# International Cyanide Management Code.

# Bolloré Transport & Logistics, Sénégal. Cyanide Transportation Re-Certification Audit.

# **Summary Audit Report.**

# Report submitted to:-

1400 I Street, NW, Suite 550 Washington. DC 20005 Unites States of America

# Report of:-

Bolloré Transport & Logistics Sénégal Km 4, 5 Rte de Rufisque, B.P. 233, Dakar. Sénégal



#### 1.0 INTRODUCTION.

#### 1.1 Operational Information.

Name of Transportation Facility: Bolloré Africa Logistics, Sénégal.

Name of Facility Owner: Bolloré Africa Logistics, Sénégal.

Name of Facility Operator: Bolloré Africa Logistics, Dakar. Sénégal.

Name of Responsible Manager: Mr. Alioune Counta.

Quality, Health, Safety & Environment Manager. Sénégal.

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B.P. 233

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#### 1.2 Description of Operation – Bolloré Africa Logistics, Sénégal.

#### 1.2.1 Company Profile.

The Bolloré group was founded in 1822. From the beginning in thin paper, the group has diversified its product ranges and services. It is now involved in plastics films for capacitors and packaging, electric batteries, thin papers, transportation in Africa (freight forwarding and stevedoring, railways) and international logistics, fuel distribution and dedicated terminals and systems.

Bolloré Transport & Logistics Sénégal offers tailored multimodal logistics solutions, addressing all the demands of companies established in Sénégal and its sub-region. Their multi-site presence in Dakar, Kaolack and Kidira (RoRo terminal and shipping agencies) in addition to their own trucking capabilities and large storage capacities (over 50,000m² of warehouses and container storage areas) allows them to provide flexible end-to-end logistics services to many industry sectors, including large industrial projects with heavy parcel transport.

Bolloré Transport & Logistics is a major international transport and logistics operator. The 36,700 employees spread across 106 countries on five continents express their expertise through four businesses. Bolloré Ports, Bolloré Railways, Bolloré Energy and Bolloré Logistics are today working in synergy to deliver their international customers a turnkey service offer.

Bolloré Logistics is a global leader in international transport & logistics. Constantly adapting to its customers' changing needs, the company has enriched its expertise to become a tier-one supply chain partner and one of the top 10 transport and logistics companies in the world with the largest integrated logistics network in Africa.

The Africa transportation arm of the Group is managed by Bolloré Africa Logistics which has been established for more than 50 years. The Company is involved in port activity, terrestrial transport and logistics solutions. Bolloré Transport and Logistics is one of the largest transport and logistics operators in Africa.



Bolloré Transport & Logistics Sénégal conducts freight forwarding, stevedoring and transportation activities within Sénégal and Mali.

Bolloré Transport & Logistics is a major international transport and logistics operator with approx 36,700 employees spread across 107 countries express their expertise through four businesses. Bolloré Logistics, Bolloré Ports, Bolloré Railways and Bolloré Energy are working in synergy to deliver their international customers a turnkey service offer. In Africa, Bolloré Transport & Logistics has the largest integrated logistics network and is the leading port infrastructures operator.'

# 1.2.2 Sodium Cyanide Transportation.

Cyanide in briquette form, is packaged in intermediate bulk containers (wooden IBC's) which are in turn packed into a 6 meter freight container and transported by sea from the Consignor to the Port of Dakar. A maximum of 20 wooden fabricated IBC's are packed into a freight container with a maximum gross mass of the product of 20 tonnes.

Prior to the arrival at the Port of Dakar, Bolloré Transport & Logistics ensures that the shipping documentation is in order and the goods are pre-cleared to allow prompt handling of the product through the Port of Dakar.

About 99% of the dedicated truck tractors and trailers are owned by Bolloré. The truck tractor drivers are full time Bolloré employees with average of 5 years experience in driving of heavy vehicles. Five truck tractors and drivers are provided by company called TAL and Mamadou DIOP

Bolloré Transport & Logistics is comprehensively equipped with a wide range of well-maintained transportation equipment and vehicles. To ensure a high quality, efficient and prompt service, the vehicles are serviced in accordance of the manufacturer's specifications.

A convoy of 1 to 4 vehicles only require one (1) convoy Leader where as a convoy of four to seven vehicles, requires two Convoy Leaders. One lead and one trailing with each Convoy Leader travels one armed response police official.

The movement of vehicles are controlled by utilising a tracking system which is monitored from the Bolloré Transport Operation Centre based in Dakar.

De-stuffed Sodium Cyanide freight containers are returned to the Port of Dakar where it is off-loaded and forwarded to the Cyanide manufacturer. No nominally empty freight containers are or will be stacked at the transporter's depot. Containers are taken directly to shipping liners permises.

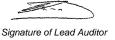
# 1.2.3 Transit storage.

Bolloré Transport does not operate cyanide-shipping depots or interim storage facilities.

Within the scope of this audit, there are no trans-shipping depots or interim storage sites at the transporter's premises.

Storage in transit does occur at the Port of Dakar under the control of the Port Authorities, while formalities such as customs clearance and carrier releases are performed. Once formalities are complete, the cyanide containers are collected from the Port of Dakar by Bolloré. Loading of containers onto trailers are done by an independent company DP World Dakar Terminal at Port of Dakar, Sénégal . Loaded vehicles move from the port to the Bolloré depot where vehicles are parked and overnight in preparation for convoy departure at 05:00 hours the following morning.

At no stage does freight containers, each loaded with 20 ton Sodium Cyanide in briquette form in wooden boxes, removed from the trailers. The unloading of the freight containers is undertaken by the Consignee.



In the event of inclement weather such as sandstorms, rainy weather, etc the collecting of containers will be postponed until such time as the weather has improved. Should such weather be experienced whilst on route, the entire convoy is parked at a safe parking area on route until wind or storm has subsided. Convoy leader reports the situation to the Depot Manager in Dakar.

#### 1.2.4 Aices SA.

Aices SA (Aices) is a Sénégal emergency response and training service provider that has been subcontracted by Bolloré to provide convoy escort duties and emergency response for cyanide transportation.

#### 1.2.5 Transport Afrique Logistique (TAL) and Mamadou Diop.

These two companies hire out truck tractors and drivers to Bolloré to compliment the transporter's fleet for the transportation of cyanide to the following mines: Syama,, Mako, Yanfolia, Morila, Sadiola & Fekola mines.. Bolloré has full control over the vehicle and the drivers. Vehicles been serviced by the owners.

# 1.3 Auditor's Findings.

This operation is

#### X in full compliance

 $\hfill \square$  in substantial compliance

□ not in compliance

with the International Cyanide Management Code.

For cyanide transportation operations seeking Code certification, the Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: T.B. Müller South Africa

Audit Team Leader: T.B. Müller

E-mail: tommieb.muller@gmail.com

Names and Signatures of Other Auditors: None

Date(s) of Audit: Audit was conducted from 1st to 3rd July 2019.

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 Pre-Operational 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.

Name	Position	Signature	Date
T.B. Müller	Lead auditor.		14 <sup>th</sup> October 2019



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

# Summarize the basis for this Finding/Deficiencies Identified:

Bolloré, through its parent company Bolloré Africa Logistics has developed and implemented a procedure to guide the selection of transport routes to minimise the potential for accidents and releases or the potential impacts of accidents and releases. Bolloré in consultation with its service provider Aices, cyanide suppliers and mining company customers, has implemented the procedure and conducted route surveys for the selected routes

Sénégal has a designated east-west commercial route travelling from Dakar, Sénégal to the Mali boarder. This commercial route was selected at the most appropriate route to deliver cyanide to existing customers within Sénégal and to access mine sites within Mali.

Route Risk Assessments (RRA's) on primary and secondary routes were conducted and observations made. During the RRAs on both the selected routes, various potential hazard types such as the condition of the road surface, the pitch of the road, potholes, trees, stray animals, traffic on the roads and through towns, pedestrians, fog, smoke, sand, rail tracks, population density, rivers, bridges, sand storms, etc have been evaluated and noted in the assessment documents. Recommended preventative actions to mitigate or eradicate the risks on selected routes are included in RRA assessment document.

External Emergency Responders e.g. applicable governmental agencies Police, Fire Services, Ambulance Services, Clinics and Hospitals (medical facilities) along the route, who will play a role and responsibility during an emergency, were net and consulted. During these meetings Bolloré sought their inputs from these institutions. Product MSDS handed to each of the emergency services.

Hazards identified during the route survey are risk assessed using either the Bolloré Transport Logistics Sénégal Risk Evaluation Matrix or assessment tools depending on customer requirements. Once risk assessed, prevention and/or protective measures are identified and implemented to make the resulting risks more acceptable.

Bolloré Transport Logistics Sénégal has implemented a procedure requiring annual route surveys and has a process of obtaining feedback from the Escort Leader on route conditions after each convoy.

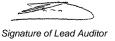
Bolloré Transport Logistics Sénégal has documented measures taken to address risks identified with the selected routes within a Transport Management Plan.

Paragraph in the Transport Management Plan specifies the requirement that all convoys are accompanied by a transport security service provider called "Action Security" and vehicle escort services supplied by either one of two Companies "Aices" or "Arcane".

Cyanide is delivered in convoy over a nine month campaign each year during the dry season.

In the event of an incident, primary emergency response is coordinated by Aices using Aices and Bolloré Transport Logistics Sénégal personnel present with the convoy. Secondary response activities are conducted by Aices and supported by the supplier and Bolloré.

A light delivery vehicle equipped with all the required emergency equipment that will be needed during an unwanted event is used as a Escort vehicle. (Spill kit and first aid kit are available).



Bolloré Transport Logistics Sénégal in consultation with its external emergency responders, subcontractor, cyanide suppliers and their customers, has implemented the procedure and conducted route surveys for the selected routes. Route Risk Assessments were conducted and cyanide management measures developed.

In the event of an incident, the duties of primary responders include immediate notification to government authorities and medical facilities (as necessary). The Mali and Sénégal public responders (police and fire brigades) do not have a direct role in incident management outside of their normal duties and Bolloré has limited their consultation.

Bolloré subcontracts Aices to undertake convoy management, emergency response and training (convoy management and dangerous goods training) of drivers. A formal contract in place between Bolloré and Aices which was signed by the Bolloré Directeur General and Aices Administrateur This contract was reviewed and updated on 19th August 2019.

The contract notes that Bolloré Transport Logistics Sénégal is a signatory of the ICMI code and the contractor (Aices) must comply with the Code's requirements.

Transport Afrique Logistique (TAL) and Mamadou DIOP provide trucks and drivers for the transportation of cyanide. The drivers are managed within the Bolloré system to ensure appropriate training is provided and compliance with the ICMC. The vehicles are required to be maintained to Bolloré's requirements. Maintenance records are provided to Bolloré for inspection and Bolloré conduct pre-departure inspections as well to confirm the equipment meets their standards including ICMC requirements

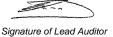
During the RRAs on the selected routes, various potential hazard types such as the condition of the road surface, the pitch of the road, potholes, trees, stray animals, traffic on the roads and through towns, pedestrians, fog, smoke, sand, rail tracks, population density, rivers, bridges, sand storms, etc have been evaluated and noted in the assessment documents. Recommended preventative actions to mitigate or eradicate the risks on selected routes are included in RRA assessment document. RRA procedure found to be in place, appropriate and approved.

External responders, police and emergency services (Fire Services), Clinics and Hospitals (medical facilities) along the route, who will play a role during an emergency, were met. During these meetings Bolloré sought their inputs from these institutions regarding routes that may be followed. Proof of such visits was noted. Product MSDS handed to each of the emergency services.

The Company has implemented a procedure requiring the route surveys be revised at least on an annual basis and has a process of obtaining feedback during debriefing sessions on route conditions after each convoy. This forms part of the Convoy Leader's responsibilities.

A procedure "Route Risk Assessments" (RRA) number BLX-AFR-HSE-PRO-0017 Rev 07, requires the regularly evaluate and re-evaluate the risks on both the primary and secondary routes that the cyanide consignment will travel on. Clause 5.2.4 (Validity of the Survey) of procedure states that the process for selecting transport routes and conducting of RRAs is re-evaluated: -

- ❖ Before resuming operations after a shutdown greater than three months.
- Following a significant change which occurred on the route.
- Following a significant evolution of the operations performed on the route.
- ❖ When, following convoys, drivers report major changes on the road conditions.
- In a general way, on a twice a year basis, considering at least one revision during dry season and one revision during rainy season. In the case that operations are only performed on dry season, the road-survey during rainy season is optional.



Further procedure requires that the identified risks be captured and managed. Procedure was approved by Company Management of which copies were forwarded to Consignor.

The "Performing Road Survey" procedure requires routes to be risk assessed and identified management measures to be documented within a Transport Management Plan (TMP). Bolloré has developed Transport Management Plans for routes they follow to the mines.

In accordance to the de-briefing procedure it is a requirement that during the de-briefing session, the escort leader to report on areas of concern on the route or areas that, according to him, being unsafe to travel or what Management to take cognisance of.

**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:

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

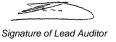
Bolloré only uses trained and competent operators to drive its trucks. Bolloré has dedicated Bolloré drivers that have appropriate training and valid vehicle licences to transport cyanide. Personnel operating cyanide handling and transport equipment have also been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposures.

Bolloré's Training Matrix identifies the names of each driver and tracks their training against the following mandatory modules: -

- Cyanide Awareness;
- Company's Transport Management Plan;
- Route survey Risk assessment;
- Defensive Driving Techniques;
- Company's Emergency Response Plan and Drill;
- Handling of dangerous goods;
- The wearing of PPE;
- Cyanide first aid;
- Basic first aid;
- Theoretical and practical fire fighting; and
- General Driving Rules.

Drivers are not directly involved in the physical loading and or off-loading of containers. Once container has been loaded onto the skeletal trailer, the driver ensures that the container is properly secured to the trailer by engaging all four twist locks.

Bolloré do not directly outsource any of the cyanide transport activities to sub-contractors. They have however entered into a contract with two transport Companies to provide vehicles to supplement their fleet. The company have entered into a contract with two (2) sub-contractors namely TAL and Mamadou Diop.



Bolloré uses dedicated Company employed drivers and that of TAL and Mamadou Diop that have appropriate training and vehicle properly maintained and licenced to transport cyanide. Mali and Sénégal are both members of CEDEAO and drivers' licences issued in Sénégal are valid other CEDEAO member countries.

Sénégal and Mali do not have any dangerous goods legislation, despite this; dangerous goods training of all cyanide drivers are provided by Bolloré.

All personnel operating cyanide handling and transport equipment have been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposures. The training of cyanide handling and transport equipment operators is provided by two escort service providers namely Aices and Arcane.

Bolloré subcontracts Aices and Arcane to undertake convoy management, emergency response and training (convoy management and dangerous goods training) of drivers. A formal contract have been developed between Bolloré and Aices was signed by the Bolloré Directeur General and Aices Administrateur Generalor. This contract was reviewed and updated on 19th August 2019.

The contract notes that Bolloré is a signatory of the ICMI code and the contractor (Aices) must comply with the Code's requirements.

TAL and Mamadou Diop provide trucks and drivers for the transportation of cyanide. The drivers are managed within the Bolloré system to ensure appropriate training is provided and compliance with the ICMC requirements.

Refresher training was presented during November 2019 to their employees who are involved in the cyanide transportation activity as well as those employees of their escort companies (Aices and Arcane). Bolloré's training material was used for the training and records of theses training are filed at Transporter's offices.

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	

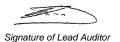
Summarize the basis for this Finding/Deficiencies Identified:

Bolloré Transport & Logistics require that personnel operating cyanide transport equipment can perform their jobs with minimum risk to communities and the environment and that the transport equipment is suitable for cyanide shipment.

Bolloré only uses equipment designed and maintained to operate within the cyanide loads it will be handling. Equipment consists of a truck tractor (prime movers) and semi-trailers that were purchased to a design specification appropriate for the cyanide transport task. Technical specifications including truck tractor power, axle loadings and other parameters are set by the manufacturer specifications and the loads, are within the legal capacities of the public roads.

Truck tractors are maintained according to manufacturers specifications as well as Company own standards. Truck tractor been serviced every 30 000 kilometres. Skeletal trailers been serviced once per month as per "Company's preventative maintenance procedures" and every 12 months to obtain Certificate of Fitness (COF) certification. The same applies to TAL and Mamadou Diop.

Trailers dedicated to the cyanide delivery task are capable of carrying two cyanide containers. No other load bearing equipment is used by Bolloré for cyanide transport.



Bolloré has implemented a preventative maintenance program that is based on truck engine hours. Upon returning to the transport yard, the information is entered into a maintenance database and used to schedule maintenance activities. Complementing this is a maintenance request program where faults can be logged using a job card system.

All equipment is checked during the preventative maintenance programmes and vehicle inspections to verify the adequacy of the equipment for the load it must bear.

Preventative and maintenance procedure requires that drivers to conduct a pre-trip check before transport departs from depot and daily whilst on route. It is a requirement that both driver and Escort Leader to endorse the pre-trip checklists.

Bolloré has implemented a preventative maintenance program that is based on truck engine hours as well as a maintenance request program for breakdowns noted. In addition to the workshop maintenance, the Convoy Leader and drivers conduct an inspection of all prime movers and trailers prior to departure.

Bolloré has procedures in place to prevent overloading of the transport vehicle being used for handling cyanide. Bolloré mostly transports two containers on a single 4-axel trailer with a gross weight 60 to. Each trailer carries 2 x 6 meter (20 ft) containers load of sodium cyanide with weight totalling of 46ton.

Just outside of Dakar to the consignee's facility, each convoy vehicle has to pass over a weigh bridge.

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:

Bolloré has a procedure to ensure that packaged Sodium Cyanide stacked in freight containers, is transported in a manner that maintains the integrity of the producer's packaging. Placards are used to identify the shipment as cyanide.

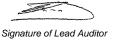
The checking of the integrity and condition of the container prior to loading at the Port of Dakar is to ensure that the seals are still intact, container seal numbers as at the port and container number corresponds with that on shipping documentation, split placards are visibly displayed on all four sides of the freight container and the physical condition of the containers ensuring that it is fit to be transported.

Escort Leader is not allowed into the restricted area on the port premises where the classified products are kept. Only the driver of the truck tractor is allowed inside this area. This practise is to minimise the movement of people in this area thereby reduces the risk of injuries to people should condition changes to the negative. Once the vehicle with cargo is outside the restricted area, the Escort Leader conducts checks of the containers to be in good condition, any product leaks, the container door seals intact as well as the required placarding displayed.

Once the containers are lowered onto the trailers, the twist locks are locked in the locking position. This is done to ensure the proper securing of the container to the framework of the trailer.

Bolloré requires that the operation develop and implement a safety program for transport of cyanide. Bolloré has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer's packaging. These comprise checks at the port, route, border crossings and checks and the mine site prior to unloading.

Bolloré transport cyanide for Code certified cyanide producers, who have systems in place to ensure their containers are labelled in accordance with the International Maritime Dangerous Goods (IMDG) Code and as



required by local regulations or international standards. Mali and Sénégal do not have any dangerous goods legislation. 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.

Bolloré has implemented a safety program for cyanide transport that includes:

- Vehicle inspections. Pre-start inspections are recorded and included as part of the Cyanide Trip Report.
- Vehicle preventative maintenance and services maintenance program.
- Limitations on drivers' driving hours. Bolloré limits the maximum time for continuous driving at three hours. Driver must take a break of fifteen minutes before continue the journey. Drivers Hours Policy in place.
- The routes have been appropriately planned with breaks and approved stop locations. Driving is conducted during daylight hours.
- Transporter has a drug and alcohol policy that establishes a zero tolerance stance on the intake of alcohol and the use of drugs by employees when on duty.
- Daily alcohol tests been conducted on operational staff members & visitors. Proof of such activity available at the Depot. Alcohol tests also conducted on drivers before cyanide transportation commences to ensure that they have no traces of alcohol in the system.
- Pre-trip vehicle inspections are performed prior to the commencement of each journey. Findings and observations documented on checklists.
- Securement of containers onto trailers is done by twist locks which are designed and constructed to international transport standards.
- Responsibility been delegated to Escort Leader for ensuring that diversion from the approved route, is safe for the convoy to pass. Management to be informed in this case.
- Drivers been subjected to annual medical screening conducted by an Occupational Health Practitioner to ensure driver fitness.
- During pre-employment medical test applicants are subjected to a drug & alcohol test. Test results to be negative before employment contract is signed.
- Fatique Management procedure.
- Procedures to prevent loads from shifting. At the Port of Dakar, containers are secured using twist locks.
- Procedures to modify or suspend transport if conditions such as severe weather or civil unrest are encountered. The Transport Management Plans note that if the weather is considered unsuitable, a trip is cancelled after due assessment by the Convoy Leader.

Documentary evidence on the maintaining of the above, kept on file.

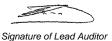
Bolloré conducts alcohol test on drivers, escort team and document and document the findings on appropriate register for record purposes. Organize short training to the convoy leader on the use of the breathalyzer and evidence sent to the auditor.

Bolloré subcontracted Aices to undertake convoy management, emergency response and training (convoy management and dangerous goods training) of drivers. A formal contract in existence between Bolloré and Aices and was signed by the Bolloré Directeur General and Aices Administrateur Generalor. This contract was reviewed and updated on 19th August 2019.

The contract notes that Bolloré is a signatory of the ICMI code and the sub-contractors must comply with the Code's requirements.

TAL and Mamado Diop provide trucks and drivers for the transportation of cyanide. The drivers are managed within the Bolloré system to ensure appropriate training is provided and compliance with the ICMC.

Bolloré has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer's packaging. Container lowered onto the trailer, the applying of the twist locks into locking position thereby ensuring proper securing of the container with the twist locks into locking position. Container lowered onto the trailer, the applying of the twist locks into locking position thereby ensuring proper securing of the container with the twist locks into locking position. These comprise checks on the container, twist locks and container seals at the port, on route and at the mine site prior to unloading.



Bolloré transports cyanide for two certified cyanide producers, who have systems in place to ensure their containers are labelled in accordance with the International Maritime Dangerous Goods (IMDG) Code and as required by local regulations or international standards.

Documentary evidence on the maintaining of the above, kept on file.

Transport signage format and styling dictated by the requirements to be in line with recommendations of the United Nations, read in conjunctions with the requirements of the IMDG code of practice.

Transporter ensures that freight containers are placarded with split placards on all four sides of the container. Split placards will consist of the UN number of the product, the primary hazard class diamond and secondary hazard class diamond.

Product UN number been displayed on the front of the cab of truck tractor and at the rear end of the trailer indicating what product is loaded. Placards remain on the container until containers are unpacked and decontaminated.

Bolloré's truck tractors are serviced at 250 hour intervals. Annually trailers are subjected to a major service. Service details are recorded on electronically vehicle service records. Servicing of vehicles are done by qualified mechanics. The transporter's vehicle preventative and maintenance program was found to be sound and sufficient to ensure the safe transportation of the cyanide. Truck tractors and trailers of TAL are serviced at 12 000 kilometres intervals. Service records of vehicles kept.

Document "Control of Records" in place. Delivery document (POD), Trip sheets, Planning sheets, Vehicle Inspection Sheets, Weighbridge tickets are archived for a minimum period of 5 years. Medical records are retained for 40 years from date of exit.

Escort services supplied by two escort service providers namely "Aices" or "Arcane". A company called "Action Security" renders a security service to Bolloré Senegal whilst cyanide is transported to the end user

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

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

Summarize the basis for this Finding/Deficiencies Identified:

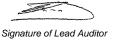
Not applicable to this operation as no shipment of cyanide is done by sea and air.

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:

All vehicles have communications systems that include cell phones and a GPS tracking system for trucks and cell phones for the escort vehicles.



All vehicles have communications systems that include two way radios, cell phones and a GPS tracking system for trucks and two way radios, cell phones and satellite phones for the escort vehicle.

The two way radios are used for internal convoy communication. The Escort Leader uses the Satellite phone to communicate with Bolloré depot where black out areas been experienced whilst on route. Whilst on route. every morning and evening the Aices Escort Leader gives a situation report to his depot.

During the conducting of the RRA, Bolloré has not identified any cell phone communication blackout areas along transport routes.

Test procedure compiled and implemented. Communication media is tested as part of a pre-start check to ensure it functions properly as it been used on a daily basis. The GPS tracking system signal is used continuously and is transmitted from each truck throughout the trip.

Bolloré implements chain of custody procedures to prevent loss of cyanide during shipment. The TM Plan stipulates that the drivers to check for the presence of the relevant split placarding that are to be displayed on the four sides of the container. Drivers also need to check the physical condition of the containers before they are loaded onto the trailers.

Escort Leader is not allowed into the area where the classified products are kept on the port premises. Only the driver of the truck tractor is allowed inside the restricted area. Once the vehicle with cargo is outside the restricted area, the Escort Leader conducts checks of the containers to be in good condition, any product leaks, the container door seals intact as well as the required placarding displayed.

Once delivered, a mine site representative signs a form acknowledging that the consignment was received in good condition and unopened.

Shipping papers and Material Safety Data Sheets accompany each cyanide convoy.

TAL and Mamadou provides trucks and drivers for the transportation of cyanide. The drivers are managed within the Bolloré system to ensure appropriate training is provided and compliance with the ICMC.

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 with **Transport Practice 2.1** □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

This transport practice is not applicable this Bolloré facility as no interim storage of cyanide is done.

Within the scope of this audit, there are no trans-shipping depots or interim storage facilities on the depot premises, as defined in the audit protocol. Storage in transit do occur at the Port of Dakar for four to five days, but under the control of the Port Authorities, while formalities such as customs clearance and carrier releases are performed.

Once formalities are complete, the cyanide containers are collected from the Port of Dakar by Bolloré and taken to the Bolloré Transport Yard where they are stored on the truck overnight in preparation for convoy departure early the following morning. No interim storage for more than 12 hours is allowed at the depot. All loaded vehicles leave



the site the following morning at around 05:00. Therefore this storage of cyanide is not regarded as stored in legal terms.

No freight container is removed from the trailers prior to unloading at customer mine sites.

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 Bolloré operation to prepare detailed Emergency Response Plans for potential cyanide releases.

Sodium Cvanide (in briquette form) is transported by road stacked in 6 meter freight containers. No product is transported by rail or air. Sodium Cyanide enters Sénégal through the Port of Dakar.

Bolloré has developed detailed documents to cover emergency response for potential cyanide releases for cyanide transportation within Sénégal and Mali. The scope of this plan is to provide information to all role players (in and external responders) with regards to each responder's role and responsibility who will be involved in the primary stage of an emergency situation. A list of internal and external Emergency Contact telephone numbers is included into the plan. The information is contained within route specific Emergency Response Plan and a Transport Management Plan.

The Transport Management Plan and Emergency Response Plan are based on road transportation of solid sodium from the Port of Dakar to Syama (1641km), Mako (662 km), Yanfolia (1637 km) Morila (1554 km), Sadiola (820 km) and Fekola (916km). The ERP was found to be appropriate for the transportation of cyanide by road on the selected roads.

The plans do make provision for the actions of the Escort Leader and those drivers not directly involved in the accident / incident.

The plans are appropriate for the selected transportation routes and Bolloré considered all relevant aspects of the transport infrastructure. The route evaluation process, route hazard/risk assessment process, and operational experience were used by Bolloré to identify the following likely emergency scenarios:

- Scenario A Vehicle Transport Incident (Roll over involving a vehicle without a spill and container intact)
- Scenario B Vehicle Transport Incident (Roll over with no spill but many other vehicles involved in the accident).
- Scenario C Vehicle Transport Incident (Roll over of vehicle with container damaged resulting in a spill on the ground).
- Scenario D Vehicle Transport Incident (Roll over of vehicle resulting damaged container with a spill on the ground and there is a cyanide victim)



- Scenario E Roll over into a river. (Vehicle falling into river– driver, truck and container submerged in the river).
- Scenario F Vehicle Transport Incident (Vehicle hitting a motor bike resulting in injury).

Clause 6 of the "Plan De Transport De Cyanide De Sodium Vers Les Mines" make reference to the physical and chemical properties of sodium cyanide. This is also covered on page 5 of the Transport Emergency Plan.

Emergency response plans for storage facilities were not developed as cyanide is not stored at an interim storage facility between the Port of Dakar and the mine site destinations.

The Transport Management Plans and Emergency Response Plans include descriptions of response actions, as appropriate for the anticipated emergency situation. External responders identified in the documents, are aware of their role in an emergency.

The ER plan mentions the various emergency responses (internal & external) to the above incidents and sets out their roles and responsibilities. The emergency telephone numbers of the various Emergency Responders available on pages 36 to 38 of ER Plan No. BLX-HSE-MAN-0002 rev 6 dated 7/8/2019.

**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:

Bolloré provided emergency response training to appropriate employees as specified in the ER Plan. The cyanide awareness training is provided over two days (one day of theory and one day for a practical emergency response exercise) once per year at the beginning of every convoy season. All Bolloré drivers, the Convoy Leaders from their service providers, Aices and Arcane and the Transport Manager completed this training. Records of training completed are kept on record and were viewed.

Police and ambulance members attended a mock drill as part of the refresher training. Last mock drill was held on 9th May 2019.

The training records were reviewed and discussions with Bolloré drivers and the escort team confirmed that they have completed the training.

The Emergency Response Plan identifies the specific emergency response duties and responsibilities of personnel for the six scenarios. Descriptions of the specific emergency response duties and responsibilities for Bolloré drivers and the Escort Team are detailed within the Emergency Response Plan. The cyanide training provides additional detail of the responsibilities for each of the specific roles.

Bolloré through Aices, as the Escort Team, maintain a list of all of the emergency response equipment that should be available during the transport route. The equipment is checked weekly and prior to departure. Records of these checks are kept. Three sets of emergency equipment are available and found to be appropriate.

Availability of the transporter's ER equipment confirmed. Cyanide fist aid equipment and Personal Protective Equipment (PPE) verified and quantities found to be adequate.



The PPE at hand include; chemicals suits, full face gas masks, respirators with the appropriate canisters (ABEKP3 type), PVC gloves, Disposal Tyvek overalls, HCN Gas monitors, self contained breathing apparatus, bottles with medical oxygen and regulators, caution tapes and other required equipment as stipulated on the equipment checklists.

Escort Leader confirms that this equipment accompanies the cyanide convoys.

Equipment with that as per checklist verified and found it to be relevant and all available. Equipment is all kept together and locked away.

Emergency equipment is checked before each cyanide shipment and each morning prior to the continuation of the convoy's journey. Escort leader to complete checklists and is required to endorse it as proof that checks were done.

Bolloré subcontracts Aices and Arcane undertook the responsibilities as convoy escort leaders and going with that managing of the convoy on route and act as emergency first responders at the scene of an incident whilst on route. Initial and refresher training (convoy management and dangerous goods training) of drivers is done by Bolloré. .

A formal service delivery contracts between Bolloré and Aices and Arcane in existence and was signed by both the Bolloré Directeur General and Aices Administrateur Generalor. This contracts were reviewed, updated and signed on 19th August 2019.

The contract notes that Bolloré is a signatory of the ICMI code and their service provider (Aices) must comply with the Code's requirements.

The Emergency Response Plan identifies the specific emergency response duties and responsibilities of personnel for the five scenarios. Descriptions of the specific emergency response duties and responsibilities clearly documented.

Bolloré drivers and the escort team received detailed training with regards to the contents of the Emergency Response Plan. HCN gas monitoring device is available and Convoy Leaders have been trained in the use of such equipment. The cyanide training provides additional detail of the responsibilities for each of the specific roles.

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

	X in full compliance with	
The operation is	<ul><li>□ in substantial compliance</li><li>□ not in compliance with</li></ul>	with Transport Practice 3.3

Summarize the basis for this Finding/Deficiencies Identified:

The Emergency Response Plans contain procedures and current contact information for notifying the shipper, the receiver/consignee, external emergency response providers, and medical facilities of an emergency.

The Emergency Response Plans contain a list of all the emergency contact numbers. A similar list of numbers is kept in the Convoy Leader's Vehicle.

Bolloré has procedures in place to ensure the contact numbers are kept current. QHSE Manager is tasked to ensure that internal and external emergency notification and reporting procedures are kept current. Copy of such list kept with Aices.



**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:

No registered spill clean-up company available in Sénégal. Transporter is directly involved with remediation of a fairly large cyanide spill. The clean-up and rehabilitation process of an effected area where a small spill have occurred is the responsibility of the escort leader and his team. Clean-up of an effected area is done under the supervision of the Ghanaian Department of Environmental Affairs.

The Ministry of the Environment's role in an accident is to deploy emergency response equipment to help limit environmental impacts and protect ecosystems. The Ministry of the Environment will coordinate with the National Fire Brigade for a complete clean-up of the contaminated area and disposal of waste for treatment. They will do their utmost to limit the damage to the environment. Clause 18.1 of the Transport Management Plan refers.

Bolloré entered into a joint venture agreement between transporter and the Consignee of the consignment w.r.t the cleanup and disposal of contaminated soil/product. The contaminated soil / product will be removed to the mine site where the waste will be disposed of safely.

The use of sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into dams or rivers, is forbidden. The prohibition is captured in Clause 18.2 of the Transport Management Plan No. BLX-HSE-MAN-0001 Rév. 07 and clause 8 of the Transport Emergency Plan No. BLX-HSE-MAN-0002 rev 6 dated 7/8/2019

No Sodium Hypochlorite, Ferrous Sulfate and / or Hydrogen Peroxide is kept on the Transporter's premises. Ferrous Sulfate in small quantities used to locate traces of cyanide remains after clean-up have been done.

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

X in full compliance with

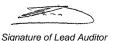
The operation is ☐ in substantial compliance with ☐ Transport Practice 3.5

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Transport Management Plans contain provisions for annual reviewing and evaluating the Plan's adequacy.

The evaluation of the Transport Emergency procedures is required at least once per year after a mock drill was held, after major changes in structures of the road reported, change in outside responders, changes to the transport equipment used, lessons learned from accidents / incidents, new identified risks on route, additional information, observations and other responses or after a significant incident or after a mock drill and/or after conducting annual route survey. When significant or critical changes have been observed or reported, the contents of the ER Plan and relevant working documents and forms are reviewed and rolled out.



Once reviewed, adequacy be tested and thereafter be implemented. Reviews were done and implemented.

Clause 12 on page 16 of 38 of the Emergency Response Plan No. BLX-HSE-MAN-0002 dated and 7/8/2019 requires for an emergency mock drill to be held annually.

Cyanide emergency drill exercise is held yearly. Mock drills are conducted before the start of the cyanide campaign (summer season). All drivers, driver assistants and escort leaders employed in cyanide transportation participate in this exercise. A two-day theoretical training followed by a two-day practical training session held. Attendance registers kept. Any driver or helper who does not participate in these sessions will not be employed in cyanide transport operations.

In addition to the above, an exercise is conducted each year to evaluate the effectiveness of the procedures been put in place. Through this exercise, the customer, supplier, the State structures responsible for the transport of this product (fire fighters, police, gendarmerie, environment, port authority, Arcane and Aices (both escort service providers and Action Security (security service provider). participated. An action plan was established following the exercise and the recommended corrective actions identified, must be followed to improve the system.

A newly recruited driver must be subjected to the theoretical and practical training before carrying out cyanide transport operations.

The trainings last for four days covering two days of theory and two days of practical. The Transport Management Plans and the Emergency Response Plan contains provisions for conducting a review after an incident.

Latest mock drill was held in May 2019. The drill included external emergency responders (police ambulance staff) attended the mock drill exercise. In addition to formal mock drills, the cyanide awareness training includes mock drill exercises. This awareness session was held on 8<sup>th</sup> June 2019. Summary feedback of mock drill conducted on 9th May 2019 was noted.

Bolloré haven't had any cyanide incidents triggering the implementation of the cyanide Emergency Response Plan.

End of report.

Tommie Müller ICMI Lead Auditor

