

# ICMI Transportation Verification Protocol (Revision June 2021)

Summary Audit Report

## Cyanco Global Ocean Supply Chain

2022 Re-Certification Audit



Submitted to:

The International Cyanide Management Institute  
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## Operation General Information

<b>Operations Audited:</b>	<ol style="list-style-type: none"><li>1. Cyanco Supply Chain Management (Sugar Land, Texas)</li><li>2. Ocean Carriers (Due Diligence Assessments)</li><li>3. Global Ocean Ports (Due Diligence Assessments)</li></ol>
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## Supply Chain Description


This Cyanco Global Ocean Supply Chain includes all ocean movements as well as interim storage at ports, globally. Cyanco is headquartered in Sugar Land, Texas and maintains production and distribution centers in the United States of America in Alvin, Texas (outside of Houston), Winnemucca, Nevada, and Cheyenne, Wyoming. Cyanco Distribution Center in Canada is in Rouyn-Noranda, Quebec.

This Global Ocean Supply Chain is one of three certified supply chains maintained by Cyanco. Cyanco also maintains the North American Rail & Truck and "Western U.S." certified supply chains that specifically address movements transported in the United States, Canada, and Mexico via rail and truck and shipments to Alaska from the U.S. West Coast, respectively. Transportation to and from ports and interim storage at ISOChem in Houston is done using certified Signatory transportation partners and the certified North American Rail & Truck Supply Chain. ISOChem is an interim storage operation that is common to the Cyanco Global Ocean and North American Rail & Truck supply chains. The details regarding the on-site Cyanide Code audit of ISOChem are in the North American Rail & Truck Supply Chain report. The Western U.S. Supply Chain includes the ports and barges used along the route to Alaskan and Western Canadian mines.

Cyanco's Winnemucca Plant has been in operation since 1990 and originally produced only cyanide solution. The plant was expanded to also produce sodium cyanide solid briquettes in 2019. The operation was one of the world's first production facilities certified to the Cyanide Code in 2006. The product is delivered to gold mining customers in the western US from Winnemucca in bulk delivery tank wagons and ISO tanks. The operation also ships product by rail to customers in Canada and other U.S. destinations via its Canadian Distribution Center in Cadillac, Quebec (Canada) and the Cheyenne Distribution Center in Wyoming (United States). Both distribution centers are audited to the ICMI Production Protocol separately and maintain individual Cyanide Code certifications.

Cyanco started producing solid sodium cyanide in the industrial park of the Chocolate Bayou Plant of Ascend Performance Materials at Alvin, Texas in September 2012. The plant was acknowledged by the ICMI as being International Cyanide Management Code (Cyanide Code) certified in

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November 2013 and has been undergoing regular recertification audits since. The plant ships product in rail sparger cars, ISO containers, and one metric ton bag/boxes packed into rail box cars and 20-foot intermodal containers.

Product manufactured at the Winnemucca and Alvin (Houston) locations is shipped by truck, rail, barge, and ocean carrier. Shipments from the Port of Houston in the United States to international ports are included in the scope of this re-certification audit report. Interim storage activities the Port of Houston and international receiving ports are also part of this re-certification audit report.

## Audit Implementation and Conclusions


The audit was performed by an independent third-party auditor who is pre-approved by the ICMI as a Lead/Technical Auditor for cyanide transportation and production operations. Shipments that were destined for international global ports were physically observed during the audit of the Cyanco Rail & Truck supply chain.

Cyanco cyanide transportation management practices were evaluated against the Cyanide Code requirements documented in the 2021 revisions of the ICMI Cyanide Code, ICMI Cyanide Code Transportation Protocol, and the ICMI Auditor Guidance for Use of the Cyanide Transportation Verification Protocol. Cyanco internal standards, policies, practices, and procedures regarding the management of the Cyanide Transportation Supply Chain were reviewed.

The audit was conducted through discussions and interviews with multiple individuals in cross-functional roles at Cyanco. Records, publicly regarding ocean carriers, selection, incident tracking, equipment maintenance, security measures, shipment tracking, cargo labeling practices, shipping documentation, community involvement, and emergency response drill records were sampled for the re-certification period and were found to be acceptable.

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## Auditor's Finding

The Cyanco Global Ocean Supply Chain is in **FULL COMPLIANCE** with the International Cyanide Management Code.

Cyanco cyanide safety performance for the re-certification period was excellent, there were no cyanide-related safety incidents, accidents, spills, or exposures. The cyanide management practices for Cyanco were evaluated for Cyanide Code compliance using the 2021 version of the *ICMI Cyanide Transportation Verification Protocol*. Cyanco internal standards, policies, practices, and procedures regarding the management of the cyanide operations were reviewed.

The auditor found that the overall level of preparedness and understanding of ICMI Cyanide Code requirements was excellent. Management systems upon which the operation is based are mature, and requested records were readily available for review.

The results of this re-certification audit demonstrate that Cyanco cyanide-related distribution and transportation activities are in **FULL COMPLIANCE** with International Cyanide Management Code requirements.

## Compliance Statement

This Supply Chain has not experienced any compliance issues or significant cyanide incidents during the three-year audit cycle.

## Auditor Information

<b>Audit Company:</b>	CN Auditing Group <a href="http://www.cnauditing.com">www.cnauditing.com</a>
<b>Lead / Technical Auditor:</b>	Ralf Jurczyk E-mail: <a href="mailto:rj@cnauditing.com">rj@cnauditing.com</a>
<b>Dates of Audit:</b>	February 1-3, and March 31, 2022 with Due Diligence Reviews performed in March and April 2022



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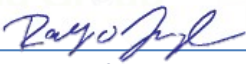
### Auditor Attestation

I attest that I meet the criteria for knowledge, experience, and conflict of interest for a Cyanide Code Certification Lead Auditor, 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 this Summary Audit Report accurately describes the findings of the re-certification audit. I further attest that the re-certification audit was conducted in a professional manner in accordance with the International Cyanide Management Code *Cyanide Transportation Verification Protocol* and using standard and accepted practices for health, safety, and environmental audits.

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## Cyanide Transportation Verification Protocol

### Principle 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.

Cyanco has implemented a process for selecting transport routes that minimizes the potential for accidents and releases or the potential impacts of accidents and releases. Cyanco personnel were interviewed, and shipping records were reviewed. Leadership understanding of Cyanco responsibilities under the Code was excellent. All Cyanco personnel demonstrated a high level of commitment to ensuring that cyanide shipments are made in compliance with Cyanide Code requirements.

Interviews were conducted to confirm that before Cyanco initially qualifies a new customer for sodium cyanide, they follow a standard practice to determine that the cyanide can be safely delivered to the customer mine site. Cyanco does not control the routing of shipments via ocean; however, they do choose the shipping ports, receiving ports, and ocean carriers. The risk evaluations associated with this supply chain focus primarily on the selection of the international ports to ensure that safety and security standards are acceptable. Infrastructure around the ports is also evaluated for alignment with Cyanide Code criteria. Ocean carriers are selected based on their abilities to deliver cyanide safely into the necessary ports and on their qualifications for transporting dangerous goods according to International Maritime Dangerous Goods (IMDG) requirements.

Risk mitigation measures have been taken in the development and implementation of an improved international shipment tracking process, the revision of the Cyanco Global Emergency Response Procedures, and the coordination of additional global emergency response resources in destination countries.

Cyanco uses experienced freight forwarding services to ensure compliant shipments and a third-party logistics provider to manage supply chain-related activities. According to interviews, both service providers report feedback to Cyanco in the event that a route, port, or ocean carrier is deemed to be at increased risk for shipment disruption or other transportation issues.

Cyanco conducts due diligence assessments of ocean carriers and ports once every three years to identify potential risks. The measures taken to address risks identified for carriers are addressed within the due diligence process. The due diligence assessments did not identify any requirement for additional safety or security measures. Each port is in a country that subscribes to the International Maritime Organization (IMO) maritime regulations, including Safety of Life at Sea (SOLAS) and International Ship and Port Facility Security (ISPS) requirements to manage safety and security risks at sea and at ports.

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Cyanco seeks input from communities, other stakeholders and applicable governmental agencies in the selection of routes and the development of risk management measures. Cyanco does not control the exact routes taken by ocean carriers, but Cyanco’s collaboration with leading international freight forwarders to manage its freight was deemed acceptable by the auditor.

The primary risks with the ocean transportation supply chain relate to the possibility of losing track of a shipment due to a trans-shipment or other factors, or the risk of having a container opened en-route by a person who has not been trained in cyanide safety. Cyanco tracks its shipments continuously, this capability was assessed during the audit and was found to be suitable. According to interviews with Cyanco personnel, all containers are sealed in order to mitigate the risk of having unauthorized personnel access the product during transit. Seal numbers were observed on all shipping papers reviewed. Photos showing the seals were available for review during the audit. The risk mitigation practices were found to be acceptable by the auditor.

Cyanco communicates and engages regularly with its transportation partners to ensure that they are aware of applicable Cyanide Code requirements. Cyanide Code related requirements are part of Cyanco’s standard contractual agreements. Cyanco ensures that its transportation partners are assessed for Cyanide Code compliance during either internal port audits, Cyanide Code re-certification audits, or due diligence assessments.

The operation is:	<input checked="" type="checkbox"/> In full compliance with	Standard of Practice 1.1
	<input type="checkbox"/> In substantial compliance with	
	<input type="checkbox"/> Not in compliance with	

**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.


Cyanco performs due diligence evaluations to ensure that its ocean carriers and ports operate according to recognized EHS standards and are experienced in the handling of hazardous goods. Each ocean carrier and port in the scope of this re-certification was included in the due diligence assessment process.

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Cyanco communicates and engages regularly with its transportation partners to ensure that they are aware of applicable Cyanide Code requirements. Cyanide Code related requirements are part of Cyanco’s standard contractual agreements. Cyanco ensures that its transportation partners are assessed for Cyanide Code compliance during either internal port audits, Cyanide Code re-certification audits, or due diligence assessments.

The operation is:	<input checked="" type="checkbox"/> In full compliance with	Standard of Practice 1.2
	<input type="checkbox"/> In substantial compliance with	

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

Inter-modal containers used for international shipments are owned and controlled by the ocean carriers that carry the containers to international destinations. Cyanco uses only authorized packaging for its solid sodium cyanide shipments. According to interviews, Cyanco periodically inspects the sea containers from ship carriers using the inspection form Conditions of Container Major Structures. It is a visual inspection for doors, rear frame, structure, corners post, corner fittings, floor and roof structures.

Cyanco performs due diligence evaluations to ensure that its ocean carriers and ports operate according to recognized EHS standards and are experienced in the handling of hazardous goods.

According to interviews with Cyanco personnel, standard weights are loaded and standard blocking and bracing configurations are used for intermodal and ISO containers. Shipping paperwork was reviewed during the audit and showed the number of packages shipped and the weight of the cargo. This information is used by transportation partners to ensure that overloading does not occur.

Loads on container ships are inspected and controlled according to the International Convention on Load Lines (ICLL), an International Maritime Organization (IMO) Convention that is applicable for all container vessels engaged in international trade. The ICLL defines the maximum allowed draught of the vessel, and how this is to be marked on the side of the vessel. Container ships are required to go through an International Load Line Certification process that verifies that the vessel strength and stability have been approved for the specific loading capacities. Lines are drawn on the sides of ships to mark the height of the freeboard mark that must be maintained. The use of this mark ensures that the vessel has a reserve buoyancy and bow height in compliance with the requirements of the ICLL. The use and monitoring of this ship characteristic ensures that the container ship is not overloaded.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.3
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**Transport Practice 1.4:** Develop and implement a safety program for transport of cyanide.

Cyanco ensures that cyanide is transported in a manner that maintains the integrity of its packaging. Transportation of cyanide by sea is done in compliance with the International Maritime Organization Dangerous Goods Code. Cyanide shipments are packaged in accordance with Part 4 of the International Maritime 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. Cyanide packages are labeled as required by Section 5.2.2

of the IMO DG Code and according to the labeling requirements indicated on the DG List. Cyanide packaged in transport units are placarded and marked as required by Chapter 5.3 of the IMO DG Code.

Cyanco uses placards and other signage to identify the shipment as cyanide, as required by local regulations or international standards. The UN packaging number UN 1689 is displayed on all intermodal containers and ISO tanks. Observations made during the audit confirmed this practice.

Cyanco does not manage the ocean transport directly, but it does perform due diligence evaluations to ensure that its ocean carriers and ports operate according to recognized EHS standards, safety program expectations, and that they are experienced in the handling of hazardous goods.


The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.4
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**Transport Practice 1.5:** Follow international standards for transportation of cyanide by sea.

Cyanco transports shipments of cyanide by sea in compliance with the Dangerous Goods Code of the International Maritime Organization. Cyanco ships its sodium cyanide on ocean carriers that have demonstrated safety programs and safe performance. Ocean carriers are subject to all International Maritime Organization (IMO) requirements, including those relevant to cyanide shipment safety. The following information was evaluated during the audit:

- a) Cyanco packaging specifications were found to be conformant to the packaging requirements of the IMDG Code.
- b) Shipping containers were reviewed during the associated North American Rail & Truck Supply Chain audit. Photos of packaging were also reviewed. Packages and shipping containers were appropriately marked and were found to be compliant with Chapter 5.2 of the IMDG Code requirements.
- c) Shipping containers were appropriately marked and were found to be compliant with Chapter 5.2 of the IMDG Code requirements.
- d) Loaded intermodal and ISO tank shipping containers were evaluated and were found to be marked and placarded in accordance with the IMDG Code.
- e) Shipping documents were reviewed for a sample of cyanide shipments from 2022 for each ocean carrier used in this supply chain. All information required by the IMDG Code is required as standard practice on Cyanco shipping paperwork.
- f) The container packing certificates from 2022 shipments were reviewed during the audit as part of the overall evaluation of shipping papers. All information was found to be conformant to IMDG Code requirements.

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- g) Confirmation was made through the due diligence process that ocean carriers involved in this supply chain use detailed stowage plans for the placement and safe transportation of all hazardous materials, including sodium cyanide shipments.
- h) Confirmation was made through the due diligence process that ocean carriers involved in this supply chain have 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 through the due diligence process that ocean carriers involved in this supply chain complies with stowage and separation requirements of Part 7 of the IMDG Code. This includes the requirement that sodium cyanide be stored separately from acids, strong oxidizers, and explosives.

The operation is:  In full compliance with Standard of Practice 1.5  
 In substantial compliance with  
 Not in compliance with

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

Cyanco has systems and procedures to track the progress of cyanide shipments. Interviews with Cyanco personnel were conducted during the audit. Cyanco GPS tracking capabilities and planned online tracking capabilities through ocean carrier information portals were confirmed through computer demonstration and interview. Cyanco has a satellite tracker system and by means of a spreadsheet controls shipments planning. Cyanco has real-time tracking capabilities for its shipments through its logistics partners.

Shipping paperwork was reviewed during the audit from multiple shipments made during the re-certification period. Records were found to be conformant to Cyanide Code requirements, including chain of custody requirements.

The following documentation is used to track inventory and movement of cyanide: bills of lading and shipping papers indicating the number of packages and amount of material. Information was found to be compliant.

Cyanco uses formal standards, policies, guidelines, formal contracts with safety, health, environmental, and security terms and conditions to ensure that cyanide is appropriately handled and transported by its transportation partners.

The operation is:  In full compliance with Standard of Practice 1.6  
 In substantial compliance with  
 Not in compliance with



## Principle 2 | INTERIM STORAGE

Design, construct and operate cyanide interim storage sites to prevent releases and exposures.

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

Interim storage activities in this supply chain, as defined by ICMI, are limited to those that take place at the ocean ports. Port operations ensure that the storage locations and security access to the ports is in alignment with Cyanide Code requirements. The interim storage location in Houston, Texas (ISOChem) underwent a full Cyanide Code audit and is included in the Cyanco North American Rail & Truck Supply Chain certification.

Cyanco evaluated the suitability of interim storage at ports through its due diligence evaluation process. The ports were each evaluated on-site initially to confirm fulfillment of Cyanide Code requirements and then remotely to confirm continued suitability. The due diligence assessment results are included later in this report under the Port Due Diligence section.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 2.1
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## Principle 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.

Cyanco has developed and implemented a Global Transportation Emergency Response Plan (GTERP) that is appropriate for its Global cyanide supply chains. The GTERP includes extensive details regarding the response procedures to be used in each region of the world, each mode of transportation, and type of incident. The GTERP was developed and is maintained by emergency response subject matter experts and was last updated in 2022. The notification numbers are updated every 6 months and the rest of the plan is reviewed at least annually and updated as necessary.

The Cyanco GTERP was found to be suitable and appropriate for this supply chain, routes, physical form of the cyanide (solid), method of transportation and/or interim storage, transportation infrastructure, and design of the transport vehicles/containers (1-ton box in intermodal container or ISO tank) and design of the interim storage facilities (ISOChem and ports).

Only solid sodium cyanide is shipped using this supply chain. Emergency response procedures

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address actions to be taken in response to sodium cyanide spills. The Cyanco emergency response plans include an appendix showing the engineering design drawings and loading patterns for their ISO tanks and 1-ton box in intermodal container configurations among others. The plan considers the cyanide transport by ocean, rail, trucks, trailers, and intermodal containers. The Cyanco GTERP was found to be appropriate for the mode of transportation involved.

The Cyanco GTERP includes descriptions of response actions, as appropriate for the anticipated emergency situations. Cyanco also contracts with professional emergency response and remediation firms in the countries into which it ships to ensure that local emergency response is appropriate for the country involved. The Cyanco GTERP is universally applicable to all types of emergencies. All of the plans and emergency response information clearly outline the roles and responsibilities of internal and external responders.

The emergency response information in the GTERP clearly outlines the roles and responsibilities of internal and external responders. Cyanco has enhanced its emergency response procedures to further detail the roles of outside responders that may be needed for emergency situations. Cyanco also contracts with several emergency response companies to mitigate risk and manage any significant release incident or accident that might occur.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.1
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**Transport Practice 3.2:** Designate appropriate response personnel and commit necessary resources for emergency response.

The overall role and responsibility descriptions are maintained in the Cyanco GTERP. Interviews with Cyanco personnel confirmed that there was good awareness of the roles and responsibilities in the event of an emergency. Although it is highly unlikely that Cyanco would be called in to respond to an emergency by an ocean carrier at sea, it is conceivable that Cyanco may need to respond to an emergency at a port.

Cyanco does not provide emergency equipment to ocean carriers or ports. This was accepted by the auditor.

Cyanco uses formal policies, procedures, and contracts with safety, health, environmental, and security terms and conditions to ensure that cyanide is appropriately handled and transported by its transportation partners.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.2
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**Transport Practice 3.3:** Develop procedures for internal and external emergency notification and reporting.

Cyanco information and other emergency contact information is contained in the Global Transportation Emergency Response Plan (GTERP).

The emergency information in the GTERP was reviewed during the audit and was found to be up to date. It was last updated in 2022.

Any significant cyanide incident in the supply chain would be reported to Cyanco. Cyanco procedures detail that Cyanco would notify ICMI in the event of a significant cyanide incident involving its product.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.3
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**Transport Practice 3.4:** Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.

Specific details regarding the remediation, neutralization, decontamination, and disposal of clean-up debris are contained within the Cyanco emergency response procedures. Extensive descriptions of necessary action steps depending on the incident scenario are clearly outlined in the documents.

Cyanco personnel showed a high level of awareness that the use of treatment chemicals is prohibited if cyanide spills into surface waters. Cyanco emergency response procedures specifically prohibit the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide for treating a cyanide spill into surface water.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.4
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**Transport Practice 3.5:** Periodically evaluate response procedures and capabilities and revise them as needed.

Cyanco periodically reviews its emergency response plans for adequacy. Reviews are generally performed on at least an annual basis and after incidents, drills, and tabletop exercises. The Cyanco GTERP was found to be current with the most recent revision date in 2022.

The Cyanco GTERP has a detailed matrix of the different scenarios and combination drills and tabletop simulations that are to be conducted over a three-year period.

Cyanco runs tabletop simulations at least annually and emergency response drills with each supply chain within the recertification period. Records were available to demonstrate that Cyanco has held emergency response drills during the recertification period.

Emergency drill and tabletop records were available for Cyanco. Emergency response drill records were available for review for each year from 2018-2022.

Cyanco reviews and revises its emergency response plans as necessary after responding to an actual emergency and after emergency response drills. Formal "After Action" action-tracking systems are used to ensure timely and complete close-out of actions following emergency response drills and actual emergencies.

Evidence was available to demonstrate that a full drill critique was done after the emergency drills reviewed during the audit. An "After Action" report was developed, and formal corrective actions were opened and tracked to closure. Records were reviewed and were accepted by the auditor.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.5
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## Ocean Carrier Due Diligence Investigation Results

Cyanco ships its solid sodium cyanide on main line ocean carriers that meet recognized Environmental, Health, and Safety (EHS) standards and that are experienced in the handling of dangerous goods. The ocean routes are chosen by the ocean carriers. According to Cyanco's Cyanide Code Manual, ocean carriers used for cyanide shipments undergo a Due Diligence review of their ability to fulfill ICMI Code requirements.

Due Diligence assessments were conducted for the ocean carriers and ports included in the scope of the Global Ocean Supply Chain. This Global Ocean Supply Chain includes the following ocean carriers:

1. Hamburg Sued
2. Maersk/Sealand
3. Hapag Lloyd
4. Mediterranean Shipping Co. (MSC)
5. CMA CGM
6. Compañía Sud Americana de Vapores (CSAV)
7. Zim Lines
8. Seaboard
9. Intermarine
10. Grimaldi Lines
11. COSCO Shipping Lines Inc.
12. ONE

### Principle 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.

Ocean routes are chosen by the ocean carriers and are regulated by a number of international organizations. When Cyanco plans a specific shipping route to an ICMI Signatory Mine, it evaluates the route that will be taken from production to mine site. This route evaluation includes the selection of the most appropriate destination port and then the selection of an ocean carrier with hazardous material handling capabilities.

According to interviews, Cyanco gives strong preference to ocean carriers that have already been found to be compliant with Cyanide Code requirements through a Cyanide Code Due Diligence assessment. Ports that have been found to be acceptable are chosen based on proximity to end customer, experience handling hazardous materials safely, security of the port, emergency





response capabilities, and road infrastructure to the port. Only in cases where a closer port has unacceptable infrastructure or security is the shipment routed using a longer over-the-road segment.

The operation is:  In full compliance with Standard of Practice 1.1  
 In substantial compliance with  
 Not in compliance with

**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.

According to the responses to a questionnaire modeled after the Cyanide Code Transportation Protocol, ocean carriers reported that they comply with International Maritime Organization (IMO) requirements and are in compliance with International Maritime Dangerous Goods (IMDG) and U.S. 49 Code of Federal Regulations (CFR) requirements concerning the transportation of the hazardous materials, including the training of employees.

Intermodal moves once the shipment reaches the port are controlled by the ocean carrier. Ocean carriers self-reported to Cyanco that they train their personnel on hazardous materials handling. Information from the carriers also indicated that they have systems in place to ensure that inter-modal moves are performed by appropriately licensed and qualified personnel.

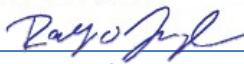
The operation is:  In full compliance with Standard of Practice 1.2  
 In substantial compliance with  
 Not in compliance with

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

Ocean carriers are required by international maritime laws to comply with extensive maritime regulations regarding the safe and appropriate shipping of dangerous goods. Each ship is registered in a country and under international maritime laws, that country is held accountable for ensuring compliance of the registered ships. This is accomplished by auditing and fulfillment of reporting requirements to maritime authorities, such as the United States Coast Guard. Memorandum of Understanding exist between countries to enable the authorities in one jurisdiction to govern ships sailing into that jurisdiction and ensure compliance.

The operation is:  In full compliance with Standard of Practice 1.3  
 In substantial compliance with  
 Not in compliance with

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**Transport Practice 1.4:** Develop and implement a safety program for transport of cyanide.

As part of the due diligence questionnaire process, ocean carriers self-reported that they train their personnel on hazardous materials handling. In their responses, ocean carriers reported that they have robust safety programs which are mandated by international laws. Formal safety, environmental, emergency response, and auditing programs apply to all employees aboard ocean vessels.

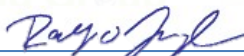
The operation is:  In full compliance with Standard of Practice 1.4  
 In substantial compliance with  
 Not in compliance with

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

International standards for the transportation of cyanide by sea are followed. The following information was evaluated during the audit:

- a) Cyanco packaging specifications were found to be conformant to the packaging requirements of the IMDG Code.
- b) Shipping containers were reviewed during the associated North American Rail & Truck Supply Chain audit. Photos of packaging were also reviewed. Packages and shipping containers were appropriately marked and were found to be compliant with Chapter 5.2 of the IMDG Code requirements.
- c) Shipping containers were appropriately marked and were found to be compliant with Chapter 5.2 of the IMDG Code requirements.
- d) Loaded intermodal and ISO tank shipping containers were evaluated and were found to be marked and placarded in accordance with the IMDG Code.
- e) Shipping documents were reviewed for a sample of cyanide shipments from 2022 for each ocean carrier used in this supply chain. All information required by the IMDG Code is required as standard practice on Cyanco shipping paperwork.
- f) The container packing certificates from 2022 shipments were reviewed during the audit as part of the overall evaluation of shipping papers. All information was found to be conformant to IMDG Code requirements.
- g) Confirmation was made through the due diligence process that ocean carriers involved in this supply chain use detailed stowage plans for the placement and safe transportation of all hazardous materials, including sodium cyanide shipments.
- h) Confirmation was made through the due diligence process that ocean carriers involved in this supply chain have 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 through the due diligence process that carriers involved in this supply chain complies with stowage and separation requirements of Part 7 of the IMDG

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Code. This includes the requirement that sodium cyanide be stored separately from acids, strong oxidizers, and explosives.		
The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.5

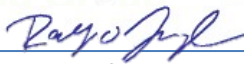
<b>Transport Practice 1.6:</b> Track cyanide shipments to prevent losses during transport.		
<p>Ocean carriers reported that they have computer systems that are used for the tracking and management of all freight containers within their system. The management systems provide among other items the date, time, location, and carrier involved in the last interchange, transport action, or gate move. Cyanco's freight forwarder has access to this information via the internet web sites. Cyanco can request this information at any time. This was confirmed through a sampling approach during the audit.</p> <p>The sodium cyanide shipments for this segment are containerized loads of bag-in-box packages and ISO tank shipping containers. All shipping containers are sealed. Shipping papers were reviewed. Auditors confirmed that seal numbers are recorded on the bills of lading. This enables personnel along any portion of the segment to confirm that the containers have not been opened.</p>		
The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.6

## Principle 2 | INTERIM STORAGE

Design, construct and operate cyanide interim storage sites to prevent releases and exposures.

<b>Transport Practice 2.1:</b> Store cyanide in a manner that minimizes the potential for accidental releases.		
<p>Ocean carriers reported that during transport, the storage of cyanide both on land and on vessels is in accordance with the applicable stowage and segregation requirements in the IMDG and the Coast Guard 33 CFR regulations when in the United States. The terminal must segregate containers similar to the segregation onboard vessels.</p> <p>Safety checklists and seals are used by Cyanco personnel when the shipping containers are loaded. The seal enables verification that the container was not opened during transit.</p>		

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The ports within the scope of this certification audit were initially assessed for their ability to handle hazardous materials safely. The ports were confirmed to be secure with appropriate roadway or rail infrastructure into the port. See the port due diligence section of this report for additional information.

The operation is:  In full compliance with Standard of Practice 2.1  
 In substantial compliance with  
 Not in compliance with

### Principle 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.

Ocean carriers reported that they and their affiliates have emergency response plans in place which include the prompt notification of all involved parties. Cyanco provides shipping papers showing the emergency contact information which is then transferred to the hazardous cargo declaration.

Emergency response planning and the performance of frequent emergency drills are required by international laws. Ocean carrier responses confirmed that emergency response planning is an integral part of these programs.

The operation is:  In full compliance with Standard of Practice 3.1  
 In substantial compliance with  
 Not in compliance with

**Transport Practice 3.2:** Designate appropriate response personnel and commit necessary resources for emergency response.

Onboard vessels, the emergency response would be conducted by trained crew members with shore side support and guidance.

The operation is:  In full compliance with Standard of Practice 3.2  
 In substantial compliance with  
 Not in compliance with



**Transport Practice 3.3:** Develop procedures for internal and external emergency notification and reporting.

Ocean carriers reported that they have emergency response plans in place which include the prompt notification of all involved parties.

The operation is:  In full compliance with Standard of Practice 3.3  
 In substantial compliance with  
 Not in compliance with

**Transport Practice 3.4:** Develop procedures for remediation of releases that recognize the additional hazards of cyanid treatment chemicals.

Ocean carrier responses confirmed that they would communicate with Cyanco cyanide experts in the event of a spill. Cyanco bans the use of cyanide destruction chemicals for cyanide spills into water.

The operation is:  In full compliance with Standard of Practice 3.4  
 In substantial compliance with  
 Not in compliance with

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

The due diligence questionnaire responses from ocean carriers confirmed their understanding of emergency response requirements.

The operation is:  In full compliance with Standard of Practice 3.5  
 In substantial compliance with  
 Not in compliance with



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## Ocean Port Due Diligence Investigation Results

Ports used in this supply chain are listed below:

1. Port of Callao, Peru
2. Port of Caucedo, Dominican Republic
3. Port of Cortes, Honduras
4. Port of Houston, USA
5. Port of Nouakchott, Mauritania
6. Port of Tema, Ghana

Solid sodium cyanide packed into intermodal or ISO tank shipping containers is shipped from the Port of Houston in Texas USA using the ocean carriers detailed in this supply chain audit report. The cyanide is received at the international ports and stored for a short time (normally no more than three days) and is picked up by transportation companies that have either contracted to Cyanco or to the mine site to which they are delivering. The road transportation in the destination country is outside the scope of this certification audit activity.

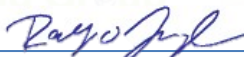
When a port is first added to the supply chain, the port evaluation process involves an on-site review of environmental, health, safety, and security practices. Fulfillment of Cyanide Code requirements is confirmed at that time. Road infrastructure to and from the ports, as well as port experience with handling dangerous goods is also evaluated.

On-site evaluations were performed for each port within the scope of this audit as part of previous Cyanide Code certification and re-certification audits. Remote due diligence evaluations are conducted after the initial assessment on a three-year frequency. If there are no spills, security or incidents during the re-certification period, no on-site re-visit is deemed necessary. were conducted for the existing ports to confirm that they are still suitable for use in the supply chain. No negative issues, spills, or cyanide exposures were reported during the re-certification period from any of the ports.

In addition to Cyanco's efforts to ensure that Cyanide Code requirements are fulfilled, there are many agencies chartered with the task of confirming that shipping is conducted in a safe and secure manner. One such organization is the International Maritime Organization (IMO). The IMO was established in Geneva in 1948 and it currently headquartered in London, United Kingdom. The IMO is a specialized agency of the United Nations. The IMO's primary purpose is to develop and maintain a comprehensive regulatory framework for shipping. The IMO regulates practices associated with safety, environmental concerns, legal matters, technical co-operation, maritime security and the efficiency of shipping. One initiative of the IMO is the International Convention for the Safety of Life at Sea (SOLAS), which was enacted in 1974. Ocean carriers are required to have periodic audits of their safety programs. The provisions of SOLAS include: fire protection, life saving equipment, radio communications, safety of navigation, transportation of dangerous goods,

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management of safe operations of ships, and maritime security.

With regard to port safety and security, new amendments to the SOLAS Convention were enacted in 2002. These amendments gave rise to the International Ship and Port Facility Security (ISPS) Code, which went into effect on 1 July 2004. The concept of the code is to provide layered and redundant defenses against smuggling, terrorism, piracy, stowaways, etc. The ISPS Code required most ships and port facilities engaged in international trade to establish and maintain strict security procedures as specified in ship and port specific Ship Security Plans and Port Facility Security Plans. Container ships and ports that service them are required to have multiple third-party audits of safety and security. Each ship and each port involved in international trade undergoes external security, safety, and management system audits at least annually. In the United States the Port Facility Security Plans are filed with, and monitored by the United States Coast Guard, the U.S. authority with jurisdiction over U.S. Ports.

**Port of Callao – Peru**

The Port of Callao is located just 12 kilometers from downtown Lima and is Peru’s primary commercial port. The Port of Callao is fully fenced and has strict access controls. Cyanco contracted a third-party Cyanide Code auditor who is external to CN Auditing Group to evaluate the Port of Callao during a previous re-certification cycle. The auditor assessed the port and concluded that port operations including storage and handling operations were in conformance with Cyanide Code requirements.

During the initial on-site assessment, interviews were held with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. The remote evaluation confirmed that the information shown here is current, that Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is still suitable for cyanide storage and shipments.

**Port of Caucedo – Dominican Republic**

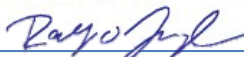
The Port of Caucedo is located on the southern half of the Dominican Republic. It is located approximately 30 minutes / 25 km from Santo Domingo, the capital of the Dominican Republic. It is also located about 5 km from the International airport in a Free Trade Zone.

The port was built in 2003. It has three deep water berths, 17 m deep, with a length of 922 m.

DP World Limited, which operates the port and logistics center, is incorporated in Dubai. It operates 70 terminals on 6 continents. DP World has more than 36,000 employees, and, according to its website, is the 4<sup>th</sup> largest Marine Terminal Operator.

The port is has multiple accreditations, including ISO 28000-2007, C-TPAT, US Homeland

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Security, US Coast Guard, ISPS, CSI.

The Port of Caucedo is fully fenced and has strict access controls. Cyanco contracted a third-party Cyanide Code auditor who is external to CN Auditing Group to evaluate the Port of Caucedo during a previous re-certification cycle. The auditor audited the port and concluded that port operations including storage and handling operations were in conformance with Cyanide Code requirements.

During the initial on-site assessment, interviews were held with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. The remote evaluation confirmed that the information shown here is current, that Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is still suitable for cyanide storage and shipments.

**Port of Cortes, Honduras**

*Puerto Cortes* is in the north and along the Atlantic coast of Honduras. It is the main port of the country and is the one of greater traffic between the Honduran and is one of Central America’s most important ports. The port handles 85% of shipment to Honduras, 10 % to El Salvador and 5% to Nicaragua.

It has the advantage of being in a well-protected natural bay of deep waters where the variation of the tides is insignificant, with a maximum fluctuation of 0.3 m. Northeast winds and shifting currents.

*Puerto Cortes* is located 40 minutes from the highway to the industrial city *San Pedro Sula* and 2 hours with the border of Guatemala, towards Puerto Barrios and Santo Tomas de Castilla. It has one of the most complete terminals of containers in the region.

It has six dock berths, of which docks 4, 5 and 6 have been concessioned to the Philippine ICTSI (International Container Terminal Services Inc.), which formed a partnership with *Operadora Portuaria Centroamericana S.A. de C.V.*

The facility is completely fenced. Access to the port is only possible via a security gate. Security cameras are used throughout the facility and the port is manned 24 hours per day. The port maintains a management system that conforms to ISO 14001 and maintains an International Ship and Port Security (ISPS) certification.

During the on-site assessment during the previous re-certification cycle, interviews were held with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. Confirmation was also made that Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is suitable for cyanide storage and shipments.



**Port of Houston, USA**

Cyanco’s Texas production facility is located in close proximity to the Port of Houston. This is the primary ocean shipping port used by Cyanco. The port of Houston is one of the world’s largest ports, it is located in Texas in the United States along the southern coast. The port is a 50-mile-long complex of diversified public and private facilities. Cyanco audited the port during a previous re-certification cycle and confirmed that it meets Cyanide Code requirements.

The facility is completely fenced. Access to the port is only possible via a security gate. Security cameras are used throughout the facility and the port is manned 24 hours per day. The ports is under the jurisdiction of the United States Coast Guard. The Coast Guard monitors the Houston port and the shipping channel closely and performs multiple audits of port facilities each year.

During the on-site assessment during the previous re-certification cycle, interviews were held with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. Confirmation was also made that Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is suitable for cyanide storage and shipments.

**Port of Nouakchott - Mauritania**


Mauritania, officially the Islamic Republic of Mauritania, is a country in the Maghreb region of western North Africa. It is the eleventh largest country in Africa and is bordered by the Atlantic Ocean to the west, Morocco and the remnants of Western Sahara in the north, Algeria in the northeast, Mali in the east and southeast, and Senegal in the southwest.

Solid sodium cyanide is received at the Port of Nouakchott in sea containers, and they are immediately loaded onto trucks to go to mine sites. The Port is situated some distance from the city of Nouakchott with one access road leading the Port entrance. A distance from the Port, one road leads to the city of Noaukchott, while the main road leads past the city, and eventually onto the main road leading north.

The Port, “Port de l’Amitié” (PANPA) is run by the Port Autonome De Nouakchott and is a Governmental Department.

The Port of Nouakchott is fully enclosed in walls and fencing and has strict access controls. Cyanco contracted a third-party Cyanide Code auditor who is external to CN Auditing Group to evaluate the Port of Nouakchott during a previous re-certification cycle. The auditor audited the port and concluded that port operations including storage and handling operations were in alignment with Cyanide Code requirements. The Port is authorized for the receipt of dangerous

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goods. Equipment, training programs, handling practices, and emergency response preparedness were all deemed suitable and acceptable for the handling of solid cyanide in sea containers.

During the initial on-site assessment, interviews were held with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is still suitable for cyanide storage and shipments.

### **Port of Tema – Ghana**

The Port of Tema is the main Container Port servicing Ghana and some of the land locked countries (Burkina, Mali, Niger & Chad). The port has been in use since 1962. The port operator that was evaluated through Due Diligence is Meridian Port Service (MPS). During the previous re-certification cycle, interviews were held with MPS personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed.

The Port of Tema is located in Tema, which is in the southeastern part of Ghana and is about 30 kilometers east of Accra. The Tema Port has a security fence around the entire Port. Security measures include electronic access gates for staff, 24-hour manned security staff and the use of surveillance cameras.

During the initial on-site assessment, mine personnel held interviews with port personnel, procedures were assessed, storage and handling practices were observed, and records were reviewed. Cyanco has not had any negative experiences with the port. Cyanco has concluded that the port is still suitable for cyanide storage and shipments.

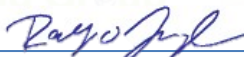


## Detailed Due Diligence Findings

The results of the initial on-site due diligence assessments performed during the previous re-certification cycle are listed in the following table and are arranged by topic: Port Security, Safety & Training, Material Handling & Storage (including environmental considerations), and Emergency Response.

Topic	Assessment Results
<b>Port Security</b>	<ul style="list-style-type: none"><li>• All ports in this supply chain are completely surrounded with walls or fences and access to the ports is strictly controlled. Security at the ports was found to be consistent with Cyanide Code requirements.</li><li>• Confirmation was made that the following practices are in place: 24/7 manned security; complete fence line; no public access; sealed (locked storage containers); security cameras.</li></ul>
<b>Safety &amp; Training</b>	<ul style="list-style-type: none"><li>• The ports all currently handle sodium cyanide.</li><li>• Port personnel receive Dangerous Goods training.</li><li>• Confirmation was made during the audits that no eating, smoking, or open flames are allowed in areas where cargo is handled and stored.</li></ul>
<b>Material Handling &amp; Storage</b>	<ul style="list-style-type: none"><li>• Dangerous Goods cargo is stored using standard chemical compatibility management practices at each port.</li></ul>
<b>Emergency Response</b>	<ul style="list-style-type: none"><li>• A written Emergency Response Plan (ERP) was available at each port.</li><li>• The roles and responsibilities of the Emergency Response Team are defined in the Emergency Response Plan (ERP). The information in the ERP was found to be acceptable.</li><li>• Appropriate emergency response equipment was available at each of the Ports.</li></ul>

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