Cyanide Transportation

Summary Audit Report

For The
International Cyanide Management Code and
INOVAR Transportes & Logística Ltda./Brazil

www.cyanidecode.org

March 2015

The International Cyanide Management Code (hereinafter "the Code"), this document, and other documents or information sources referenced at 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.
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.
NAME OF CYANIDE TRANSPORTATION FACILITY: INOVAR TRANSPORTES & LOGISTICA LTDA.
NAME OF FACILITY OWNER: TURAZZI TRANSPORTES LTDA.
NAME OF FACILITY OPERATOR: INOVAR TRANSPORTES & LOGISTICA LTDA.
NAME OF RESPONSIBLE MANAGER: IRINEU CARLOS TURAZZI
ADDRESS: AVENIDA FERNANDO CORREIA DA COSTA, 7666. (CUIABÁ)
STATE/PROVINCE: MATO GROSSO
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E-MAIL: CARLINHOS@INOVARTRANSPORTES.COM.BR

LOCATION DETAIL AND DESCRIPTION OF OPERATION:

The INOVAR operation is focused on the road transportation of cyanide for gold mining operations, without interim storage. The operation is located at Cuiabá town (Mato Grosso State, middle west of Brazil) and transports solid cyanide from the Port of Santos (São Paulo State) to a gold mine operation located at the Mato Grosso State (middle west of Brazil). The operation has a SHEQ management system certified in accordance to SASSMAQ protocol, established by the Brazilian Chemical Industry Association. The operation trucks, specifically designed and bought to transport cyanide containers, are remotely monitored (100% during the travel between the port and the final client) and equipped with on board computer. The operation drivers are qualified, based on the Brazilian legislation, to transport hazardous chemical products and also were trained by the cyanide producer.

[Signature]

Luiz Eduardo Ferreira

Inovar Transportes Ltd./ March 2015
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Auditor’s Finding

This operation is:

X in full compliance

in substantial compliance *(see below)

not in compliance

with the International Cyanide Management Code.

During the previous three years certification cycle, INOVAR Transportes & Logística Ltda. did not experience any significant cyanide related incidents nor any compliance problems related to cyanide transportation management.

* 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: Luiz Eduardo Ferreira (ICMI qualified lead auditor and transportation qualified TEA (technical expert auditor)).
E-mail: luizeferreira2015@gmail.com
Names and Signatures of Other Auditors: not applicable
Date(s) of Audit: 16.03.2015 ~ 19.03.2015 (on-site) and 20.03.2015 (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 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.

Luiz Eduardo Ferreira

Inovar Transportes Ltd./ March 2015
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1. TRANSPORT: Transport cyanide in a manner that minimizes the potential for accidents and releases.

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

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:

Was evidenced that Inovar Transportes documented and implemented a procedure to identify and select appropriate and safer routes to transport the cyanide from the port of entrance until the mining operation. Evidenced that Inovar Transportes selected two possible routes (one principal and one alternate) between the incoming port and the mine. Evidenced that the selection of route process considered the population density along the route, the infrastructure (asphalt, double or single speedway, gas stations, policy stations, emergency stations, communication, shadow areas for communication), the condition of the route (under maintenance, holes, without asphalt), weather conditions (such as fog, fire, rain) and surface waters (rivers, creeks, lakes). Records of selected routes were reviewed. Most of the routes are asphalted and only the last 35 Km (way to the mine) are not asphalted. In this last part, the truck is escorted by a vehicle from the mine. Was evidenced that all risks related to the selected routes were clearly identified by Inovar Transportes in the route record (traveling plan). 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 operation in order to mitigate the risks related to the selected routes.

The operation constantly evaluates the condition of the selected routes. In the end of each travel, the driver records, on the traveling plan, his perceptions and findings about the route condition. This travel report is reviewed by the operations officer and, when necessary, the route plan is updated and the risks re-evaluated.

The operation prepares, before each travel, the traveling plan (which is delivered to the driver and a briefing is performed), identifying all the risks and related controls that shall be observed by the driver, including .Track trafficability conditions, points allowed to stop and overnight, authorized supply points, places with sharp curves, places with winding track uphill and steep slopes, bridges and rivers risk of accidents, checkpoints, locations requiring special permits for transit, allowed speed for trucks, pedestrian crossing sites, local animal risk on track, emergency telephones of the places, population data are considered to select pertinent routes.
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It was evidenced by the respective records of training, that drivers are trained in that procedure PRO-22 and consequently in solid sodium cyanide transport. In the selected routes, it was identified that an escort vehicle is only required in the last 35Km of the route, when the truck is escorted by a mine vehicle. Depending on the amount of the cyanide being transported, the operation transports the cargo in convoys, when necessary, contacts the Brazilian Federal Road Policy, the tracking contractor, the road administration contact in order to define the route and avoid potential problems along the selected route. It was noted that Inovar Transportes communicated the Brazilian Federal Road Policy, the road administration authorities, the insurance company (Porto Seguro) and the emergency responders (Suatrans) their roles in an emergency situation involving the cyanide transportation.

All the cyanide transport activity is performed by the operation own drivers and trucks.

**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

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

Was verified that Inovar Transportes only uses trained and licensed drivers as required by the applicable legislation for the transport of dangerous products including solid sodium cyanide.

The driver must have a specific driving license type “E”. Evidenced “Carteira Nacional de Habilitação” – CNH (driving permit) providing that all drivers have this license type “E”. Brazilian law Resolution CONTRAN Nº 168, dated on December 14, 2004 establishes that drivers of dangerous products shall have training in “MOPP – Movimentação Operacional de Produtos Perigosos”. Reviewing pertinent training records it was evidenced that all drivers of Inovar Transportes that conduct NaCN have this training. Beyond this legal requirement, Inovar Transportes established health requirements to the drivers, psychological evaluation, education requirements and experience. Inovar Transportes provides annual refresh training, including first aid and emergency procedures related to cyanide and driver’s operation manual. Reviewed the driver’s permits, the MOPP training records, the occupational health certificate, the psychological evaluation, the drug and alcohol evaluation, the route risk evaluation record and the annual refresh trainings performed in 2014.

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Also evidenced that the cyanide producer delivered specific trainings related to cyanide handling and transport to the operational team. The occupational health certificates, named ASO, were reviewed and found duly established. The psychological evaluation AP’s were reviewed and found that are duly established. Also evidenced that the drivers received a specific refresh training on the routes (main and alternate) that is used to transport cyanide (route training) on September 02, 2014.

*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:**

It was evidenced that Inovar Transportes uses five trucks for transportation of solid sodium cyanide as follows: Two trucks are Scania model 360, one is Scania model G440, one truck is Mercedes Benz 2646 and the fifth is an Iveco Stralis 740S. The maximum load capacities are: Scania models G360 maximum load capacity 30 ton, Scania model G440 with maximum load capacity 54 ton), Mercedes Benz 2646 with maximum load capacity 54 ton and Iveco Stralis 740S maximum load capacity 54 ton. It was evidenced that the said trucks are licensed as required by Brazilian legislation to transport dangerous products. The trucks were inspected by a public authority in order to be approved to transport such kind of products, as required. Was evidenced that Inovar Transportes implemented preventive maintenance programs, as required. Before loading the cargo container, the driver reviews the transportation documentation in order to verify the cargo weight and confirm that the truck is capable to transport it. According to Brazilian transport legislation, there is a maximum load capacity allowed per truck to transit in the roads. There are controls points along the route to verify the cargo weight (weight stations) and the cargo documentation, by the public authorities. Records of periodic inspections were reviewed and provided evidence that only use equipment designed and maintained to operate within the loads it will be handling the operation uses its own drivers and equipments and do not subcontract nobody.

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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:

Was evidenced that Inovar Transporters have handling and inspection procedures as necessary to ensure that the cyanide is transported in a manner that maintains the integrity of the producer’s packaging and during the audit procedures were reviewed and it was found the proper implementation thereof inspection records were checked and provided evidence that such inspections were carried out as required. Equipment operators were interviewed and provided evidence of compliance with this provision. The producer cyanide boxes are transported in certified containers that are sealed after the loading activity at Brazil Santos terminal (Port of Santos). The container is unsealed when arrives at the mine. Evidenced that Brazilian Invoice named “NF -Nota Fiscal” refers seal number and that the checklist issued by the driver also refers the seal number and the pertinent traceability is ensured. According to the Brazilian legislation, the truck shall have, in four sides, standard placards/ signage, indicating the nature of the chemical product being transported. The presence of such placards/ signage is verified before each travel and the results are recorded in specific check list. Was evidenced during the field audit that the trucks have the required placards/ signage.

Inovar Transportes defined and documented a vehicle inspection program of the truck before each journey, including the inspection of the truck, the inspection of the emergency resources, the inspection of the communication and tracking system, the inspection of the tachograph, the inspections of the PPE- personnel protective equipment, the verification of the driver and cargo documentation. Was verified that Inovar Transportes implemented an effective preventive maintenance program for its trucks in accordance with Scania, Mercedes Benz and Iveco (truck producers) requirements. The preventive maintenance is performed by a qualified Scania dealer - Rota Oeste, by a qualified Mercedes Benz dealer - Rodobenz - and by a qualified Iveco dealer – Torino. Inovar Transportes defined a maximum driving time of 12 hours, including one hour for lunch and a 15’ rest every 4,5 hours of driving. The driver is not allowed to drive at night. The working hours is controlled through the remote tracking station.

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The truck is specifically designed to transport containers and it has pin lockers that are inspected by the driver before each journey, and prevent the containers from shifting. In accordance to the operation safety policies and the driver’s operation manual, in the event of stormy or hard rain, wind conditions, ice rain, the transport activity shall be stopped or even not allowed to begin.

Inovar Transportes designed and implement a drug & alcohol policy, accepted by all drivers, in which all the drivers before the beginning of a journey pass through an alcohol detection test and annually, during the occupational health monitoring program, the drivers pass through a drug detection test. Evidenced records of alcohol test duly implemented as required. Evidenced the alcohol test during the field audit and the annual drug detection test records (as previously mentioned)

Was evidenced that Inovar Transportes defined and implemented a process to manage all records related to its activities. All requested management records were promptly retrievable and are adequately maintained by the operation.

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

- 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 scope. The operation scope is road transportation.

*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:** (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).

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The transport vehicle is provided with tracking systems (on board computer), using GPS signal (supplied by Trucks Control – Serviços de Logística Ltda and Onix Sat Rastreamento de Veículos Ltda). The driver is also equipped with a fast dialing mobile phone (five lines). Evidenced during the field audit duly implemented. The communication system (GPS, mobile phone, radio) is tested before each travel, and periodically checked during the trip. Evidenced inspection records duly established and maintained as stated.

The tracking system has no blackout areas. The truck is monitored 100% of the time, by a remote control station, by the operation headquarters and the tracker provider.

The operation implemented a chain of custody records management, according to the Brazilian law. The documentation is verified prior the transportation and before the unloading at the mine operation. The transport documentation clearly identifies the amount of cyanide being transported and the product MSDS is part of this documentation.

During the field audit, the adequacy of this procedure was evidenced.

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 not in compliance with Transport Practice 2.1

in full compliance with

in substantial compliance with

Summarize the basis for this Finding/Deficiencies Identified:

This principle is not applicable to the operation scope because the cyanide cargo is transported straight from the entrance Port to its final destination, the mining operation. During the transport, the truck is monitored 100% of the time and stops, at night, only allowed 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. Verified the track system records as well as the tachograph records.

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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.

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:**

Inovar Transportes has two Emergency Plans. The first one was prepared by Suatrans COTEC named as "Plano de Atendimento Emergencial para o Transporte Nacional de Produtos Perigosos" revision 03 and dated September 21, 2011. The other one was defined and documented by Inovar Transportes itself named as "Manual do Motorista – PAE – Plano de Atendimento a Emergências para Situações no Transporte de Cianeto de Sódio" revision dated December 10, 2014. Was evidenced that Inovar Transportes Emergency Response Plans were developed for the specific circumstances and was verified that the emergency plans are appropriate to the specific cyanide 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 resources available in the selected routes. Was verified that the plans are specific for the transportation of solid cyanide. Was noted that the plans are specific for the road transportation of cyanide, by truck. The plans are specific for the truck configuration being used to transport the cyanide (flat platform truck, with pin lockers, specifically designed to transport metallic sea containers). The plans describe the specific response actions that shall be applied to each emergency situation, such as accident with fire, fall into a river, cyanide leakage on a rainy day, among other emergency scenarios. Was evidenced that the Plans describe the roles of several stakeholders that should be involved in the emergency response, such as road policy, emergency responders and rescuers, first aid stations along the route, reference hospitals, and environmental authorities.
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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:

Was evidenced that Inovar Transportes provided emergency training for drivers, emergency coordinators, emergency response members. Evidenced records of emergency response trainings duly established and maintained. Was evidenced that both Emergency Plans - PAE named as "Plano de Atendimento Emergencial para o Transporte Nacional de Produtos Perigosos" revision 03, dated September 21, 2011 and the other one named as "Manual do Motorista – PAE – Plano de Atendimento a Emergências para Situações no Transporte de Cianeto de Sódio" revision dated December 10, 2014, include the specific emergency response duties and responsibilities of personnel. Annually, Inovar Transportes provides initial and refresh training related to emergency procedures. Inovar Transportes defined the required emergency equipment that shall be available at the truck (emergency kit), such as face mask, gloves, flashlight, signage, fire extinguishers (ABC type), rubber boots, safety helmet and glasses, overall Tyvec, antidotes, brush, cords, MgO powder and plastic blankets. The emergency kit is inspected before each travel. All emergency related materials are listed in the Driver's Manual and are checked before each travel. The emergency kit is inspected before each travel. Evidenced records of emergency kit inspections duly established and maintained as required.

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:

Signature

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Was evidenced that "Manual do Motorista – PAE – Plano de Atendimento a Emergências para Situações no Transporte de Cláquete São Sódio" issued by Inovar Transportes dated December 10, 2014, defines the methodology for notification of appropriate stakeholders in the event of a cyanide release or exposure during transport. It is available to all entities that may need to use them, and therefore they are included in the Emergency Response Plan – PAE. The entities requiring notification are clearly identified in the Emergency Response Plan – PAE as having designated roles in the response, such as road policy, the cyanide producer, the cyanide buyer, hospitals, first aid stations along the route, environmental agencies, emergency responders, Brazilian chemical association. Emergency contact information are also available at the truck doors (stickers) and at the truck chassis (stickers also). This information is kept updated, as evidenced in the field audit.

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:

Was evidenced that both Emergency Plans – “Manual do motorista” – PAE issued by Inovar Transportes dated December 12, 2014 and "Plano de Atendimento Emergencial" issued by SuaTrans clearly define the remediation procedures that shall be applied in the event of cyanide related emergencies. The disposition of contaminated residues is defined in accordance Brazilian Environmental Laws. Additionally Inovar Transportes has contract with SuaTrans, a commercial chemical remediation company to provide this service to the transporter which is clearly identified at Inovar Transportes Emergency Response Plan, so SuaTrans can be activated as soon as practical. Was evidenced that the mentioned plans clearly define that chemical products, such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide, are prohibited to be used in the event of solid cyanide releases in surface waters along the route.

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

- X in full compliance with
- in substantial compliance with
- not in compliance with

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

Inovar Transportes defined and documented that annually reviews and revisions (if necessary) must be done in their emergency response plans (including the specific one, provided by SUATRANS). Also, on an annual basis, simulation activities related to their emergency plans must be planned, including one specific exercise in conjunction with the emergency responder expert, SUATRANS.

Was evidenced that Inovar Transportes plans and implement mock emergency drills, related to their emergency response plans and in conjunction with the emergency responders expert. Reviewed emergency drills performed in conjunction by INOVAR emergency brigade and SUATRANS emergency respond team, including the participation of external stakeholders, such as Brazilian Federal road policy, road administration rescue team and local firefighters, performed in 2012, 2013 and 2014.

Inovar Transportes emergency team, after the emergency drills, reviews the drill result and, when applicable, the pertinent emergency plan is revised and updated. During the audit the emergency drill reports provided evidence that this procedure is duly implemented.

Luiz Eduardo Ferreira

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