



**ICMI International Cyanide Management Code
Consigner Supply Chain
Summary Audit Report**

**Cyanco Certification Audit –
Western U.S. Rail, Barge & Truck Supply Chain**

**Submitted to:
The International Cyanide Management Institute
1400 I Street, NW – Suite 550
Washington, DC 20005
USA
*2016 Audit Cycle***



Cyanco Western U.S. Rail, Barge & Truck Supply Chain Summary

Consignor Name & Contact Information

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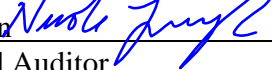
Cyanco Western U.S. Rail, Barge & Truck Supply Chain Description - Scope of Certification

Cyanco maintains a corporate office in Reno, Nevada - USA, a solid sodium cyanide plant outside of Houston, Texas - USA, a liquid sodium cyanide production facility near Winnemucca, Nevada, terminal operations in Cadillac, Quebec - Canada, and a business office outside of Montreal, Quebec.

This audit was used to evaluate Cyanco's Western U.S. Rail, Barge & Truck Supply Chain. It includes the transportation of solid sodium cyanide from the Cyanco production plant in Alvin, Texas to gold mines located in the Western U.S., including Alaska. Several parts of the supply chain are common between this supply chain and the Cyanco Rail & Truck Supply Chain and the Cyanco Ocean Supply Chain.

The only components of this supply chain that are not included in other ICMC certified operations and (operational) supply chains are the Due Diligence Assessments of:

- SEA-PAC port-related operations
- Harbor Island Port (Seattle Port) operations
- Alaska Rail Operations
- Alaska Marine Line Barge Operations

Cyanco Western U.S. Rail, Barge & Truck Supply Chain	 Signature of Lead Auditor	July 21, 2016 Date
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The table below is used to describe the transportation companies included in this supply chain and the process used to confirm ICMI Code compliance.

Transportation Segment Start Point	Transportation Segment End Point	Supply Chain / Company	ICMI Compliance Determination
Cyanco - Chocolate Bayou Plant of Ascend Performance Materials at Alvin/Texas	Union Pacific Railhead - Houston, Texas	Cyanco North American Rail & Truck Supply Chain	ICMI Web-Site Posted Certification July 5, 2015
UP Railhead - Houston, Texas	UP Railhead - Seattle, Washington	Cyanco North American Rail & Truck Supply Chain	ICMI Web-Site Posted Certification July 5, 2015; On- and Off-site Due Diligence Assessment during this audit process
UP Railhead - Seattle, Washington	Gold Mines	Alaska West Express (AWE)	ICMI Web-Site Posted Certification June 30, 2016
UP Railhead - Seattle, Washington	- SEA-PAC Transport Services, LLC Harbor Island / Port of Seattle, Washington	Alaska West Express (AWE) -	AWE is ICMC certified - see 2016 ICMI web-posted report - On- and Off-site Due Diligence Assessment during this audit process of SEA-PAC and the Harbor Island / Seattle Port
SEA-PAC Transport Services, LLC Harbor Island / Port of Seattle, Washington	Port of Whittier, Alaska	Alaska Marine Lines (AML)	On- and Off-site Due Diligence Assessment during this audit process
Port of Whittier, Alaska	Alaska West Express (AWE) Interim Storage yard Fairbanks, Alaska	Alaska Railroad	On- and Off-site Due Diligence Assessment during this audit process
AWE Interim Storage yard Fairbanks, Alaska	Gold Mines	Alaska West Express (AWE)	AWE is ICMC certified - see 2016 ICMI web-posted report

Cyanco Western U.S. Rail, Barge & Truck Supply Chain *Nicole Jung* July 21, 2016
 Name of Supply Chain Signature of Lead Auditor Date

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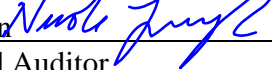
Audit Information – Cyanco Western Rail, Barge & Truck Supply Chain

This ICMC certification audit of the Cyanco Western U.S. Supply Chain was performed by an independent 3rd-party auditor who is pre-approved by the ICMI as a Lead Auditor for all types of Code audits and as a Technical Expert for Code audits of cyanide transportation and production operations. The certification audit and Due Diligence reviews were conducted between April 15 and 30, and included on-site Due Diligence Assessments of supply chain operations at the Port in Seattle (Harbor Island), Alaska Rail, Alaska Marine Line (AML), UP rail head, SEA-PAC, and the Port of Whittier in Alaska.

Cyanco's transportation management practices were evaluated using the ICMI International Cyanide Management Code requirements. The assessment was conducted through discussions and interviews with multiple individuals in cross-functional roles throughout the supply chain.

This Supply Chain previously underwent a pre-operational certification audit and was certified in its pre-operational status in 2013. At that time of the pre-operational audit, the supply chain partners were not transporting cyanide for Cyanco, but all supply chain entities have been transporting cyanide in accordance with ICMI requirements for almost a decade.

The results of this certification audit and the related due diligence assessments demonstrate that the Cyanco Western U.S. Rail, Barge & Truck Supply Chain is in FULL COMPLIANCE with ICMI transportation requirements.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain		July 21, 2016
Name of Supply Chain	Signature of Lead Auditor	Date

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Cyanco Western Rail, Barge & Truck Supply Chain
Auditor's Finding

The Cyanco Western Rail, Barge & Truck Supply chain is:

- in full compliance
- in substantial compliance
- not in compliance

with the ICMC requirements of the International Cyanide Management Code.

The operations included in this audit have not experienced any significant cyanide incidents, releases, or exposures since the supply chain was originally pre-operationally certified in 2013. The operations were found to have been in compliance with the ICMI Cyanide Code since the previous ICMC audit in 2013.

Audit Company:	MSS Code Certification Service www.mss-team.com
Lead / Technical Auditor:	Nicole Jurczyk E-mail: CodeAudits@mss-team.com
Date(s) of Audit and Due Diligence Assessments	April 15-30, 2016

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Certification 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 Certification Auditors.

I attest that the Audit Report accurately describes the findings of the certification audit. I further attest that the certification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Certification Protocol for Cyanide ICMC Transportation Operations and using standard and accepted practices for health, safety and environmental audits.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain *Nicole Jurczyk* July 21, 2016
 Name of Supply Chain Signature of Lead Auditor Date

Cyanco Western U.S. Rail, Barge & Truck Supply Chain *Nicole Jurczyk* July 21, 2016
 Name of Supply Chain Signature of Lead Auditor Date



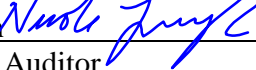
ocean barge (AML), Alaska Railroad (ARCC) to Whittier Port, and ARCC rail to Fairbanks (to interim storage), and highway to the mine. Alaska West Express, an ICMI Signatory company, operates its certified interim storage and truck transport operations in Fairbanks.

Cyanco seeks input from communities, other stakeholders and applicable governmental agencies as necessary in the selection of routes and development of risk management measures. Records were available to demonstrate that Cyanco personnel met with transportation partners and local stakeholders to seek input from communities, non-governmental organizations, and governmental authorities to seek input into the planning for their global supply chains.

Cyanco is committed to using formal policies, procedures, and contractual terms and conditions with transportation partners to ensure that cyanide is appropriately handled and transported globally.

Alaska West Express was found to be in full compliance with this transport practice during the most recent ICMC re-certification audit in 2015. Alaska Marine Lines (AML) also was found to be in compliance with all ICMC Transport Practice 1.1 requirements. Routes between Harbor Island (Seattle) and the Port of Whittier are evaluated for risk and the shortest, calmest routes are chosen. The risk of having poor weather conditions are the primary risk that needs to be managed very carefully. Extensive GPS-tracking, satellite monitoring of weather conditions, and planning take place to ensure that the barge can safely arrive and dock in the Port of Whittier. The barge crew (powered vessel that pushes / pulls the barge) is empowered to re-route the shipments and/or stop the shipment if weather conditions are considered to be too dangerous. Interviews with Alaska Railroad and AML personnel confirmed this information during the Due Diligence Assessments.

According to the United States Code of Federal Regulations (CFR) Part 172.820, each railroad operating in the United States, including companies involved in this supply chain (Alaska Railroad and the UP) must perform an extensive risk assessment and route analysis each calendar year. The safety and security risks present along the routes must be analyzed for the rails and railroad facilities. According to the regulation, railroad facilities are railroad property including, but not limited to, classification and switching yards, and storage facilities. In performing the analysis required by the regulation, the rail carrier must seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to the route(s) utilized. If a rail carrier is unable to acquire relevant information from state, local, or tribal officials, then it must document that in its analysis. Confirmation was made that both companies comply with these regulations.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain		July 21, 2016
Name of Supply Chain	Signature of Lead Auditor	Date

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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.

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

Summarize the basis for this Finding:

Cyanco has committed to using only trained, qualified and licensed (where required) operators and companies to transport its products. Cyanco performs due diligence evaluations to ensure that its Western U.S. carriers and ports operate according to recognized EHS standards and are experienced in the handling of hazardous goods. These requirements are stated in the ICMC Manual.

Cyanco is committed to using formal policies, procedures, and contractual terms and conditions with transportation partners to ensure that cyanide is appropriately handled and transported globally.

Confirmation was made that the railroads have formal environmental, health, and safety (EHS) programs in place that include internal and/or external auditing programs. The UP railroad has continued to be certified Responsible Care® Partner companies for more than six years. As such, their training programs and employee qualification processes have been audited by a 3rd – party auditing firm and have been found to be suitable and effective. The fulfillment of required training is a specific requirement of the Responsible Care Management System (RCMS).

As part of Cyanco’s due diligence review of ARRC and AML during this audit cycle, it was confirmed that employees are trained annually in the transportation of hazardous materials. According to information provided by ARRC, it regularly trains its employees in the safe handling of hazardous materials and conducts regular emergency response drills – including drills involving NaCN.

Confirmation was made through interviews and a review of records during this assessment that operations of ARCC, AML barge, SEA-PAC, and both ports used in this Supply Chain (Harbor Island – Seattle and Whittier) have personnel who are properly trained to handle hazardous materials.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain  July 21, 2016
Name of Supply Chain Signature of Lead Auditor Date



Organization Dangerous Goods (IMO DG) Code and according to the packaging instructions and packaging provisions indicated on the DG List. Cyanide packages are marked as required by Section 5.2.1 of the IMO DG Code and according to the labeling requirements indicated on the DG List.

Cyanco uses placards and appropriate signage to identify the shipment as cyanide, as required by local regulations or international standards. Section 3.1 of the ICMC Manual addresses this requirement.

Cyanco has committed to implementing a safety program for cyanide transport that includes all ICMC required considerations. The Cyanco ICMC Manual states that Cyanco confirms that its transportation partners are in compliance with all ICMC requirements.

Limitations on worker hours in the U.S. rail industry are strictly regulated and enforced by the U.S. Government. Cyanco contracts require transportation partners to adhere to all applicable regulations. There is therefore no need for Cyanco to impose additional worker hour limitations in its contractual agreements. Detailed procedures, blocking and bracing diagrams, and checklists are used by Cyanco during the loading of rail cars and inter-modal sea containers. U.S. Federal regulations require that railroads conduct random drug and alcohol testing and that drug abuse prevention programs are maintained. Cyanco also has these requirements as part of its contractual standard terms and conditions.

Safety programs were reviewed for SEA-PAC, Port, Alaska Railroad, and Barge operations. All programs were found to be compliant with ICMC requirements. Regular audits are conducted of the barge and port operations by the U.S. Coast Guard. Records were available to demonstrate that the U.S. Coast Guard had also found port operations to be acceptable. Confirmation was made that each operation has processes in place to ensure that employees are fit for duty and that operations are compliant with U.S. requirements.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain		July 21, 2016
Name of Supply Chain	Signature of Lead Auditor	Date

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- e) Shipping documents were reviewed for a sample of cyanide shipments from 2015 and 2016. Information required by the IMDG Code is required as standard practice on Cyanco shipping paperwork.
- f) The container packing certificates were reviewed during the ocean supply chain audit as part of the overall evaluation of Cyanco shipping papers. All information was found to be conformant to IMDG Code requirements.
- g) Confirmation was made during this assessment that AML uses detailed stowage plans for the placement and safe transportation of all hazardous materials, including sodium cyanide shipments.
- h) Confirmation was made during this assessment that AML has cyanide emergency response information available on board each vessel, as required by Section 5.4.3.2 of the IMDG Code.
- i) Confirmation was made during this assessment that AML complies with applicable stowage and separation requirements of Part 7 of the IMDG Code. This includes the requirement that sodium cyanide, if removed from its rail cars, be stored separately from acids, strong oxidizers, and explosives. In practice, the cyanide remains in sea containers mounted to rail cars, which are then lashed to the deck of the barge on designated rail tracks.

Cyanco does not ship cyanide by air.

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

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

Summarize the basis for this Finding:

Cyanco has committed to implementing systems and procedures to track the progress of cyanide shipments. The Cyanco Logistics Coordinator has designated responsibilities for tracking shipments on a daily basis. Cyanco uses bills of lading and shipping papers indicating the number of packages and amount of material to confirm that the chain of custody for the cyanide is recorded and that ICMC requirements are fulfilled.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain  July 21, 2016
 Name of Supply Chain Signature of Lead Auditor Date



The barge operator, AML, was also assessed for its tracking capabilities. State-of-the-art GPS tracking systems are used to transmit real-time barge location data. This was demonstrated during the assessment.

Alaska Railroad coordinates and manages the transportation segment from the loading of the intermodal containers onto its railcars using its partner, SEA-PAC through the delivery of the cyanide to the Alaska West Express Fairbanks Terminal. Chain of custody and tracking practices were reviewed with Alaska Railroad, Alaska West Express, and SEA-PAC. Chain of custody and tracking practices were documented and records from 2015 and 2016 shipments were used to confirm that chain of custody arrangements comply with ICMC requirements.

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

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

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

Summarize the basis for this Finding:

Alaska West Express stores sodium cyanide for Cyanco at its Fairbanks Terminal in Alaska. Alaska West Express is a certified ICMC Signatory company that was most recently audited for transportation and the interim storage of sodium cyanide at this location in December 2015. Interim storage operations were found to be compliant.

Cyanco has its product loaded onto railcars which are loaded onto barges at the Harbor Island port in Seattle, Washington. The transfer of the intermodal containers onto the railcars is done by SEA-PAC Transport Services, LLC, a company that specializes in the packaging of cargo that is being loaded onto barges.

SEA-PAC was assessed on-site through a review of the operations and records and through interviews. SEA-PAC is an authorized hazardous materials transportation company and they maintain an emergency response plan, chain of custody processes, and employees have received cyanide safety training. Cyanide is not stored at SEA-PAC, it is offloaded from trucks and placed onto railcars either immediately or in a short amount of time. SEA-PAC is providing a service to Alaska Railroad due to the logistics of the material entering Seattle at the Union Pacific railhead

Cyanco Western U.S. Rail, Barge & Truck Supply Chain  July 21, 2016
Name of Supply Chain Signature of Lead Auditor Date

and needing to be loaded onto a barge at Harbor Island at the Port of Seattle. Cyanco does not store cyanide at this location. Nonetheless, all cyanide in transit was observed as being properly placarded, interviews showed that no food, drink, or smoking materials are allowed in the area where cyanide is transloaded from trucks to rail cars. Transloading operations occur in a designated area in which no other chemicals are present.

Harbor Island and Whittier Port facilities were found to have sufficient security and infrastructure to assure the proper management of the cyanide shipments. The sea containers are not removed from the rail cars and the rail cars are not stored at the port facilities, they are only staged for transport onto the next barge or for transport with the next Alaska Railroad train from the Port of Whittier.

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

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

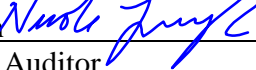
The operation is in full compliance with
in substantial compliance with Transport Practice 3.1
not in compliance with

Summarize the basis for this Finding:

Cyanco has developed and implemented an Emergency Response Plan that is appropriate for its Western U.S. supply chain. Details regarding the response procedures to be used in each region of the world, mode of transportation, and type of incident are included in the plan.

Emergency response plans reviewed during the assessment do consider the physical and chemical form of the cyanide. The only form of cyanide to be shipped on this supply chain is solid. Emergency response procedures address actions to be taken in response to a solid cyanide spill.

All of the plans and emergency response information for Cyanco, Alaska Railroad, AML, SEA-PAC, and the ports outline the roles and responsibilities of internal and external responders.

Cyanco Western U.S. Rail, Barge & Truck Supply Chain  July 21, 2016
Name of Supply Chain Signature of Lead Auditor Date

