

***Cyanide Transportation  
Summary Audit Report  
For The  
International Cyanide Management Institute and  
Lamonica Transportes Ltd.***

***Prepared by : NCABrasil Expert Auditors Ltd.  
www.globalsheq.com***

**[www.cyanidecode.org](http://www.cyanidecode.org)**

**June 2021**

The International Cyanide Management Code (hereinafter “the Code”), this document, and other documents or information sources referenced at [www.cyanidecode.org](http://www.cyanidecode.org) are believed to be reliable and were prepared in good faith from information reasonably available to the drafters. However, no guarantee is made as to the accuracy or completeness of any of these other documents or information sources. No guarantee is made in connection with the application of the Code, the additional documents available or the referenced materials to prevent hazards, accidents, incidents, or injury to employees and/or members of the public at any specific site where gold is extracted from ore by the cyanidation process. Compliance with this Code is not intended to and does not replace, contravene or otherwise alter the requirements of any specific national, state or local governmental statutes, laws, regulations, ordinances, or other requirements regarding the matters included herein. Compliance with this Code is entirely voluntary and is neither intended nor does it create, establish, or recognize any legally enforceable obligations or rights on the part of its signatories, supporters or any other parties.

**This report contains 13 pages.**



## **SUMMARY AUDIT REPORT FOR CYANIDE TRANSPORTATION OPERATIONS**

### *Instructions*

1. The basis for the finding and/or statement of deficiencies for each Transport Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.
2. The name of the cyanide transportation operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report.
3. An operation undergoing a Code Verification Audit that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.
4. The Summary Audit Report and Corrective Action Plan, if appropriate, for a cyanide transportation operation undergoing a Code Verification Audit with all required signatures must be submitted in hard copy to:

**International Cyanide Management Institute (ICMI)**  
**1400 I Street, NW, Suite 550.**  
**Washington, DC 20005, USA**  
**Tel: +1-202-495-4020**
5. The submittal must be accompanied by 1) a letter from the owner or authorized representative which grants the ICMI permission to post the Summary Audit Report and Corrective Action Plan, if necessary, on the Code Website, and 2) a completed Auditor Credentials Form. The lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.
6. Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable cyanide transportation company.
7. The description of the cyanide transport company should include sufficient information to describe the scope and complexity of its operation.




## SUMMARY AUDIT REPORT (draft # 0)

Name of Cyanide Transportation Facility: Lamonica Transportes Ltda.  
Name of Facility Owner: Griffi Transportes Ltda.  
Name of Facility Operator: Lamonica Transportes Ltda.  
Name of Responsible Manager: Caio Theodoroviz Isaac  
Address: Rodovia BA 093, 11713 (km 11,5), 43700-000, Simões Filho.  
State/Province: Bahia  
Country: Brasil  
Telephone: (5571) 991-782-556  
Fax: n.a  
E-Mail: ci@grupoergo.com.br

### Location detail and description of operation:

The Lamonica operation is focused on the road transportation of solid and liquid hazardous chemical products for gold mining operations and other types of industrial business, without interim storage. The operation is located at Simões Filho town, Bahia state in Brasil. The operation is a sister company of Ergotrans Transportes Ltd. (Transchemical Transportes e Logistica Ltda.) and operates under the same quality, environmental, occupational health and safety documented management system.



## SUMMARY AUDIT REPORT (draft # 0)

### ***Auditor's Finding***

This operation is:

- in full compliance
- in substantial compliance \*(see below)
- 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.

Auditing Company: NCABrasil Expert Auditors Ltd.

Audit Team Leader: Celso Sandt Pessoa (ICMI qualified lead auditor and transportation qualified TEA (technical expert auditor)), since 2006.

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Website: [www.globalsheq.com](http://www.globalsheq.com)

Names and Signatures of Other Auditors: not applicable

Date(s) of Audit: 18~20/07/2023 (on-site) and 17~18/ October/2023 (off-site).

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 certification audit. I further attest that the certification 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 quality, health, safety and environmental audits.



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Celso Sandt Pessoa

## SUMMARY AUDIT REPORT (draft # 0)

### **1. TRANSPORT: Transport cyanide in a manner that minimizes the potential for accidents and releases.**

#### **Transport Practice 1.1: Select cyanide transport routes to minimize the potential for accidents and releases.**

The operation is:  in full compliance with  
 in substantial compliance with Transport Practice 1.1  
 not in compliance with

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

The operation, designed, documented, implemented and maintains a management procedure for routes identification, evaluation and definition. It was evidenced that the organization performed a risk evaluation for road transportation of solid and liquid cyanide, in accordance with this procedure, related to route evaluation system, which includes periodic re-evaluation of the routes, including the driver's feedback.

Reviewed the route definition and risk evaluation for the following routes/ mining operations: Proguigel Candeias (cyanide producer (liquid and solid) to Barrocas (Fazenda Brasileiro gold mine), to Caeté ( Jaguar gold mine), Conceição do Pará (Jaguar gold mine), Jacobina (pan American Gold mine) and from Proguigel Camaçari (liquid cyanide producer) for the same mining operations. The evaluated routes consider population density, road infrastructure, fauna and flora, surface waters, pitch and grade and weather conditions, among other aspects. The route evaluation and definition procedure is used to define the routes to transport other chemical hazardous products. It was evidenced that the operation identified and evaluated all the risks related to the evaluated routes previously mentioned. Examples are: population density along the route, the infrastructure (asphalt, double or single road, private or public road, gas stations, police stations, weight monitoring stations, emergency stations, communication infrastructure, shadow areas for communication, fauna and flora), the condition of the route (under maintenance, holes, without asphalt), weather conditions (such as wind, fire, rain) and surface waters (rivers, creeks, lakes), fog formation trend, type of bridges, dangerous curves, environmental aspects (desert, mountain, forest) and security related places. Several controls such as speed limit, driver qualification and training, truck maintenance, pre-traveling brief with the driver, planned transport observations, full time monitoring of the truck from a remote station, limited traveling time, were implemented by the organization in order to mitigate the risks related to the selected routes. The selected routes include the transport using national and state roads. It was evidenced that the operation, at least annually, re-evaluates the condition of the selected routes. In the end of each travel, the driver records on the traveling plan his perceptions about the route condition.



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This travel report is reviewed by the operations coordinator and, when necessary, the route plan is updated, and the risks re-evaluated. Track traffic conditions, points allowed to stop and overnight, authorized supply points, places with sharp curves, places with winding and slippery conditions, uphill and steep slopes, bridges and rivers, risk of accidents, police checkpoints, locations requiring special permits for transit, allowed speed for trucks, pedestrian crossing sites, kettle and fauna related risks on road, emergency telephones of the places, population data, weather conditions, communication shadows are considered to select pertinent routes. All comments are reported at travel operation reports). Reviewed road change management related to the transportation of ethylbenzene, in 2023. As previously mentioned, it was evidenced that the organization performed a risk evaluation for road transportation of liquid and solid hazardous chemical products, in accordance with the documented procedures. The risks related to the cyanide (solid and liquid) transportation are already identified. All transportation documentation addresses the hazards and related risks and defines the operational control measures to be taken by the qualified drivers. All permits related to transportation route are kept updated. Lamonica, as a mandatory requirement defined by the Brazilian law, contacts public authorities responsible for the road transportation of dangerous goods (ANTT- Agência Nacional de Transportes Terrestres), the environmental protection agencies, road police, Brazilian Army, CIATOX (Centro de Informação Tóxicologica), the road concessionary, the cyanide producer, in order to obtain official and legal permits to transport solid and liquid cyanide in the proposed routes. The operation will use security escorts when the risk analysis indicates that this should be an operational control during the transport (safety and security). In the selected routes, it was identified that a security escort is not necessary. Related to the use of convoys, this will be dependent of the amount of solid or liquid NaCN to be transported. In some cases, in the reviewed hazardous chemicals products transportation cases, convoys (at least two trucks) were used. Lamonica does not contract any other entity to transport hazardous chemical products.

**Transport Practice 1.2: Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.**

The operation is:  in full compliance with  
 in substantial compliance with Transport Practice 1.2  
 not in compliance with

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

It was evidenced that the operation employees are trained and licensed drivers as required by the applicable legislation for the transport of dangerous products, including solid sodium cyanide.



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The drivers must have a specific driving license, type “E”, the MOPP training course (Movimentação Operacional de Produtos Perigosos) and the NR-23 training course (Norma Regulamentadora # 23, fire management), all in accordance with the Brazilian legislation. Reviewed the driver license, MOPP training course and NR-23 training course for Edgar Assunção dos Santos, among others. The operation has three drivers in conformance with Brazilian legislation to transport chemical hazardous products. This team is already assigned to transport cyanide. All reviewed permits and training courses are valid and within the expiration date. It was evidenced that the operation defined, documented, implemented and maintains an annual training program for the operational team (truck drivers and operational personnel). The operation provided for its operational team drivers, initial and refresh trainings such as use of personal protective equipment, defensive driving (refresh), emergency response plan and cyanide properties (provided by Proquigel Química (cyanide producer) and management (Material Safety Data Sheet). Records of such initial and refresh trainings are retained by the operation and were reviewed during this opportunity. The operation does not contract other entities to transport chemical products, as previously mentioned.

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

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

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

It was evidenced that Lamonica uses trucks, such as Mercedes Benz Actros (6x2), supporting loads up to 60 ton. In the same way, the related trailers are designed and produced by Random (Brazilian OEM/ Original Equipment Manufacturer), all adequate to transport 20’ sea-containers and 20’ iso-containers, with load capacity above 35 ton. According to the Brazilian laws, trucks and trailers must go through an annual technical inspection, which frequencies depends on the age of the truck and trailers (CIV/ Certificado de Inspeção Veicular). In this case, the technical inspection must be carried out annually or every six months, depending on the age of the truck and the trailer. Reviewed the annual technical inspection reports for the following trucks and trailers: RPK0F80+RDB9A75 and PLY6F46+RCY5G88. The operation transports 20’ sea containers, 20’ iso-containers and tank trailers. The cargo weight to be transported is also recorded in the transportation documentation, as demanded by the Brazilian legislation. The cargo weight is verified in the departure of the chemical product producer, along the routes (weight control stations and road police stations) and, in some cases, during the reception of the cargo at the chemical product buyer. Reviewed transportation documentation (DANFE/ issued by the seller) and DACTE (issued by Lamonica, the transporter). The operation does not contract other entities to transport chemical products, as previously mentioned.



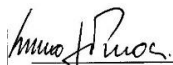
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**Transport Practice 1.4: Develop and implement a safety program for transport of cyanide.**

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

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

All solid chemical products are transported inside a 20' sea-container, that is sealed before departing from the cyanide seller premises. Liquid chemical products are transported inside 20' iso-containers or inside tanker trucks, all specifically designed for this purpose. Iso-containers and tanker trucks are also sealed before departing the seller premises. According to the Brazilian legislation, safety placards (UNO number, safety and environmental pictograms) must be placed in the front of the truck and in the three sides of the sea container or the iso-container and in the three sides of the tanker truck. Evidenced full compliance during the field audit. Before each departure the operation performs a general inspection, which includes the documentation inspection, cargo weight, emergency response resources, protective personal equipment, containers and tanker trailer, truck, anti-shifting locks, communication resources, traceability system, safety signage, among other aspects. The pre-departure inspection is based on an inspection checklist. This inspection is performed every day during the cyanide transportation. Reviewed pre-departure and daily inspection records for transportations performed in 2023. Trucks and trailers are maintained in accordance with a planned preventive maintenance program and performed internally or at approved maintenance shops. Preventive maintenance program, for trucks and trailers, is based on the kilometers (km) used by the truck + trailer. Preventive maintenance activities are performed every 15000 km for trucks and trailers (during warranty). Sea-containers (20') and iso-containers (20') are maintained by the cyanide producer. The operation is not the owner of sea containers and iso-containers. A preventive maintenance and inspection plan were implemented, and records of such activities were reviewed during this opportunity. According to the Brazilian legislation and the operation's policies, the daily work hours is from 5AM up to 10PM, where 12 hours is the maximum work shift within the mentioned range, with a 30' minutes rest every 4,0 hours driving. The drivers must have a 1.0 hour for lunch. Minimum rest time, between journeys, is 11 hours. Twist lockers are installed in the trailers. Evidenced such configurations during the field audit. Also evidenced that such anti-shifting systems are included in the preventive maintenance plan. Social turbulences, storm wind, mud and storm rain, are aspects that could impact the transportation plan, that could be modified or suspended.





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The operation policy related to drug and alcohol use/ abuse is clear and accepted by all internal stakeholders. Monitoring is performed when the trucks are leaving the operation premises and along the route at defined checkpoints (for alcohol) and annually performed during the occupational health control (for other types of drugs). Reviewed records of monitoring performed in 2023. All results were negative. The operation retains records of all above mentioned activities. The operation does not contract other entities to transport chemical products.

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

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

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

**This transport practice is not applicable to the operation's scope. The operation scope is road transportation of solid and liquid hazardous chemical products.**

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

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

*Summarize the basis for this Finding/Deficiencies Identified: (Due to the sensitivity of security issues regarding storage of cyanide, no descriptions of substantial or non-compliance with this aspect of the Transport Practice should be provided).*

The trucks are provided with tracking systems (on board computer, text messages), using online GPS signal (supplied and managed by Sascar Ltd.). The driver is also equipped with a mobile phone. Verified the monitoring system during the field audit. All communication resources are tested before departure from the operation base, time to time with the operation headquarter, with tracker system supplier. Evidenced and tested communication resources during the field audit. Blackout areas are not present in the selected routes. As previously mentioned, all trucks are provided with online GPS trackers, which was tested during the audit.



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The cyanide cargo documentation (DANFE (producer) and DACTE (transporter) = transport waybill) addresses the amount of chemical product being transported. The amount of chemical product being transported is controlled at the seller premise, during transportation (at weight control stations and police control stations) and, in some cases, in the reception at the buyer operation. The cargo documentation (retained by the transporter) includes the following documents: bill of lading (producer (DANFE) and transporter (DACTE)), weight control records, police control records and the product buyer reception control records. The MSDS (Material Safety Data Sheet) is part of the transportation documentation, but it is left at the buyer operation. All reviewed transportation documentation clearly indicates the amount of chemical product being transported. The operation does not contract other entities to transport chemical products.

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

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

The operation is:  in full compliance with  
 in substantial compliance with Transport Practice 2.1  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:\**

**This principle is not applicable to the operation scope because the chemical product cargo is transported straight from suppliers/ distributors to its final destination. During the transport, the truck is monitored 100% of the time (online GPS) and stops, at night, only at pre-evaluated and approved stations along the route. The tracking system also blocks (remote turn-off) the truck engine if something different from the planned script (travel plan) occurs. It is possible to send/ receive text messages from the truck. Evidenced/ tested during the audit at operation headquarter.**



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### **3. EMERGENCY RESPONSE: *Protect communities and the environment through the development of emergency response strategies and capabilities***

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

The operation is:  in full compliance with  
 in substantial compliance with Transport Practice 3.1  
 not in compliance with

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

It was evidenced that the operation developed and documented an emergency response plan (ERP), for the transport of chemical hazardous products by road. The operation also has a contract with Ambipar Response Ltd. (emergency response services provider), which will support the operation in the event of emergencies during transportation of hazardous chemicals. It was evidenced that the operation emergency response plan was developed for the specific circumstances and was verified that the emergency plans are appropriate to the specific chemical hazardous products transportation routes, and transport practices. The risks associated to the selected routes were identified and evaluated and the emergency response plans are focused on the identified and evaluated risks, also considering the available infrastructure and emergency resources available in the selected routes. The operation emergency response plan is applicable for solid and liquid chemical products transportation by road. The emergency response plan is specific to the routes (roads) defined to be used from the sellers to the buyers. The emergency response plan is specific for the transportation resources (truck+ trailer+ tanker) used to transport solid and liquid hazardous chemical products cyanide from the seller to the buyer. It was evidenced that the emergency response plan (ERP) describe the specific response actions that shall be applied to each emergency situation/ scenario, such as accident with fire, fall into a river, cyanide leakage on a rainy day, cyanide intoxication, among other specific emergency scenarios. The ERP is focused on families/ groups of hazardous chemical products. It was evidenced that the emergency response plan describes the roles of several external stakeholders that should be involved in the emergency response, such as road policy, emergency responders (Ambipar) and firefighters, reference hospitals along the routes, road concessionaries, environmental and security authorities.




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

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

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

It was evidenced that the operation provided initial and refresh emergency training for drivers and emergency coordinators, in accordance with the Brazilian laws. The operational team receives theoretical training related to emergencies and practical ones during planned emergency drills. All duties and responsibilities, for each identified emergency scenarios, are addressed in the operational & emergency management procedures, that are part of the approved emergency response plans. The required emergency response resources master list is part of the traveling documentation and checked before each travel. Usual emergency hardware to be available at the truck is: safety glasses, helmets, leather gloves, ear protectors, masks for powder (P3 type) and gases (ABEK1 type), Tychem type overall, fire extinguishers (dry chemical powder), plastic bags, plastic shovel and brush. First aid instructions are available for the driver and is part of the travel documentation (MSDS, DANFE, DACTE). All the Brazilian states have an agency named CIATOX (Centro de Informações Toxicológicas), which contact numbers are addressed in the ERP and shall be contacted, when necessary, during emergency situations in order to provide information about health treatment for impacted persons by a hazardous chemical product. As previously mentioned, there is an emergency kit for the truck driver (which includes the PPEs) and the emergency response resources, transported in the truck. All emergency response resources are inspected before each departure, as well as the driver's emergency kit. Records of such pre-departure inspections are retained by the operation and were reviewed during this opportunity. The operation contracted Ambipar to respond to emergency situations involving hazardous chemical products transportation. Ambipar will play the main role in any emergency related to chemical products, mainly related to the mitigation of all the impacts caused by these products. As previously mentioned, the operation's drivers' documentation also addresses directions to other stakeholders, such as public entities (road administrator, road police, medical resources, firefighters, the product buyer) that could attend the emergency local. All these requirements are addressed in the contract between the operation and Ambipar.



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

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

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

All the necessary contact information with stakeholders (e.g: the chemical product seller (e.g: Unigel (a cyanide producer), the operation headquarters, the chemical product buyer, road police, road administrator, environmental and safety entities)) is addressed at the Emergency Plan. All protocols related to emergency notification and reporting are kept updated and the critical stakeholders to be notified are clearly identified. There were no emergencies related to hazardous chemical products transportation between 2022 and 2023 (last 12 months). The operation is aware about this requirement and already has ICMI's contacts in its contacts master list.

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

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

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

The operation's ERP and Ambipar's ERP addresses responses to environmental related emergencies, depending on the chemical product being transported. Spill clean-up and disposal of contaminated debris and effluents are addressed in such protocols. The usual disposition for solid debris is incineration and for neutralized effluents the disposition will be done in an approved effluent treatment plant. The operation is committed to update its emergency response plan, as well as Ambipar one, addressing emergency responses to environmental emergencies caused by solid and liquid cyanide. No chemical products are allowed to be used to neutralize hazardous chemical products impacting surface waters. The prohibition to use such chemicals is also addressed in the existing contract between the operation and at the Ambipar one.



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

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

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

The Emergency Response Plan is kept updated by the operation through the feedback of real emergencies, emergencies occurred with other transporters, after the realization of mock emergency drills. Last updated was performed in May 2023. The operation plans and performs mock drills annually. One emergency mock drill was performed in the last 12 months (related to ethylbenzene leakage). The report related to the mentioned mock drill was reviewed in this opportunity. Every mock drill has defined planned objectives to be achieved. After the drill, it is reviewed, and conclusions are defined in order to confirm (or not) if the planned objectives were reached or not. Improvement actions plans are defined and implemented, resulting in the update of the Emergency Response Plan. The Emergency Response Plan was found updated at revision dated 11/05/2023.

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#### **Audit team conclusions:**

Based on the sampled evidences, the physical conditions of the site (installations) and the trucks/ trailers/ tankers, in the interviewed personnel and in the reviewed documentation, the audit team concludes that the SHEQ management system is FULLY implemented and maintained in accordance with the International Cyanide Management Protocol for Transporters (June 2021/ pre-operational) for cyanide transport operations (principles 1.5 and 2.1 are not applicable to the operation transport scope). The operation does not subcontract transporters to transport hazardous chemical products.



12/02/2024