

# INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

## Cyanide Transportation

## Summary Audit Report Form

# For The International Cyanide Management Code

## Concórdia Transportes

1<sup>st</sup>. Recertification Audit dates: September 24<sup>th</sup> ~ 26<sup>th</sup>, 2012

Auditor: Julio Monteiro (LA)

JMAQ - Julio Monteiro Auditores da Qualidade - Rio de Janeiro, Brazil

Name of Cyanide Transportation Facility: Concórdia Transportes Rodoviários Ltda.

Name of Facility Owner: Concórdia Transportes Rodoviários Ltda. Name of Facility Operator: Benedito Teles and Rogério Leodegário

Name of Responsible Manager: Leandra Pessoa Alves

Address: Av. Raul Seixas, s/n. Post Box 034

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#### <u>Location detail and description of operation:</u>

Concórdia Transportes Rodoviários S.A.is a Road Transportation Company, working in major volume with hazardous liquids from Camaçari Petrochemical Complex with destination to several regions of Brazil. The Concórdia business focus is Container Transportation, transporting loads from Salvador Port to the Camaçari Petrochemical Complex and Salvador Metropolitan Region.

Concórdia was founded in 1979 and located initially in a small facility in Cajazeiras, a neighborhood place at Salvador City, with only 4 employees. Now, Concórdia is located in the city of Dias D'Àvila, near to Camaçari Petrochemical Complex, where approximately 80% of the company clients are situated.

All Truck Drivers have the MOPP training (Movimentation and Operation of Hazard Products), with refresh events in each two years period. As defined in the Company Quality, Security and Environment Policy, most of investments are related to training needs and qualification in health and safety, Environmental and Quality issues, awards and labor incentives to all employees. Concórdia believes that they are the most important component that daily presents itself to the Client, driving the equipments (trucks and containers), and represents the most important Company assets. Moreover, these Employees are exposed to the risks in the transportation activities and to the risks of Client's processes (Chemical and Petrochemicals Industries).

High Technology, environmental monitoring, all trucks satellite tracking and monitoring, permanent training and captive fleet are in place: more than 300 last-generation specifics equipments for chemical transportation including semi-towing tanks, containers port and grain trucks.

Concórdia has a fleet with preventive maintenance and no older than 3 years-old average age.

Concordia is a member of a selected team of companies that have partnerships firmed with ABIQUIM (Brazilian Association of Chemical Industries) and with implemented Accountability Program since 2001.

In 2001, Concórdia joined a pilot project for the implementation of "Eye Alive in the Road" Program. Nowadays, Concordia is part of the workgroup of this program, with monthly participation in meetings and discussions to improve the program.

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Concórdia operations focus the respect to Environment, Health and Safety.

The proper destination of effluents has determined the facility to provide its own collecting and primary treatment station, properly registered and approved by the Environmental Authorities.

In the pursuit improving services and enforces quality procedures, Concórdia was obtained the recertification in the ISO 9001:2008 standard and has maintained this Certification since then.

Aligned with the new world order regarding environment preservation, in January 2003 Concórdia was evaluated and approved by SGS Brasil – Industrial Services Division in the SASSMAQ (SHE and Quality Evaluation System) program, also coordinated by ABIQUIM.

Concerns with Environment led Concórdia to acquire an Insurance Policy for environment damages, reinforcing the portfolio of the ones already existing.

The adaptation to new technologies is permanent, as traceability and satellite monitoring. The investment in last-generation road equipments is a permanent issue. The process of continuous improvement results in new management practices and innovation of the fleet.

Concórdia Transportes Rodoviários was certified by ICMI in April 2009, so this is the 1<sup>st</sup>. Recertification. See www.cyanidecode.org.

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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.

This Operation of Cyanide Transportation has not experienced compliance problems during the previous three-year audit cycle.

Audit Company: Concórdia Transportes Rodoviários Ltda.

Audit Team Leader: Julio C. M. Monteiro - email: jmaq@ig.com.br

Other Auditors: Marcelo V. Monteiro (Reviewed Auditor)

Date(s) of Audit: 24th. ~26th. September 2012

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 environment audits.

Lead Auditor Signature:

CARTÓRIO 10° OFÍCIO DE NITERÓ! LIA GAVIÃO PEIXOTO, N° 148 - LOJA - ICARAÍ - NITERÓI - RJ - TEL.: (21) 2610-51

Reconheço por SEMELHANÇA a firma de: JULIO CESAR MACEDO MONTEIRO.

Niterói, 16/01/2013. Valor:R\$6.11 391037 SL02 Em test (10) da Verdade, Conf. por:

Sant'Ana da Silva-Substituta-

Date: September 2012.

ELO DE FISCALIZA

CONCÓRDIA TRANSPORTES RODOVIÁRIOS Ltda.

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Lead Auditor Signature

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

<u>Transport Practice 1.1</u>: 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:

Concórdia has presented a formal and controlled procedure which establishes that all transport routes must be previously evaluated and selected by an Expert Driver and approved by the Client.

In his selection process, the Expert Driver must considers inclinations (pitch and grade), curves, robbery risks, traffic conditions, distances, next gas stations, safety aspects in case of accidents involving communities, water bodies and wildlife.

Population density, signaling, general infrastructure, fog, needing of escort or other additional safety measure, police stations and response emergency agencies must also be considered in the selection. During of routes selection the Procedure takes into account the input from Communities, Governmental and Non-Governmental Agencies.

They also contribute with suggestions to develop risk management measures, as evidenced in the route maps. Periodic reviews of existing routes are undertaken and a risk review procedure is maintained for this requirement considering the existing transport routes (and any additional alternative) are included within the overall transport management plan.

There is a Community Program "See Inside" ("Ver de Dentro" in Portuguese), conducted by PROQUIGEL in order to introduce the Company and its process to the Stakeholders. many trainings and exercises have been conducted including the Police, Environmental Department, outside responders and Company Representatives participations.

A general training was carried out in July 2012 regarding of Mock Drill – Transportation Emergency – Solution Cyanide – Leakage of Cyanide Solution after Trip Inspection 2 / 2 hours of Concordia Driver, with contamination of a Community member victim. Participants: Yamana Gold, Proquigel Química and Concordia Transportes. A specific DVD was produced with all the steps and procedures taken during this simulation.

A Procedure sets that in case of utilization escort or other additional safety or security measures and after the Expert Driver confirms the real need or after a Client request, the Sales Manager shall contact the client and renegotiate the contract.

External responders, Medical facilities and Communities are formally aware of their roles during an emergency. A flowchart for emergency attendance and emergency telephone list are available to the Stakeholders.

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Concórdia Transportes does not subcontract the cyanide transport and does not handle cyanide. All vehicles used for the transport of Sodium Cyanide are property of Concordia Transportes and the products handling is made by the Producer of Cyanide (Proquigel) during the product loading and when it arrives at the destination. All ground Operations are done by the Customer (Operation Mine).

<u>Transport Practice 1.2</u>: Ensure that personnel operating cyanide handling and transport

equipment can perform their jobs with minimum risk to communities

and the environment.

X in full compliance with

The operation is in substantial compliance with Transport Practice 1.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All the escort needs or other additional safety measurements are evaluated based on the hazards of the selected route in according to the specific procedure. The selected route is informed to the risk management Company named SERVIS that monitors the trucks path by satellite. In case of any emergency, this Company starts the Emergency Response Plan and notifies the agencies and stakeholders in order to mitigate the consequences.

The Truck Drivers are trained by the Company about the risks of products as well as in the emergency response.

Tanks are specifically designed for the Cyanide Transportation and a preventive maintenance program for trucks and tanks are in place. Records are available to demonstrate that both initial and annual refresher training is undertaken, with accreditation documents provided to all personnel upon successful completion of the training.

The Program "Keen eye on the road" ("Olho Vivo na Estrada" in Portuguese), created by ABIQUIM – Chemical Brazilian Association), supports the revisions of routegrams by fulfilling the specific form for this program, where the driver must report unsafe behavior of other Drivers during the transportation process.

During this Recertification assessment there are 80 trained Drivers to make cyanide transportation.

A Training Program for the Drivers defines an annual training need matrix according to operational tasks and positions. This matrix was evidenced by the Auditor, as well as the compliance of Drivers interviewed.

The procedure also defines that any training lasting more than 4 hours must have their efficacy evaluation performed.

The Drivers training needs are based in tasks and positions and includes both cyanide and transport of hazardous materials. Concórdia also has an Internal Safety Program that possesses an internal program with awards for achievement of objectives and goals.

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

X in full compliance with

The operation is in substantial compliance with Transport Practice 1.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The requirements for the acquisition of new vehicles and equipments are ruled by the Acquisition of Vehicles and Equipment Transport Products procedure, which establishes that the vehicles and equipments must comply with Brazilian Legislation and Standards (Resolution Nr. 211 dated 13/Nov./2006).

The Maintenance Program is formally described in internal procedure and includes truck, container and tanks. A Procedure Programming Applications for Customers request is managed inside the Company. The equipments are defined according to the features of the product to be transported: material density, appropriated material for transportation, type of equipment. In case of cyanide, rafts and boats are not used and the transport is done exclusively by road.

<u>Transport Practice 1.4</u>: 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:

The integrity is ensured by using a seal. There is an Operational Instruction that requires a daily check using a specific checklist. The container with solid cyanide must be sealed at Proquigel. The integrity of the product Cyanide in solution is guaranteed by the Expedition of Solution Cyanide procedure. The signaling is regulated by Brazilian Legislation and is checked before transport through a check list.

There is a Preventive Maintenance Plan implemented for trucks, containers and tanks.

After loading the Cyanide should be checking if the load is complete, without damages or leaks. This check is filled out by the Driver in a specific check list that must be attached to the trip Map. These records documented report the whole story of the trip.

A procedure to prevent the load displacement and a guide to modify or suspend the transportation if conditions changes such as severe weather or civil unrest are maintained and was verified by the Auditor during the assessment. The updated Driver Manual guides him according to the new Brazilian Legislation. Evidences were found at Logbook and in the Tachograph Discs. The Programme to Prevent Alcohol and Drug addiction - PAD, is intended to produce thoughts and actions that contribute positively to the understanding of the problematic drugs and alcohol addiction and the associated consequences, as well as reducing the risk factors that encourage the use, increasing protective factors for all Employees, Directors and Stakeholders of Concórdia, described

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Lead Auditor Signature

in procedure NA.036 - "Program Prevention of Alcohol and Drug Use" Rev. 03 of 10/08/11.

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

and air.

X in full compliance with

The operation is in substantial compliance with

Transport Practice 1.5

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All vehicles used for transportation of Sodium Cyanide are company-owned and the product handling is done by the producer of Cyanide (Proguigel) during charging and during arrival at destination. All ground operations are performed by the Client (Operation Mine).

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

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.)

The Company has a contract to supply satellite trackers with AUTOTRAC and SASCAR. Communication using Cell Phones Technology is also used. The systems described in the Satellite Tracking operational instruction states the steps to be followed by the Driver in case of blackout areas during the trip. This orientation is part of the Driver Manual in the topic Security Policy. According to the "Product Identification and Traceability" procedure, the shipments progress is monitored by Software, identified in the Fiscal Document Number and ACT (Authorization for Loading and Transportation). ISO Tanks are adequate to the Cyanide transportation according to the "Identification and Standardization of Vehicle procedure."

The Concordia has 100% traceability its fleet by GPS / Telephone. The Agreement provides for Concordia monitoring through GPS / phone during the whole trip. All vehicles used for transportation of Sodium Cyanide are company-owned and the product handling is done by the producer of Cyanide (Proquigel) during charging and during arrival at destination. All ground operations are performed by the Client (Operation Mine).

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2. INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and

interim storage sites to prevent releases and exposures.

<u>Transport Practice 2.1</u>: 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:

Concordia Transportes does not stock cyanide in any of its facilities.

3. EMERGENCY RESPONSE: Protect communities and the environment through

the development of emergency response strategies and capabilities

Date: September 2012.

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:

Concórdia takes total accountability for the general management of the sodium cyanide transportation activities including Emergency Response Plan in accordance with the relevant Brazilian Statutory Authorities.

It has implemented a document "Emergency Response Plan", which informs the MSDS that must be consulted in case of emergency in the transportation. In this document, besides the presentation of the substance chemical form all information about the product is contained.

See below the chemical forms of presentation Sodium Cyanide:

- Sodium Cyanide Solution: UN 1935;
- Sodium Cyanide-Solid: UN 1689.

This Plan was based and reviewed according to the route maps and its changes. It contains many scenarios and actions that the driver shall take.

The roles of outside responders, Medical facilities or Communities in Emergency Response Plan are formally identified and they are aware of these roles.

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<u>Transport Practice 3.2</u>: Designate appropriate response personnel and commit necessary

resources for emergency response.

X in full compliance with

The operation is in substantial compliance with Transport Practice 3.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The duties and responsibilities are listed in a documented Emergency Response Plan. Emergency Response Team training is provided by a combination of internal personnel, accredited external trainers and participation in mock drill exercises, planned According to the Annual Training Plan.

Every truck has an emergency set that is periodically checked to ensure compliance in accordance with the Maintenance Plan.

There is an Emergency Vehicle (Brigade Car) that has all necessary items in case of emergency.

A specific Client Proquigel procedure establishes the responsibilities, actions, human resources and support materials in case of emergency during the transportation, by managing the risks in order to mitigate the effects on the community, environmental and public property, according to Brazilian Legislation.

The Concórdia has a contract with emergency Companies describing the necessary services in case of emergency.

<u>Transport Practice 3.3</u>: 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:

A Procedure describes all possible scenarios and respective actions and contacts. A contact list is available to the outside responders and stakeholders. Concórdia maintains a dedicated emergency telephone number which reports directly to the Proquigel Emergency Central Room.

Internal and external emergency notification and reporting methods are kept updated by a specific Documents Control procedure.

There is a Flowchart "FNA.028 Annex 01 – "Flowchart to Assist Emergency", describing how to proceed in case of an emergency.

Evidences were available of Composition Scheme for Relief and their assignments whose responsibility is to the group of Attendance, Group Control Field (Coordination and Firefighters) and Group for Assistance to Media.

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<u>Transport Practice 3.4</u>: 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:

The Emergency Response Plan contains requirements for handling, recovering, treating, neutralization and cleaning for a wide range of liquid and solid cyanide scenarios associated with both road and rail transportation. This includes specific procedures relating to the use of cleaning chemicals for both surface water and underground water scenarios.

Collection and proper disposal of contaminated media, prohibition of using of some chemicals to treat cyanide that has been released into surface water are also defined in a procedure. Procedure prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water.

<u>Transport Practice 3.5</u>: 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:

A Master Plan provides annual review and evaluation of the Emergency Response Plan and procedures adequacy. In this Audit was possible to verify that fact.

Beyond the Mock Drills program, reports are generated in case of emergency, including actions plans that are evaluated based on the results. The items Attendance Time, Emergency Response and Environment issues are valued at a graduation and the plan is revised if necessary. The Master Plan procedure establishes safety's guidelines adopted by the Concordia for the transport of the products. A procedure establishes of as it is made the control of revisions and updating of the several procedures adapted by the Company, when necessary. The Corporative Plan sets a weekly meeting to discuss safety performance issues. All nonconformities identified demand the opening of a Nonconformance Report for the respective and appropriate treatment if they occur during the simulation.

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