergency Contact Numbers and incident recording, MAURIOLOG do not uses tanks.

Training for ERP procedure describes the drills and exercises to be performed for Mauritanie Logistique services and operations and propose a long-term planning schedule when these should occur. The Plan also includes a series of likely scenarios: - Truck breakdown; truck accident-no spill; truck accident-spill; driver injury or security risk-armed robbery has civil unrest, cancel of order and rejection of cargo by the mine all has been addressed. Also external responders are detailed as there are 3 government escorts, gendarmerie EPA and customs. However, the customs official is the actual custodian of the cargo until arrival at final destination. As all cyanide deliveries are made in convoy, the accompanying Emergency Response Team will implement the Emergency Response Plan unless more support is needed and then they will report to head office or external responders whose responsibilities and obligations are stated in that Plan which also describes what level each of the external responders should called upon.

The Mauritanie Logistique Emergency Response Plan details the arrangements to prepare for, respond to, manage and recover from any realistically foreseeable emergency associated to the Mauritanie Logistique contract. ML-TRG-11-104 Rev02-E Training for ERP describes the drills and exercises to be performed for Mauritanie Logistique services and operations and proposes a long-term planning schedule when these should occur.



The Dry Bulk Chemical Handling Procedures details the mechanisms for handling and managing chemicals and dangerous goods. The Health Protection Agency - Sodium & Potassium Cyanide Incident Mgt Plan is the overall guide to dealing with incident management involving Sodium & Potassium Cyanide. The Integrated Plan Transport of DG details the arrangements in place for the transport operations, in particular, the Transportation of Dangerous Goods. The Consignes Sureté Echo Yard describes the requirements and methodology for carrying out the sub-contracted security details at the NOUAKCHOTT (NKC) Hub. The Incident Hazard Reporting and Investigation procedure details the requirements for reporting and investigating incidents and establishing root causes, ensuring preventative actions to be planned and implemented. In the Dry Bulk Chemical Handling Procedures, the majority of scenarios will be responded to by the convoy's own dedicated emergency response team and the government officials on the convoy will take over the government communication and external responders. Any outside additional assistance would be requested or coordinated through the Ministry of Security. The possibility of using outside medical responders has been addressed. There are only 3 possible medical facilities, 2 in Nouakchott, and one at Chai, as the rest of the country is just desert and there are mostly only small clinics which are inadequate to deal with cyanide cases.

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

X in full compliance with

The operation is ☒ in substantial compliance **with Transport Practice 3.2**

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

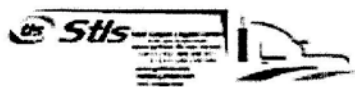
The Health Protection Agency - Sodium & Potassium Cyanide Incident Mgt Plan is the overall guide to dealing with incident management involving Sodium & Potassium Cyanide. The Critical task and critical position manual of authority procedure indicates the training and competency needs of all jobs and includes emergency response. The training matrix procedure shows if Emergency Response training has been completed. The Convoy team members are trained in emergency response. Training records for 2015 were sighted and the auditor interviewed chief drivers and members of the convoy emergency response team.

The Integrated Plan Transport of DG details the arrangements in place for the transport operations, in particular, the Transportation of Dangerous Goods. The Manual of Authority for Emergency Response includes duties and responsibilities.

Procedure - main Yard - inventory of emergency equipment lists the equipment available in the yard in case it is needed to mobilize for an incident with 1 ambulance and 4 escort cars. The procedure also states the equipment needed and available per convoy. The equipment is checked per trip and monthly expiry and testing is done per inspection. Stocks of 1 tons of sodium hypochlorite are available in the yard and 100 kg of sodium hypochlorite are kept at the mine sites. In addition, 100kg per convoy is carried. The convoy checklist indicating emergency equipment carried was reviewed and checked against actual equipment during inspection. Consignes Sureté Echo Yard procedure describes the requirements and methodology for carrying out the sub-contracted security details at the NOUAKCHOTT (NKC) Hub.

All members of the convoy team (escort vehicle and drivers and safety officers) are trained in the Emergency Response Plan and receive regular refresher training, including occasional mock drills. Pre-trip briefing includes a refresher of emergency procedures and this was verified by interview by the auditor. Details the requirements for reporting and investigating incidents and to establish root causes, ensuring preventative actions are planned and implemented was confirmed by interview.

Verification of the equipment is done, pre-trip and post-trip, by the convoy manager and the record using checklists is maintained by the convoy manager. MAURILOG yard equipment is tested and checked monthly. The HCN detector is tested for its functionality before every convoy and is sent to the manufacturer when due for calibration every 12 months. The current HCN monitor was purchased on 30-6-2015 from Dräger. The hydrosocobalamine antidote was purchased on 30-6-2015 and is valid for 18 month. The Plan only deals with solid cyanide (cyanide briquettes). The



only liquid covered in the Plan is if the cyanide briquettes fall into a liquid medium. Furthermore, currently, the only form of cyanide that is transported is solid cyanide briquettes.

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

X in full compliance with

The operation is ☒ in substantial compliance **with Transport Practice 3.3**

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Contact information is included in the ER plan, and is also replicated in the vehicles, laminated in the vehicle TREM card. The convoy manager will communicate with the base who will regulate communications and reporting procedures to interested and affected parties and other bodies that need to be communicated with. The communication information is contained in the ER plan which was reviewed by the auditor. The Plan and communication requirements and details are updated annually when all procedures are due for update, or in case of emergency.

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

X in full compliance with

The operation is ☒ in substantial compliance **with Transport Practice 3.4**

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Recovery and treatment of Spills; Recovery of Solids; Neutralization or removal of soils; Treatment and or disposal of soils; reclamation of Sodium Cyanide; Transport of contaminated materials; Neutralization for cyanide dust or cyanide particles source and Treatment. And not to use chemical in water bodies. Are included in the Emergency Plan.. Any cyanide that is picked or soil neutralized is sent to the mine for disposal or put back into the process. All actions involving clean up and neutralization of soil and disposal is done by the safety officer. The driver's only task, based on the ER plan, is to assist the police to secure the perimeters of the incident. The safety officer provides the initial response to the incident.

It should be noted that the area travelled is desert with very little or no water.

Water is an expensive and rare commodity, and to avoid cyanide seeping into underground water, the process of neutralization is done at the mine and minor management is done at the point of incident

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

X in full compliance with

The operation is ☒ in substantial compliance **with Transport Practice 3.5**

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

There are 6 specific conditions for revision specifically stated in the procedure. The conditions are:- 1. After an accident to add the learning points; 2. After a requirement from the Tasiast mine; 3. After a drill where there was variation in the implementation; 4. After the yearly review or procedural yearly review, if required; 5. Where there is a change in law or the regulations; and 6. If there is a force majeure in case of earthquake or change of weather. It should be noted that all the changes must be accepted by the mine who must formally approve any changes. All procedures must be signed by the MD, Mr. Yahya, before they are formally implemented.

MAURILOG conduct mock emergency drills that simulate transport-related exposures and releases. MAURILOG have only conducted their first cyanide drill. The drill was conducted on 15 April 2015 and the scenario was a cyanide truck accidentally rolled over at Chami, 228 km from capital, but with no spill. The Drill evaluation filled in onto drill evaluation report template the report was reviewed along with the feedback form from attendees and observers. MAURILOG have, however, done several drills with Shenker on ammonium nitrate and HCL. The cyanide training included the emergency response plan training.

The drill procedure and evaluation procedure are available and were sighted. The drill document and evaluation of incident referring to the truck accident with no spill were reviewed along with the procedure. The plan was reviewed based on the findings of the assessment of the drill. The evaluation sheet was reviewed and the finding and the required amendment was added to the ER plan. The cyanide training also includes a practical or desktop drill to ensure participants adhered to their training.

