

# ICMI Transportation Verification Protocol (Revision June 2021)

Summary Audit Report

## Cyanco Western U.S. / Canada Supply Chain

2023 Re-Certification Audit



Submitted to:

The International Cyanide Management Institute  
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Washington, DC 20005  
USA

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## Operation General Information

|  |   |
|--|---|
| Supply Chain Audited:                                | Cyanco Western U.S./Canada Supply Chain   |
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## Supply Chain Description

The Cyanco Western U.S./Canada Supply Chain includes the transportation of solid sodium cyanide from the Cyanco production plant in Alvin, Texas to gold mines located in the Northwestern U.S. (Alaska) and Western Canada (Yukon Territory). Several parts of the supply chain are common between this supply chain and the Cyanco North America Rail & Truck Supply Chain and the Cyanco Global Ocean Supply Chain.

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. The Cyanco Distribution Center in Canada is in Rouyn-Noranda, Quebec. The Cyanco Winnemucca Plant has been in operation since 1990 and ships sodium cyanide solution and solid briquettes in bulk quantities using rail cars, truck tankers, and ISO tanks. The operation was one of the world's first production facilities certified to the Cyanide Code in 2006.

Cyanco also produces solid briquettes, and more recently, liquid sodium cyanide in the industrial park of the Chocolate Bayou Plant of Ascend Performance Materials at Alvin, Texas. Alvin, Texas is just outside of Houston, Texas. The plant was first certified to the Cyanide Code in November 2013, shortly after it began operations, and has been undergoing regular re-certification audits since. The plant ships solution in rail tank cars, briquettes in bulk rail sparger cars, ISO containers, and one metric ton bag/boxes packed into rail box cars and 20-foot intermodal containers. This Western U.S./Canada Supply Chain is used to ship the 1-ton solid sodium cyanide bag/box configuration packed into 20-foot intermodal containers from the Cyanco Houston Plant.

This Western U.S./Canada Supply Chain starts with the truck transport from the Union Pacific (UP) Railroad rail head in Seattle, Washington. The Cyanco certified North American Rail & Truck Supply Chain is used to move the product via rail to Seattle. The intermodal containers are brought directly

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to the Alaska Marine Lines port facility on the Duwamish River in Seattle (referred to here as Seattle Port) by Lynden Transport, Inc. (LTII) and are loaded onto Alaska Marine Line (AML) barges for transport to Skagway Port in Alaska. The intermodal containers are picked up from the Skagway Port by Canadian Lynden Transport Ltd (CLT) and are transported directly to mine customers. CLT drivers are dispatched from Whitehorse in the Yukon Territory and Drivers stop in Whitehorse on their way between Skagway and the mine. Under normal weather and transit conditions the cyanide is not stored at this location, but the truck yard was evaluated and classified during this audit as an interim storage location. In this way, the occasional storage of the intermodal containers at the Whitehorse Terminal is allowed.

The table below is used to describe the transportation companies included in this supply chain and the process used to confirm Cyanide Code compliance.

| Transportation Segment Start Point  | Transportation Segment End Point             | Supply Chain / Company                               | Cyanide Code Compliance Determination  |
|---|--|--|--|
| Cyanco - Chocolate Bayou Plant of Ascend Performance Materials at Alvin/Texas | Union Pacific Railhead - Houston, Texas      | Cyanco North America Rail & Truck Supply Chain       | ICMI Website Posted Certification<br>July 27, 2022   |
| UP Railhead - Houston, Texas  | UP Railhead - Seattle, Washington            | Cyanco North America Rail & Truck Supply Chain       | ICMI Website Posted Certification<br>July 27, 2022   |
| UP Railhead - Seattle, Washington   | AML Port Operations Seattle, Washington      | Lynden Transport, Inc. (LTII) – dray truck transport | On-Site Audit of LTII at AML Port Operations / Seattle Port  |
| Seattle Port, Washington  | Skagway Port, Alaska                         | Alaska Marine Lines (AML) – barge transport          | On-Site Due Diligence Review of AML and Port operations  |
| Skagway Port, Alaska  | Whitehorse Terminal, Yukon Territory, Canada | Canadian Lynden Transport (CLT)                      | On-Site Audit of CLT Interim Storage   |
| Whitehorse Terminal   | Mine Sites                                   | Canadian Lynden Transport (CLT)                      | On-Site Due Diligence Review of Skagway Port and On-Site Audit of CLT transportation operations dispatched from Whitehorse, Yukon Territory (Canada) |

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## Audit Implementation and Conclusions

This Cyanide Code re-certification audit of the Cyanco Western U.S./Canada 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 Cyanide Code audits and as a Technical Expert for audits of cyanide transportation and production operations. The re-certification audit and Due Diligence reviews were conducted in May 2023, and included on-site audits and due diligence assessments and remote due diligence reviews of supply chain operations at the Port in Seattle, Alaska Marine Line (AML), UP rail head, Lynden Transport, Inc. operations in Seattle, the Port of Skagway in Alaska, and Canadian Lynden Transport operations between the Skagway Port, Whitehorse Terminal, and a mine customer in Canada.

Cyanide transportation management practices were evaluated using the ICMI International Cyanide Management Code requirements. The assessment was conducted through discussions, interviews, and physical site observations throughout the supply chain.

The results of this re-certification audit and the related due diligence assessments demonstrate that the Cyanco Western U.S./Canada Supply Chain is in FULL COMPLIANCE with the International Cyanide Management Institute (ICMI) Cyanide Code transportation requirements.

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## Auditor's Finding

The Cyanco Western U.S./Canada Supply Chain is in FULL COMPLIANCE with the International Cyanide Management Code.

The cyanide management practices for Cyanco were evaluated for Cyanide Code compliance using the 2021 version of the ICMI Cyanide Transportation Verification Protocol.

## Compliance Statement

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

## Auditor Information

|                           |  |
|---------------------------|--|
| Audit Company:            | CN Auditing Group<br><a href="http://www.cnauditing.com">www.cnauditing.com</a>  |
| Lead / Technical Auditor: | Ralf Jurczyk<br>E-mail: <a href="mailto:rj@cnauditing.com">rj@cnauditing.com</a> |
| Dates of Audit:           | May 24-26 and May 29-30, 2023  |

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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 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. 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 all the details of the routing of its shipments; however, they do choose the shipping ports, receiving ports, and transportation partners. The risk evaluations associated with this supply chain focus primarily on the selection of the ports to ensure that safety and security standards are acceptable. Infrastructure around the ports is also evaluated for alignment with Cyanide Code criteria. The barge operator was 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.

Both trucking transportation partners in this supply chain, Lynden Transport, Inc. (LTII) and Canadian Lynden Transport (CLT) were audited on-site during this re-certification audit. Both LTII and CLT have implemented processes to address Cyanide Code requirements regarding route selection, route risk assessment, route approval, and driver feedback. Records were available at each location to show that Cyanide Code route determination, risk assessment, and risk mitigation requirements were fulfilled. Population density, road infrastructure, pitch and grade of the roads, and proximity of the routes to water bodies were considered during the route evaluation process.

The choices for routing in Seattle are limited due to the short route across the city and the need to only use designated hazardous material routes (highways). From Skagway Port to Whitehorse to the mine destination there is only one possible route. There was just one mine customer at the time of the audit.

Both trucking companies in this Supply Chain have developed "Journey Management Plans" for the one route driven by each company. Risks such as pitch and grade of roads, traffic congestion, seasonal traffic issues (winter weather and summer tourist congestion), and proximity to water bodies were considered during the development of the routes. Stakeholder input (Cyanco, mine customers, and local authorities) is considered when routes are determined. Appropriate risk mitigation measures include use of lower speeds, avoidance of high congestion time periods or congested roads, and mine road specific risk reduction measures such as check points and two-way communication radios. Risk mitigation measures are also detailed in the Journey

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Management Plans. The most recent revisions of the Plans were 2023.

Both trucking companies maintain processes to periodically re-evaluate routes used for cyanide deliveries. There are limited options for driving the 1.5-mile Seattle route and the route to the mine serviced from the Whitehorse Terminal. There is also only one way to travel from the Skagway Port to the Whitehorse Terminal.

Interviews with drivers and management personnel were used to confirm that feedback about driving conditions is communicated daily at each of the companies audited, as needed. Interviews confirmed that special conditions noted by customers are indicated on the shipping paperwork and communicated to drivers assigned to the routes. Discussions are held if there are any concerns, feedback, or questions. Each company demonstrated that routes were re-evaluated and re-approved during the re-certification period.

Each company documents the risk mitigation measures to be taken for each route. Initially, each route was traveled by the owner of the company, a senior driver, or Cyanco. The risks and risk countermeasures were defined at that time.

The primary risk in Seattle is traffic and congestion. LTII Drivers are trained to drive in heavy traffic and take normal defensive driving precautions. The transportation through the Yukon territory is much more remote and dangerous, depending on weather conditions and seasonal considerations. To manage this risk, CLT Drivers are dispatched two trucks at a time and Drivers always carry satellite phones. CLT also takes precautions related to the thaw (Spring soft shoulder / muddy conditions). Equipment was upgraded to help ensure that axle weight is appropriate, and tires have sufficient tread to minimize slippage. The Journey Management Plans used by the companies reference the risks and the necessary risk management actions. The risk mitigation measures were found to be appropriate by the auditor.

Cyanco seeks input from communities, other stakeholders and applicable governmental agencies in the selection of routes and the development of risk management measures. In Canada, Cyanco interacts with Transport Canada through the Emergency Response Assistance Plan (ERAP) process. Cyanco develops the ERAP, describes the general routes and types of cyanide (solid or solution), and designates an emergency response company (Terrapure Environmental). The plan is approved by Transport Canada and Cyanco re-submits the plan as required by Canadian regulations and if there are any significant changes.

Records were available to show that both trucking companies have participated in stakeholder engagements with Cyanco, mining customers, regulatory agencies, and local communities, where appropriate. During the route planning process both companies also take into consideration input from governmental stakeholders by using route planning software that indicates which roads are either approved or banned for the transportation of hazardous materials.

Where routes present special safety or security concerns, both companies use additional safety or security measures to address concerns. Weather, traffic, and security conditions are constantly monitored, and deliveries are postponed if a route is unsafe. This is more of an issue for CLT with

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transport through the Yukon Territory. Seasonal concerns in Canada due to the thawing of the roads are also considered in the CLT Journey Management Plan. Weight restrictions on the loads are considered when loading trucks. CLT dispatches two trucks at a time to deliver to the mine to ensure that immediate assistance is available should one of the trucks encounter problems during the journey.

The last portion of the CLT route to the mine requires a mine escort. The need for this additional safety measure is included in the Journey Management Plan. Personnel were aware of this requirement. All intermodal containers are sealed to mitigate the risk of having unauthorized personnel access the product during transit. This practice was observed during the audit.

Both LTII and CLT Drivers are empowered to stop a delivery if the conditions are thought to be unsafe. Interviews were used to also confirm that drivers adhere to designated routes and request authorization prior to deviating from the established routes.

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 Supply Chain transportation partner companies do not contract other entities to transport cyanide or to conduct any of the activities required in this Standard of Practice. Cyanco ensures that its transportation partners are assessed for Cyanide Code compliance during third-party Cyanide Code re-certification audits or due diligence assessments.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <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.**

Both trucking companies maintain procedures for the transportation of sodium cyanide. The requirement to only use qualified and commercially licensed drivers with hazardous materials / dangerous goods qualifications is stated in the procedures. Confirmation was made during the audit that drivers at each carrier have received appropriate operational and safety training. Records were available for all current cyanide drivers to demonstrate that qualification and training requirements were met. Cyanco also requires that drivers be properly trained and qualified for cyanide transport as part of its contractual agreements with the carriers.

Both carriers train personnel operating cyanide handling and transport equipment to perform their jobs in a manner that minimizes the potential for cyanide releases and exposures.

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Interviews with drivers, dispatch, management, and maintenance personnel with both carriers were used to confirm that personnel operating cyanide transportation equipment can perform their jobs safely and appropriately. Training related to cyanide and the delivery of cyanide is given by Cyanco via video training. A test is given following the training. Training records from the re-certification period were available for review.

Each carrier maintains training management processes to ensure that driver training is up to date. Intermodal containers are not opened in this supply chain.

The auditor verified that training was provided to all necessary personnel and that it included the elements appropriate for the nature of the transport and responsibilities of the operator. Training records and sign-off sheets were also reviewed.

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| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.2 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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

Cyanco uses only supply chain partners with equipment designed and maintained to operate within the loads it is handling. Shipment records were reviewed to confirm that standard weights within the capacity of the intermodal containers, tractors, trailers, and chassis were being shipped. All transportation equipment used in this Supply Chain was observed during the audit and confirmation was made that it is designed and maintained to safely and effectively operate within the loads it will be handling.

Cyanco also uses only authorized packaging for its solid sodium cyanide shipments. Intermodal containers observed during the audit were in good condition. The practice of inspecting intermodal containers prior to loading was audited during the Cyanco Houston Production re-certification audit in 2022. Cyanco inspects the intermodal 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.

Top pickers observed at the AML port operations in Seattle and Skagway had lifting capacities well above the loaded weight of a sodium cyanide container. All equipment observed was in very good condition.

Transportation equipment at each carrier was observed to be in very good condition and suitable for delivering cyanide. The tractors and trailers used to deliver to mines are enhanced with upgraded equipment and heavy-duty frames to ensure safe travel over rough terrain to the mine

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sites. Tires are replaced on a frequent basis and regular maintenance activities and inspections are conducted. Shipping records were available for the recertification period to demonstrate that equipment is suitable and is not being overloaded.

Standard weights are loaded, and standard blocking and bracing configurations are used for intermodal containers. Transportation equipment was observed to be in very good condition and was deemed suitable for the loads being shipped. The tractors and trailers used for mine deliveries are enhanced with upgraded equipment and heavy-duty frames to ensure safe travel over rough terrain.

Shipping paperwork was reviewed during the audit and showed the number of packages shipped and the weight of the cargo. Specifications for trucks and trailers clearly show that equipment is appropriate for the loads that must be transported.

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| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.3 |
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|                          | <input type="checkbox"/> Not in compliance with             |                          |

**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. These activities are audited during the production audits of each facility. Details are contained in the respective audit reports posted on the ICMI website. Blocking and bracing of solid cyanide in intermodal containers is done by Cyanco using formal procedures and pre-shipment inspections.

Both carriers were confirmed to have formal safety programs that clearly address all Cyanide Code safety program requirements. Formal procedures and training programs are used to ensure that cyanide is transported in a manner that is safe and protective of the transportation packaging. Intermodal containers are sealed and are not opened during transit using this supply chain. Containers are attached to the chassis using corner twist locks (securement pins). All transport parameters were observed to be typical for the transport of intermodal containers.

Cyanco uses placards and other signage to identify the shipment as cyanide, as required by local regulations and international standards. The UN packaging number UN 1689 is displayed on all intermodal containers. All containers observed during the audit had multiple UN 1689 and marine pollutant placards.

Vehicle inspections are done prior to every shipment and preventive maintenance is performed every 30-90 days, and as necessary, depending on equipment type. Pre-trip inspection and preventive maintenance records for the recertification period for both carriers were available for

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review during the audit.

Driver hours are limited by U.S. and Canadian transportation regulations. Confirmation was made by the auditors that each carrier monitors driver hours to ensure compliance. Dispatch and delivery records for the recertification period were reviewed during the audit and were found to be acceptable.

Carriers confirmed that attachment points for trailers and intermodal containers are inspected as part of the pre-trip inspection process. Auditors confirmed through observations that loads were appropriately secured. The containers are sealed and are not opened during transit using this supply chain. Cyanco blocking, bracing, and pre-shipment practices were audited during the Cyanide Code production audits.

Weather conditions are constantly monitored, and deliveries are postponed if a delivery would be unsafe to carry out. Drivers are empowered to stop a delivery if the conditions are unsafe. Interviews were conducted with drivers and procedures were reviewed during the audit to confirm that drivers are empowered to modify or suspend a shipment if unsafe conditions exist. Such a change in delivery plans would be made in close coordination with the carrier dispatcher and with the mining customer. Drivers showed good awareness of the need to adhere to designated routes and request authorization prior to deviating from the established routes or transportation plans.

Random drug and alcohol testing is done in accordance with U.S. and Canadian regulations. Records for the recertification period were available to show that all parts of the safety program, including drug testing, are effectively implemented by each carrier.

Cyanco and its carriers have implemented safety programs for cyanide transport that include all Cyanide Code required considerations. Safety Program records were available to show that all parts of the safety programs throughout the supply chain have been effectively implemented and continue to be well-managed.

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| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.4 |
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|                          | <input type="checkbox"/> Not in compliance with             |                          |

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

Drivers at both carriers have communication equipment consisting of at least cell or satellite phone, and most drivers always have multiple communication systems available to them. CLT uses satellite phones, radios on mine roads, and cell phones, where service is available. Drivers always have the means to communicate. This practice was confirmed through interview and observation during the audit.

All communication equipment is confirmed to be operational at the start of each trip. Interviews were conducted to confirm that these practices have been in place for the entire recertification period for each trucking company. Cell phone blackout areas are identified by the trucking company during the route planning process. The CLT Dispatcher ensures that the driver has a working satellite phone and a radio. In addition to the pre-trip inspections to confirm the functionality of communication equipment, CLT tests its satellite phones monthly. Communication equipment was found to be in good working order for both trucking companies.

There are no blackout areas on the 1.5-mile Seattle route from the Union Pacific Railhead to the AML port operations in Seattle. Blackout areas were identified for the routes driven by CLT during the journey planning process. For this reason, the CLT Dispatcher ensures that the driver has a working satellite phone upon dispatch. The Drivers also have a radio for use on the mine road. Communication equipment was found to be in good working order for both trucking companies.

Trucks are always in contact with dispatch by cell phone, satellite phone, or onboard communication systems. Both companies use onboard communication systems that also provide Global Positioning System (GPS) information constantly. The system used by CLT is satellite based and ensures that shipments can be tracked, even if there is no cell phone service.

The GPS tracking systems provide the vehicle position in real time, indicating at what time it passes through the geofences, the vehicle and driver data, among other useful information. The GPS tracking capability was confirmed during the audit.

Shipping paperwork reviewed during this assessment was found to be conformant to Cyanide Code requirements, including chain of custody requirements.

Both companies maintain chain of custody documentation to prevent the loss of cyanide during shipment. Containers are not opened; they remain sealed. Records showing appropriate levels of custody control were available and found to be acceptable.

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 with Cyanide Code requirements. All shipments are accompanied by the appropriate Safety Data Sheet (SDS) which is available to drivers and other members of the supply chain during transport. This practice was confirmed during the audit.

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| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.6 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> 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 ports and CLT in Whitehorse, Yukon. Whitehorse, under normal operational and weather conditions, is not used as an interim storage location. It was evaluated during this audit, however, to ensure that the occasional storage of the cyanide in Whitehorse is allowed, as necessary.

CLT interim storage operations were confirmed to be compliant. Signs are used in the storage yard when cyanide is present. Warning signs prohibit smoking, open flames, eating, and drinking. PPE requirements are also posted.

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

CLT Whitehorse interim storage operations were confirmed to be compliant with Cyanide Code requirements. The CLT interim storage yard is fenced and always secured. There is no unauthorized access to cyanide. The intermodal containers are also sealed throughout the transportation using this supply chain. Intermodal containers are not opened.

No incompatible materials are stored in the CLT yard. This was confirmed through interview and observations during the audit.

CLT interim storage operations were confirmed to be compliant. CLT only occasionally stores containers for a short period of time, typically less than a day. The intermodal containers are not lifted off the truck chassis. The intermodal containers are also always sealed. Intermodal containers are not opened, and the sodium cyanide is shipped/stored in multiple layers of

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packaging. The potential for contact of sodium cyanide with water is thereby minimized.

Throughout this supply chain, including at CLT, intermodal containers remain closed, sealed, and stored outside. There is no opportunity for cyanide gas build up.

The interim storage yards are used for temporary parking of the equipment loaded with solid sodium cyanide. The interim storage yard is gravel and daily inspections are done to check for the highly unlikely event of a container breach. This was found to be acceptable by the auditor.

**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.

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. In addition to this global plan, Cyanco also maintains a Canadian Emergency Response Assistance plan (ERAP), as required under Canadian transportation laws.

Each carrier maintains its own emergency response procedures. LTII has three documents, a Contingency Plan Incident Notification and Reporting procedures in Chapter 2.02 of the Industrial Health and Safety Manual, and LTI Lynden Emergency Contacts document. CLT maintains a very detailed Emergency Response Plan with extensive information that can be referenced if there were a cyanide emergency.

The Cyanco GTERP was found to be suitable and appropriate for this supply chain, routes, physical form of the cyanide shipped (solid), method of transportation and/or interim storage,

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transportation infrastructure, and design of the transport vehicles/containers (1-ton box in intermodal container) and design of the interim storage facilities (Whitehorse and ports).

Only solid sodium cyanide is shipped using this supply chain. Emergency response procedures 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 1-ton box in intermodal container configuration, among others. The plan considers 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 ERPs were found to be suitable and appropriate for the operations, routes traveled, physical form of the cyanide (solid), method of transportation and/or interim storage, transportation infrastructure, and design of the transport vehicles/containers and design of the CLT interim storage facility in Whitehorse.

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 the plans and emergency response information clearly outline the roles and responsibilities of internal and external responders.

Cyanco offers cyanide safety training to its carriers and the role of the carriers is clearly stated as being 1) protect yourself, 2) make necessary notifications according to company plans, and 3) secure the area. The emergency plans are aligned with this guidance. The CLT ERP also has additional information about the decontamination of people and equipment and cyanide exposure. Since LTII is operating in Seattle with ready access to 911 emergency response and CLT is more remote, the auditor found the additional detail in the CLT ERP to be appropriate.

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 references to emergency responders are less detailed in the emergency plans, but the CLT ERP does have telephone numbers for local police, firefighters, and hospitals along the routes. Again, LTII and CLT essentially notify emergency responders and provide information when requested to do so.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 3.1 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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

Cyanco has provided emergency response training to transportation partners and ensures that its partners also provide additional emergency response training to their personnel. The effectiveness of the training is confirmed through on-site auditing, multi-organizational emergency response drills, and performance reviews during contractual negotiations.

Drivers, managers, and maintenance shop personnel at each organization receive an appropriate level of training to enable them to fulfill their role in emergency response. Formal emergency response training is refreshed annually. Training records were available for the recertification period and were complete.

The roles and responsibilities of relevant internal and external personnel are clearly described in the emergency plans maintained by each part of the supply chain. The overall role and responsibility descriptions are maintained in the Cyanco GTERP and cascaded down into the individual emergency response plans, as appropriate. The Canadian ERAP also details the specific emergency responders, their role, and contact information. Interviews with personnel at each company confirmed that there was good awareness of the roles and responsibilities in the event of an emergency.

The emergency plans list the emergency equipment that is to be maintained on the trucks and at the Whitehorse interim storage yard. The primary role of trucking personnel is a notification role. The emergency equipment maintained by the companies is limited to basic equipment like fire extinguisher, warning triangles, hard hat, gloves, and high visibility outerwear.

The emergency equipment on the trucks is checked during the pre-trip inspection and the interim storage equipment is checked monthly at the Whitehorse yard. The equipment was available on the trucks and at Whitehorse during the audit.

The Cyanco GTERP includes descriptions of response actions, as appropriate for the anticipated emergency situations. Cyanco 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 the plans and emergency response information clearly outline the roles and responsibilities of internal and external responders.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 3.2 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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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.

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. The CLT ERP was last updated in 2023.

The Cyanco GTERP and the CLT ERP detail the need to notify ICMI within 24-hours in the event of a significant cyanide incident.

- 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.**

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. Interviews confirmed that trucking and interim storage operations would contact Cyanco for guidance regarding the need to perform any significant clean-up or neutralization operations in response to a cyanide spill or release.

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:**
- In full compliance with Standard of Practice 3.4
  - In substantial compliance with
  - Not in compliance with

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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. CLT reviews its ERP on an annual basis.

Cyanco periodically reviews its emergency response plans and evaluates the plan’s adequacy. 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.

The CLT Emergency Response Plan (ERP) states that the Director of HSE will review the ERP at least annually and any necessary updates will be made at that time. The ERP was revised within the past year and the information was found to be current and appropriate.

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 drill critique was done after the emergency drills during the recertification period. Cyanco also had records from an “After Action” report that was developed, and formal corrective actions were opened and tracked to closure. Records were reviewed and were accepted by the auditor.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 3.5 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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# Alaska Marine Lines (AML) Barge Operator Due Diligence Investigation Results

## 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.**

Alaska Marine Lines (AML) was confirmed to be compliant with all Cyanide Code requirements during the onsite due diligence assessment at Seattle Port and the Port of Skagway, Alaska. Routes between the Port of Seattle and the Port of Skagway are evaluated for risk and the shortest, calmest routes are chosen. The risk of having poor weather conditions is 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 its destination port. 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. This information was confirmed onsite with AML personnel at the Port of Seattle and the Port of Skagway during the due diligence assessments.

- 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.**

AML reported that employees are trained in the transportation and handling of hazardous materials. The training is given initially and then annually thereafter. Annual cyanide-specific training is also given to personnel using the cyanide safety / emergency response videos provided by Cyanco. Confirmation was made during the due diligence review that AML and ports have personnel who are properly trained to handle hazardous materials.

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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 AML 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.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.5 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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

The barge operator, AML, uses state-of-the-art GPS tracking systems to transmit real-time barge location data. This was demonstrated during the assessment. Inventory controls, including the recording of seal numbers and container numbers by AML personnel upon receipt by, and dispatch from the ports. Inventory controls were found to be appropriately implemented by AML and both ports.

|                          |   |                          |
|--------------------------|---|--------------------------|
| <b>The operation is:</b> | <input checked="" type="checkbox"/> In full compliance with | Standard of Practice 1.6 |
|                          | <input type="checkbox"/> In substantial compliance with     |                          |
|                          | <input type="checkbox"/> Not in compliance with             |                          |

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## 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.**

The AML port operations in Seattle and Skagway were both found to have sufficient security and infrastructure to assure the proper management of the cyanide shipments. The intermodal containers are not stored at the ports for long periods of time. The ports are limited to being allowed to store up to four containers at a time and the Port of Skagway must notify the local fire department when cyanide will be stored at the port overnight. The port facilities are usually just used as short-term staging locations until the cyanide can be loaded onto the next barge departure or truck transport using CLT drivers dispatched from Whitehorse.

Additional port due diligence information is included in the Port Due Diligence section of this report.

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

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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.**

The barge operator (AML) and U.S. Ports and their emergency plans and resources are governed by the U.S. Coast Guard and U.S. Federal Department of Homeland Security requirements. Emergency response plans for Alaska Marine Lines, the port operations in Seattle and Skagway ports were reviewed during the due diligence assessment and were found to be acceptable.

- 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 the barge and at the ports, the emergency response would be conducted by trained personnel with shore side and local emergency responder support and guidance.

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

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

Contact numbers and reporting information are reviewed at least annually, or as needed. Supply Chain partners confirmed during the due diligence assessment that formal processes are used to maintain contact numbers and reporting information current.

- 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.**

AML confirmed that it 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.**

AML reported that it performs emergency response tabletop and hands on drills for its barge and port operations. The need for drills and follow-up after responding to an emergency and/or having a drill is regulated by the U.S. Coast Guard and Safety of Life at Sea (SOLAS) regulations.

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

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## Port Due Diligence Investigation Results

Ports used in this supply chain include the AML port operations located in the Port of Seattle, Washington and the Port of Skagway, Alaska.

On-site evaluations were performed for each port operation within the scope of this audit as part of this Cyanide Code re-certification audit. No negative issues, spills, or cyanide exposures were reported during the re-certification period from either port.

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, lifesaving equipment, radio communications, safety of navigation, transportation of dangerous goods, management of safe operations of ships, and maritime security.

Regarding 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.

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The results of the on-site due diligence assessments performed during this 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   |
|-----------------------------|--|
| Port Security               | <ul style="list-style-type: none"> <li>Both port facilities in this supply chain are 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 containers; security cameras.</li> </ul> |
| Safety & Training           | <ul style="list-style-type: none"> <li>The port operations are all currently handling 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>  |
| Material Handling & Storage | <ul style="list-style-type: none"> <li>Dangerous Goods cargo is stored using standard chemical compatibility management practices at each port.</li> </ul>   |
| Emergency Response          | <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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