

# INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

# Cyanide Transportation

# Summary Audit Report Form

For The International Cyanide Management Code

## Concórdia Transportes

Audit dates: 22th~23th April 2009

Nosa Certification Authority, Brazil

CONCÓRDIA TRANSPORTES Name of Facility

Signature of Dead Auditor

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 AlvesAddress: Av. Raul Seixas, s/n. Post Box 034State/Province: Bahia / Dias DávilaCountry: BrazilTelephone: 55.71-3625.7400 Fax: 55.71- 3625.1076E-Mail: Leandra@concordiatransportes.com.br
Location detail and description of operation:
Concórdia Transportes is a road transportation company, working mainly with hazardous liquids originated from Camaçari Petrochemical Complex with destination to several regions of Brazil. Concórdia has enlarged its business focusing on container transportation from Salvador Port to Camaçari Petrochemical Complex and Salvador Metropolitan Region.  Concórdia was funded in 1979 and has its facility currently installed in Dias D'Ávila city, close to Camaçari Petrochemical Complex, where approximately 80% of its clients are located.  All truck drivers are qualified under the MOPP(Handling and Operation of Hazardous Products) training and refreshing is performed each two years. As defined by company's Quality, Security and Environment Policy, most of investments regarding training, qualification in Health, Environment and Quality, awards and labor incentives is directed to these employees, because they are the big fraction that presents itself daily 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, environment monitoring, satellite tracking and monitoring, permanent training and captive fleet are available: more than 300 last-generation specifics equipments for general chemical transportation, including semi-towing tanks, containers port and grain trucks. Concórdia's fleet has a preventive maintenance plan implemented and is, on average,
less than 3 years-old.  Concórdia has partnerships signed with ABIQUIM (Chemical Industry Brazilian Association) and Responsible Performance, a social program signed since 2001.  In 2001, Concórdia joined a pilot project to implement the "Olho Vivo na Estrada" (Careful Eye on the Road) program. Nowadays, Concordia is part of the workgroup of this program, with monthly attendance 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 initial treatment station, properly registered and approved by the Environment Department.

In the pursuit of improving services and reinforce quality procedures, Concórdia was granted the ISO 9001:2000 Certification in 2000 and has been recertificated since then. Aligned with the new world order regarding environment preservation, in January 2003 Concórdia was recommended by SGS Brasil – Industrial Services Division for 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 policies existing.

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

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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.

\* 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.

Dates of Audit: 22th~23th April 2009

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.

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

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#### 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:

Concórdia has presented a formal procedure that establishes that all transport routes must be previously evaluated and selected by an expert driver and then approved by the client.

In his selection, the expert driver must considers inclinations (pitch and grade), curves, risk of assault, traffic conditions, distances, gas stations, safety aspects in case of accidents involving communities, water courses 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 the route selection the procedure considers the inputs 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 documenting this requirement for existing transport routes (and any additional) is included within the overall transport management plan.

There is a community program "Ver de Dentro", conducted by PROQUIGEL in order to present the company and its process to the stakeholders.

Several trainings and exercise drills have been conducted including the Police, Environmental Department, Outside Responders and Community Representatives.

A general training was carried out in 25<sup>th</sup> April 2008 regarding Cyanide and its risks, involving the Concórdia's Board of Directors and the operational team. During this training doubts and relevant information were considered.

A procedure establishes that in case of 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 lists are available to the stakeholders.

Concordia Transportes does not subcontract the cyanide transport and does not handle cyanide. The emergency response companies were trained together with Proquigel and Concordia on the Cyanide Code requirements.

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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 Ti

Transport Practice 1.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Needing of escort or other additional safety measure is evaluated, based on the hazards of the selected route, according to a procedure. The selected route is informed to the risk management company SERVIS, which monitors the trucks via satellite. In case of any emergency, this company will start the Emergency Response Plan and notify the agencies and stakeholders in order to mitigate the consequences.

Truck drivers are trained by the company about risks of products and emergency response.

Tanks are specifically designed for the cyanide transportation and a preventive maintenance program for trucks and tanks is 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.

A community program "Olho Vivo na Estrada" (Careful Eye on the Road), created by ABIQUIM – Chemical Brazilian Association) supports the reviews of routegrams by fullfilling of specific form, where the driver must report unsafe behavior of other drivers along the transport.

There are 39 drivers trained and qualified to transport cyanide and their licenses are monitored by a software.

A training program defines the annual training according to operational tasks and positions. This matrix was evidenced by the auditors, as well as the compliance of the drivers interviewed.

This procedure also defines that any training longer than 4 hours must have its effectiveness evaluated.

The training for the drivers is based in tasks and positions and includes both cyanide and transport of hazardous materials.

Concórdia also has an Internal Safety Program, with rewards for safety goals and objectives.

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 a procedure which establishes that the vehicles and equipments must comply with Brazilian Legislation and Standards ("Resolução No. 211, de 13 de Novembro de 2006"). The legislation defines the load and

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size limits for vehicles and establishes that the capacities must be checked at the destination point. A maintenance program is formally described and includes trucks, containers and tanks and was evidenced in service reports.

A procedure defines how a customer request is managed inside the company. The equipment is defined according to the features of the product to be transported: material density, appropriate material for transportation, type of equipment. In case of cyanide, rafts and boats are not used and the transport is performed 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 where the daily checking is requested, using a check list. The container with solid cyanide must be sealed at Proquigel.

The integrity of the product in liquid state is ensured by a procedure. After cyanide is shipped, it must be verified whether the load is complete, without damages or leaks.

The signage is regulated by the Brazilian Legislation and its checking prior to the transportation is requested in a check list.

There is a preventive maintenance plan implemented for trucks, containers and tanks.

Vehicle inspections prior to each departure/shipment and limitations on operator or drivers' hours are requested in a procedure and a guide, respectively and their records were found in compliance.

A procedure to prevent loads from shifting and a guide to modify or suspend transportation if conditions such as severe weather or civil unrest are encountered were found by the auditors.

There is a theatre program in place in order to aware the employees about drugs and a random monitoring (Alcohol Breath Tester and Blood Analysis) for all drivers.

Records are retained after an employee dismissal and periods of retention are established in procedures.

<u>Transport Practice 1.5</u>: 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: Not applicable, as Concordia Transportes works only with road transportation.

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<u>Transport Practice 1.6</u>: 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.)

The company has a contract for supplying of trackers via satellite with AUTOTRAC. Communication using mobile phone technology is also used. For vehicles transporting cyanide, a communication test is performed prior to each departure, as described in a specific procedure. According to a procedure, the progress of shipments is monitored via software, identified by its Fiscal Document Number and ACT (Authorization for Loading and Transportation).

100% of Concórdia's fleet is monitored by GPS/ Telephone during the transport.

The process of inventory is formally described and there is no transfer of cyanide from one vehicle or vessel to another or a change of vehicle operator. Inspection of locks is performed daily by the driver. The ACT (Authorization for Loading and Transportation) issued by Concordia Transportes is signed by the client at the arrival of the transporter, confirming the amount of product after weighing.

ACT (Authorization for loading and transportation) and weighing-machine ticket indicate the amount of cyanide transported and the Material Safety Data Sheet is checked as part of driver's check list.

Concordia Transportes does not subcontract the cyanide transport and does not handle cyanide.

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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:

Not applicable. Concordia Transportes does not store cyanide in any location.

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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:

Concordia takes total accountability for the general management of the sodium cyanide transportation activities, including emergency response in accordance with Brazilian Legislation. There is an implemente Emergency Response Plan, based on the selected transportation routes, physical and chemical form of cyanide, method of transport, infrastructure and design of transport vehicle.

This Plan was based and revised according to the route maps and its changes and comprehends all possible emergency scenarios. A flowchart describes how to proceed in case of an emergency. The roles of outside responders, medical facilities or communities in emergency response procedures are formally identified and they are aware of these roles.

Transport Practice 3.2:

Designate appropriate response personnel and commit necessary resources for emergency response.

X in full compliance with

The operation is

in substantial compliance with

Transport Practice 3.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The duties and responsibilities are listed in a document, part of 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.

Each truck has an emergency set and its periodical checking is ensured by the Maintenance Plan.

There is an Emergency Vehicle equipped with all items necessary in case of emergency.

A procedure, from the client PROQUIGEL, establishes the responsibilities, actions, human resources and materials in case of emergency during the transportation, by managing the risks in order to mitigate the effects on the community, environment and the public property, according to the Brazilian Legislation.

The Concórdia has contracts with emergency response companies describing the necessary

services in case of emergencies.

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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:

A procedure describes all possible scenarios, respective actions and contacts. A contact list is available to the outside responders and stakeholders. Concórdia maintains a dedicated emergency telephone number which reports direct to the PROQUIGEL Emergency Control Room. Internal and external emergency notification and reporting procedures are kept up-to-date by a procedure specific to control of documents.

Transport Practice 3.4:

Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.

X in full compliance with

not in compliance with

The operation is

in substantial compliance with

Transport Practice 3.4

Summarize the basis for this Finding/Deficiencies Identified:

The Emergency Response Plan address handling, containing, recovering, neutralization and cleaning for a wide range of liquid and solid cyanide scenarios associated with both road and rail transport. It includes specific procedures in relation 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.

A 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 and is very clear about this prohibition.

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:

A Master Plan provides an annual reviewing and evaluation of the Emergency Response Plan and

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procedures adequacy.

There is a specific schedule for mock emergency drills related to cyanide.

Results of drills can generate a review of the Emergency Response Plan, according to a procedure. Aspects like time of response, adequate response and health and environment damages are evaluated in a formal questionnaire and generate a revision in the Plan, when necessary.

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