# 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) 888 16<sup>th</sup> Street, NW, Suite 303 Washington, DC 20006, USA

- 5. The submittal must be accompanied with 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: Quality Carriers Inc.
Name of Facility Owner: Quality Carriers
Name of Facility Operator:
Name of Responsible Manager: Bob Bonnett (Vice President Safety & Security)
Address: 4041 Parks Oak Blvd.; Tampa, FL 33610
State/Province: Florida Country: U.S.A
Telephone: (001) 813-569-7325 Fax: (001) 813-630-9837 E-Mail:
bbonnett@qualitydistribution.com

Additional contact person:

Bill Clark, ESHQ Compliance Manager (Cyanco)

Phone: (001) 215-321-7226 Fax: (001) 215-321-3944

E-Mail: bill.clark@cyanco.com

# **Location detail and description of operation:**

The organization Quality Carriers Inc. (QC) is acting throughout North-America and is the largest transportation company in the NAFTA region. They employ 5 regional safety managers and provide 4 operational training-centers (e.g. Montreal). QC is partner of the Responsible Care organization and member of the American Chemistry Council (ACC) with ACC certification in 12/2007 and re-certification in 2010. According to their guidelines QC has published specific procedures and policies in order to operate in a safe and secure manner.

With respect to the Cyanide Transportation Verification Protocol of the ICMI, the scope of QC in transporting cyanide is structured into 2 activities:

- a) They perform the movements of a sodium cyanide solution from the Cyanco Transloading Terminal at Cadillac in Quebec/Canada (certified to the ICMC standards by the ICMI) to the surrounded mine-sites in the northern Quebec mining region. Cyanco employees prepare and load 6,300 gallon trailers with sodium cyanide solution (30 %) and the QC driver moves them to the mine site where they will be unloaded instantly under control of the trained driver and the people at the mine site. At the moment there are nearly a dozen customers to be supplied by Cyanco and QC.
- b) The second focal point is the round-trip transportation of solid sodium cyanide between the production plant (certified to the ICMC standards by the ICMI) and the Manchester port terminal in Houston/Texas. The distance between these locations is ca. 450 miles. The ocean carrier is selected by the mine site in South America who is certified according to ISO 14001. The scope of the ICMI transportation protocol ends at Houston. Recently this process had been improved by checking each ISO container coming back from South America. These inspection and occasional repair jobs are done in the Quala Systems facility (repair shop for QC) in Houston, TX. This repair shop has been checked during the ICMC audit by the lead auditor.

U. M. Alinha Quality Distribution Inc. Mar 15th, 2010 Signature of Lead Auditor Name of Facility Date

The client of these activities is the Cyanco organization. Each single order is released by Cyanco. The equipment to be used to transport sodium cyanide is supplied by Cyanco. The trailers to transport cyanide solution in Canada (see a)) are owned by Cyanco; they are DOT 407, double skin with 6` of foam insulation, low center of gravity, with roll-over protection. The equipment to move solid sodium cyanide to Houston port (see b)) includes chassis and IM 101 single walled heavy duty stainless steel containers. The motor trucks are supplied by Quality Carriers. The cooperation between QC and Cyanco is determined by a basic contract (dated on July 11<sup>th</sup>, 2008).

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# Auditor's Finding

This operation is		
x in full compliance ☐ in substantial comp ☐ not in compliance	liance *(see below)	
with the International Cyanic	de Management Code.	
Action Plan to bring an omust be enclosed with the	n operations seeking Code certificate peration in substantial compliance is Summary Audit Report. The planty year of the date of this audit.	into full compliance
Audit Team Leader: Dr. Klin	H; August-Schanz-Str. 21; D-60433 nken, Heinz Theo E-mail: okt.k her Auditors: not applicable	
Date(s) of Audit: Jan, 28 <sup>th</sup> an	nd Mar 15 <sup>th</sup> , 2010 (documentation a	ssessment)
Verification Audit Team Leader, and that all members of the	for knowledge, experience and conflic established by the International Cyanide audit team meet the applicable criter ent Institute for Code Verification Auditor	Management Institute ia established by the
audit. I further attest that the vaccordance with the International	it Report accurately describes the finding verification audit was conducted in a place of Cyanide Management Code Verification using standard and accepted practices	professional manner in Protocol for Cyanide
	U. Mr. Michn	
Quality Distribution Inc.		Mar 15 <sup>th</sup> , 2010_
Name of Facility	Signature of Lead Auditor  U. M. Alinha	Date
Quality Distribution Inc. Name of Facility	Signature of Lead Auditor	Mar 15th, 2010 Date

# 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 acand releases.		
The operation is	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Transport Practice 1.1	

Summarize the basis for this Finding/Deficiencies Identified:

As part of QC's management system an extensive documentation has been established. Basic statements are summarized in the QC policy (commitment). In addition, appropriate procedures, working instructions or significant manuals (e.g. SAF-8.01-Policy/Program: Emergency Response Plan) are in place. According to the policy and to the responsible care guidelines QC's integrity is to use Interstate highways and hazardous material approved routes (route approvals by Transport Canada, TC, or Department of Transportation, DOT/USA). Specific routing instructions are defined. The routes are selected under the focus to avoid population density; they consider infrastructure, pitch and grade and prevalence and proximity of water bodies and fog as well. In case of construction alternative routes will be calculated to manage the corresponding risks. The routes in the Canadian mine region are worked out in cooperation between Cyanco and QC. This is a very low populated region and there are only a few roads to be used. The distances to the mines are very short, most of them are to be reached in less than one hour. Information about construction and other road conditions go through the driver. Alternative routes are approved and pre-checked; all routes and occasional detours are put into the digital satellite tracking system. Recently a new system was installed to track the chassis: SkyBitz. In the next step QC intends to install an electronic log system with special features to control the truck movement (e.g. hard brake events). The designated route between the Cyanco manufacturing facility (certified to the ICMC standards) and the goldmines or the port as well follow the interstate system in the USA and Canada, respectively. The local routes between the sites and the interstate highways are approved for hazardous materials by the US Department of Transportation or the Transportation Canada. Local community organizations have been established which are called "Local Advisory Board". In order to the Responsible Care membership QC is cooperating with these advisory boards in the area of the Cyanco production facility and in the area of the Houston harbour. In the Quebec mining region it is obviously that the different organizations such as local authorities, fire-departments, hospitals and local communities are working close together with the Cyanco terminal and the transportation company. Cyanco has organized a "Local Advisory Panel" (LAP) comprised of the fire department chief, the school principal, local nurse serving the local mining companies and community and several community residents under fall under the requirement for "Responsible Care" for the "Canadian Chemical Producers Association" (CCPA).

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Every cyanide transportation has to be ordered by the Cyanco company. Formerly, they had been part of the Evonik/Degussa group and for that they are in close contact with the DETER organization (Evonik <u>Degussa Team Emergency Response</u>) by contract. The QC way to integrate external responders is organized by the customer notification requirements. In case of the regarding Cyanide transportations, the drivers run under QC authority; that means that they are fully employed by QC and no subcontractors are operating cyanide transportations.

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	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with		
Summarize the basis for this Finding/Deficiencies Identified:  The QC company only employs people who have a commercial driver license to operate its transport vehicles according to the law of the United States and Canada. The personnel are qualified and trained in an appropriate manner to fulfil the internal QC safety requirements. The basic documents for instruction are the Quality Carriers Safety Policy, the Safety Department Policies & Procedures Manual, the Driver Safety Policy Manual and the Emergency Notification and Emergency Response Procedures. All QC employees performing the corresponding Cyanide transportations between Cyanco manufacturing facilities and the mine sites as well as the Houston port are listed. Their status of qualification and training scope is documented in an electronic data file (e.g. statement of training, receipt of personal protective equipment, receipt of accident kit, safety policy manual, emergency response guidelines etc.). The 4-day-training (40 hours) has to be finalized by an examination test. Drivers must also complete the specialized training as presented by Cyanco corporation. This part of driver's qualification is the specific training of Cyanco instructors to make them familiar with the handling of cyanide and to make them aware of the risk potentials of cyanide. For this reason, videos or explanations of the Material Safety Data Sheets have been used.			
<u>Transport Practice 1.3</u> :	Ensure that transport equipment is suitable for the cyanide shipment.		
The operation is	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with		
To deliver cyanide solution available which are owned	this Finding/Deficiencies Identified: on to the mine-sites in Quebec/Canada four 6,300 gallon trailers are by Cyanco. These trailers are DOT 407, double skin with 6`` of foam ravity, with roll-over protection.		
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Within defined periods/frequencies they are hauled to the repair shop at Montreal to do the regular inspection. For the transport of solid sodium cyanide to Houston port certified ISO containers with single walled heavy duty stainless steel tanks are used (pressure vessel 4 bar, TC impact approved). As indicated by the stamped inspection plates they are in the property of Cyanco. The corresponding chassis are leased. Periodic inspections and major repairs are to be performed under the responsibility of Cyanco. For this reason, all ISO containers are listed in a data file and supervised by Cyanco; after 2.5 years every container runs through inspection with hydrostatic pressure testing every 5 years. Additional inspections are conducted to the ISO containers coming back from South America before proceeding to the Cyanco facilities for refilling with sodium cyanide briquettes by Quala Systems (repair shop for QC) at their yard in Houston. All the trailers and ISO containers as well come from Cyanco and they are specified especially for the use to transport sodium cyanide. The specification is elaborated by Cyanco with respect to their knowledge about the characteristics of cyanide in combination with the legal requirements about transportation of cyanide. No other material has been or will be transported in these trailers or ISO containers. Overloading control is ensured by using a balance or flowmeter.

Transport Practice 1.4:	Develop and implement a safety pr	ogram for transport of cyanide.
The operation is	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Transport Practice 1.4

Summarize the basis for this Finding/Deficiencies Identified:

The trailers and the ISO containers which are used for the transportation of solid cyanide are in property of QC's client Cyanco. Several programs and procedures such as "Standard Operation Procedures", the "Diver Safety Policy Manual" or "Emergency Notification and Emergency Response Procedures" cover all important regulations and information to ensure that cyanide is transported in a manner that maintains the integrity of the packaging (trailers and ISO containers). QC is using an electronic equipment data control system to insure periodically inspections in time. The containers for transport of solid sodium cyanide are labelled as required by local and international legislations. Vehicle inspections prior to each departure are performed according to the "Driver Vehicle Inspection Report" form as required by the D.O.T. Federal Motor Carrier Safety Regulations and Transport Canada. In addition to the general QC safety guidelines the company has published restrictions concerning the prohibition of alcohol, drugs and other substances. All these above mentioned activities are documented in a practical manner.

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Transport Practice 1.5:	Follow international standards for and air.	r transportation of cyanide by sea
The operation is	x in full compliance with  ☐ in substantial compliance with  ☐ not in compliance with	Transport Practice 1.5
Summarize the basis for t Not applicable	his Finding/Deficiencies Identified:	
Transport Practice 1.6:	Track cyanide shipments to preven	t losses during transport.
	<b>x</b> in full compliance with	
The operation is	<ul><li>☐ in substantial compliance with</li><li>☐ not in compliance with</li></ul>	Transport Practice 1.6
Summarize the basis for t	his Finding/Deficiencies Identified: (	Due to the sensitivity of security

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.)

All trucks / transporters are equipped with a satellite communication system. All drivers have cell phones and the relevant phone numbers are all available in different documents. Along the complete routes between the Cyanco transloading terminal at Cadillac and the mine sites in Canada as well as between the Cyanco manufacturing facility and the Houston port terminal absolutely no blackout areas had been identified. All units transporting sodium cyanide are equipped with a QUALCOMM and SkyBitz satellite communication tracking system, respectively. There are different tools in place to control the inventory and the amount of cyanide during transportation, e.g. the bill of lading contents the gross and the net weight that is generated by flow meter (in Canada) or a calibrated balance, respectively, during loading the container. After finishing the loading process, all the container outlets are to be sealed. The container (for South America) are to be weighed at the mine site. And by the means of the satellite tracking system the trucks and containers are permanently under control. Material Safety Data Sheets are available and in place (at the production facility, on the trucks and at the mine sites).

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2. INTERIM STORAGE	_	*	t and operate ites to prevent	•	-	
Transport Practice 2.1:	Store cyc releases		nanner that m	inimizes	the potenti	al for accidental
The operation is	□ in sub	compliance stantial con compliance	npliance with	Tran	sport Pract	ice 2.1
Summarize the basis for the This chapter concerning is report (Location detail and by QC. The distances of round-trip transportations depot is needed. The scope To explain that in general minimized the following Concerning the liquid cyal on Cyanco property that directly at the mine site Concerning the delivery Manchester Port Termin according to C-TPAT (Cashort distance between interrupted and because of	the transpose to House of the archards are manide transpose into the to House of the archards are to House all at House to House archards are manufactured.	prage is not tion of operations in ton port (Eudit ends at esses are safe entioned: aportations in and guarde storage tarent on port the ston/Texas ade Partner ring facilit	applicable. As ration) there a n the Cadillac B) are short; not the mine site fe and the risk in the Quebec d 24 hours each so of the customers of the customers against Try and port te	describered two as A/Quebecto interior (A) and of the commining the day. Stomers are ped off.	activities we mining re m storage at the portoverall trans region the to The contain usually wiparked in a Manchestern). In fact the	hich are operated egion (A) and the or trans-shipping (B), respectively. Exportation chain is trailers are parked hers are unloaded ithout any delay. It is safe area at the port is certified that there is only a
3. EMERGENCY RESP	PONSE:		ent of eme			ent through the strategies and
<u>Transport Practice 3.1:</u>	Prepare releases		emergency res	sponse	plans for p	potential cyanide
The operation is	☐ in sub	compliance stantial con compliance	npliance with	Tran	asport Practi	ice 3.1
Summarize the basis for the There are several emerge procedures (Emergency I is described.	ency respo	nse plans i	n place for po	tential o	•	
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The different phases of the emergency response planning of QC is elaborated together with Cyanco. This makes sure that the selected transportation route and the physical and chemical form of cyanide is considered in an appropriate manner. As part of the emergency response plan, the driver take with them in their tractor different paperwork, documentation and equipment considering the nature of cyanide, the method of transport or the transport infrastructure as well. The role of outside responders, medical facilities or communities are covered with respect to the DETER (USA) or Newalta organisations (Canada). The emergency hotlines are published in different instructions and procedures, e.g. the Emergency Response Plan (SAF-8.01). DETER (Evonik Degussa Team Emergency Response) is essential for the success of the emergency response activities. DETER has multilingual communication capabilities, is operational 24 hours at seven days per week and could record all communication related to an emergency event. DETER serves as emergency coordinator; he provides 24-hour immediate verbal response and coordinates ultimate resolution to all emergency calls. Within this function, the emergency coordinator's responsibilities include determination of the emergency situation and potential threat to the public and to the environment, determination of the need to call for outside emergency assistance or to determine public and media notifications through DETER. Newalta is working in the same manner and provides the clients with identical service.

Transport Practice 3.2:	Designate appropriate response presources for emergency response.	personnel and commit necessar	У
The operation is	x in full compliance with  ☐ in substantial compliance with  ☐ not in compliance with	Transport Practice 3.2	

Summarize the basis for this Finding/Deficiencies Identified:

The transporter provides emergency response training on different levels. Knowledge and capability of the management is assured by training courses and practical exercises. The management people underwent a special training by a professional instruction company. All drivers of QC have to pass the QC driver orientation & training. This training covers emergency response activities, such as practical exercises (mock up and physical equipment), safety program overview, hazard communication, spill and contamination prevention or emergency notification and response. Especially, all the drivers for cyanide transportation receive annual Hazmat trainings by Cyanco experts that covers emergency response situations in an adequate manner. The descriptions of the specific emergency response duties are stated in different papers. The most important and instructive guideline is the QC ERP, accompanied by the QC operating instructions in the QC manual. In case of emergency, DETER or Newalta are coordinating the relevant responding steps. All cyanide transportation trucks are equipped with a spill kit to respond to emergencies. Completeness is controlled in accordance to the daily driver vehicle inspection report (recorded by the pre-trip inspection form) to assure its availability. Personal protective equipment is available and in function.

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<u>Transport Practice 3.3</u> :	Develop procedures for internal and external emerg and reporting.	ency notification	
The operation is	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	ce 3.3	
The QC emergency responsant partners. This procedure SKYTANK service. Espensall concerned persons, again the DETER manual expansare procedures are porting procedures are	nis Finding/Deficiencies Identified: nse plan explains the way to inform interested parties refers among others to DETER, Newalta and to cially DETER and Newalta coordinate the necessary encies and communities with relevant information. A plains the process. Internal and external emergency no re included in the DETER or Newalta processes. They lition, QC has its own system for reporting and record	the QC internal steps to provide Call Flow Chart stification as well are kept current	
<u>Transport Practice 3.4</u> :	Develop procedures for remediation of releases the additional hazards of cyanide treatment chemicals.	at recognize the	
The operation is	x in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	ce 3.4	
All remediation activities DETER. They make su corresponding remediatio	ais Finding/Deficiencies Identified: s are done by external contractors but initiated and re that the right and correct steps and activities in procedures for cyanide release are communicated the remediation activities. Treatment of cyanide will alations.	are done. The l to the external	
<u>Transport Practice 3.5</u> :	Periodically evaluate response procedures and revise them as needed.	capabilities and	
The operation is	$\mathbf{x}$ in full compliance with $\Box$ in substantial compliance with $\Box$ Transport Praction	ce 3.5	
Summarize the basis for this Finding/Deficiencies Identified: The emergency response plans and the corresponding procedures are reviewed and evaluated periodically (DETER: once per month, QC procedures: at least annually). Mock emergency drills are conducted all over the QC company, DETER processes are included. In addition, table-top simulations are conducted at least annually. There are periodical reviews and evaluations of the emergency response plans. These reviews cover the ERP's performance after their implementation as well. If necessary they will be revised.			
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