

INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Transportation Re-verification Summary Audit Report

of



Chemours, Inc.

US/Canada Rail & Barge Supply Chain

To The

International Cyanide Management Code

December 2016 Transportation Verification Protocol

Environmental Technology & Management

SUMMARY AUDIT REPORT

Name of Cyanide Transportation Operation: **Chemours US/Canada Rail & Barge Supply Chain**

Name of Operation Owner: **Chemours, Inc.**

Name of Operation Operator: **Chemours, Inc.**

Name of Responsible Manager: **Mr. Brian R. Morris, Global Product Stewardship Manager**

Address: **2571 Fite Road**

City: **Memphis**

State/Province: **TN**

Country: **USA**

Telephone: **(901) 353-7420**

Location detail and description of operations:

On January 23-24, 2017 Environmental Technology & Management conducted a re-verification audit of Chemours US/Canada Rail & Barge Supply Chain to the Transport Practices of the International Cyanide Management Code. This supply chain was originally certified to the ICMI Cyanide Code in 2010 and recertified in 2014. Chemours (formerly E.I. DuPont de Nemours) was one of the original Cyanide Code signatory companies obtaining Cyanide Code certification for its Memphis Solid Cyanide Plant and its packaging operations in June 2006.

Chemours contracts with Rail Carriers to transport cyanide briquettes, packaged and loaded in intermodal Sea Containers or boxcars, or bulk loaded into hopper cars, from the Memphis Manufacturing and Packaging Plants to rail yards and ports located in Fairbanks, Alaska, Laredo, Texas, Nogales, Arizona, Seattle, Washington, Vivian, Nevada, Montreal, Quebec, Canada, and the Ports of Harbor Island (Seattle), and Whittier, AK. Chemours uses rail carriers whenever feasible because of their inherently safer performance, compared to truck transport. As a condition of their contracts with Chemours, the rail carriers must comply with applicable environmental, health, safety, and security (EHSS) regulations which align closely with ICMI Cyanide Code requirements. Chemours determines through Due Diligence evaluations and periodic performance reviews of the rail carriers that they are indeed complying with Chemours' requirements and applicable regulations.

Chemours Product Stewards also perform due diligence evaluations on the barge carrier and ports used in the supply chain. These due diligence reports were audited as part of this re-verification to confirm that due diligence evaluations continued to include International Cyanide Management Code criteria. Chemours Product Stewards go further to evaluate transportation between the destination terminals and consignees as part of Chemours' First Order Process, and re-evaluate these supply chain legs during periodic visits to consignees. Rail carrier Due Diligence Reports and Port Trip Reports from the last 3 years were reviewed as part of this audit.

Detailed Description of the US/Canada Rail & Barge Supply Chain:

Chemours US/Canada Rail & Barge Supply Chain begins at the Memphis Manufacturing Plant and at the LSI Terminal adjacent to the plant, where solid sodium cyanide briquettes are manufactured and packaged. The US/Canada Rail & Barge Supply Chain includes transportation from the Memphis Plant

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

by rail to rail yards and rail heads in Laredo, TX, Nogales, AZ, Seattle, WA, Carlin, NV and Montreal, QE. From there, cyanide shipments interface with other supply chains, e.g. the Nogales and Laredo yards feed the Mexico Supply Chain, covered in a separate report, and from the Seattle rail head, a Code Signatory truck carrier, Alaska West Express, drays containers a short distance to Harbor Island Port. At the Port, containers are transferred from trucks to rail cars and those rail cars are loaded on barges for ocean transport to the Port of Whittier, AK. At Whittier, containers are transported by rail to Fairbanks, AK, after which they are transported by a Code Signatory Alaska West Express to consignees.

The scope of this re-verification audit includes the following:

- All rail transport of cyanide that originates in the Memphis area and at the Carlin, NV facility, except for that associated with the Global Ocean Supply Chain
- Chemours' processes used to manage the rail and barge transport of its products
- Due diligence evaluations of the rail/barge transportation to Alaska, and
- Due diligence evaluations of rail carriers

The carriers associated with this supply chain for which due diligence investigations were performed are:

- 1) Union Pacific Railroad (UP)
- 2) Canadian National Railway (CN)
- 3) Alaska Railroad Company (ARRC)
- 4) Alaska Marine Lines (AML) (Contracted by ARRC for barge movements to Whittier, AK)
- 5) Sea-Pac Transportation Services, LLC (Interim Storage & Intermodal transfer at the Port of Seattle)
- 6) Alaska West Express (Code Signatory Truck Transporter serving as dray carrier from the UP Rail Head, in Seattle, and delivering to consignees in Alaska from Whittier and Fairbanks terminals. No due diligence was necessary)

Conduct of the Re-verification Audit

The re-verification audit of Chemours' US/Canada Rail & Barge Supply Chain took place on January 23 and 24, 2017 in Chemours' Wilmington, DE offices. Chemours internal standards, policies, procedures and records regarding the management of the supply chain were reviewed during discussions and interviews with company employees in key functional roles. The auditor concluded that Chemours operations continued to meet all requirements of the ICMI Transportation Code over the three year certification cycle. The auditor also reviewed due diligence evaluations of rail carriers, the barge carrier and ports within the supply chain, following the on-site portion of the re-verification audit. Reviews confirmed that these supply chain components continued to meet all applicable ICMI requirements. The only change to processes during this cycle was the recent change in dray carriers at the Port of Seattle from Intercity Express, a transporter verified to the Transportation Code in 2014, to Alaska West Express, a Code Signatory.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

SUMMARY AUDIT REPORT

Auditor's Finding

This operation is

- in full compliance
- in substantial compliance with the International Cyanide Management Code.
- not in compliance

Furthermore, the auditor verified that there have been no significant changes to policies and procedures for the management of cyanide, no significant releases or exposures and no compliance issues over the past three years associated with this supply chain. The only change to processes during this cycle was the recent change in dray carriers at the Port of Seattle from Intercity Express, a transporter verified to the Transportation Code in 2014, to Alaska West Express, a Code Signatory.

Audit Company: **Environmental Technology & Management**
 Audit Team Leader: **John B. (Jack) McVaugh, PE, RCMS/EMS-LA**
 E-mail: **jbkm.etm@att.net**
 Names and Signatures of Other Auditors: **NA**
 Date(s) of Audit: **January 23-24, 2017**

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

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

<u>Chemours US/Canada Rail & Barge Supply Chain</u>		<u>July 7, 2017</u>
Name of Facility	Signature of Lead Auditor	Date

<u>Chemours US/Canada Rail & Barge Supply Chain</u>		<u>January 23-24, 2017</u>
Name of Facility	Signature of Lead Auditor	Audit Date

SUMMARY AUDIT REPORT

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.*

The operation is in full compliance with
 in substantial compliance with Transport Practice 1.1
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.1. Chemours opts for rail transport of cyanide products over truck transport, where feasible because of the inherently safer performance rail affords. Chemours selects rail carriers that offer the most direct routes to destination points in order to minimize potential for accidents and releases. Through its contract provisions Chemours also requires its rail carriers to comply with all applicable regulatory requirements, including performing route risk analyses in conformance with the Federal Railroad Administration (FRA) Hazmat Rail Routing Rule (49 CFR 172.820). The FRA Hazmat Rail Routing Rule considers population density, rail construction and condition, track grade and curvature and environmentally sensitive areas. The FRA Hazmat Rail Routing Rule evaluates the risks of selected routes, considering measures to address apparent safety and security risks. Chemours' rail carriers periodically meet with the company to discuss measures being taken to mitigate identified risks. Chemours' rail partners have their own police departments, who work with local police departments and special agents to monitor and secure rail yards against trespass or criminal activity. The FRA Rule requires Chemours' rail partners to reevaluate each route annually. Chemours monitors the regulatory compliance posture of its rail carriers to ensure its contractual requirements are being met. The FRA Hazmat Rail Routing Rule, in itself input from a government agency, suggests interactions with communities and other stakeholders in selection of routes. Community and stakeholder interaction is most apparent during and following TRANSCAER events. Furthermore, the Union Pacific Railroad and the Canadian National Railway are certified to the Responsible Care Management System[®] which requires third party auditors to verify rail carrier processes that consider stakeholder perspectives. Chemours' rail partners report that they have emergency response plans. Chemours also has a complete Emergency Response Plan, which is described in Section 3 of this Report. Chemours subcontracts all its cyanide transportation to its transport partners. Where possible, it uses its standards, policies, guidelines and formal contracts containing safety, health, environmental and security terms and conditions to ensure that its transport partners meet the requirements of this Transport Practice. Chemours ensures these that measures are followed through due diligence reports, site visit reports and by periodic meetings with carriers.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

Transport Practice 1.2: Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

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

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.2. Personnel with Chemours' rail partners are required by law to be trained, qualified and licensed to operate transport vehicles. Additionally, all must receive HazMat training and many take advantage of Chemours' offer to present Cyanide Awareness Training. Furthermore, the Union Pacific Railroad and the Canadian National Railway are certified to the Responsible Care Management System[®] which requires competency for all those whose work could impact environmental, health, safety and security (EHSS). Also, by using non rail transporters that are certified to the Code or have been audited as part of a certified supply chain, Chemours is assured that only trained, qualified and licensed operators are used by its transportation partners.

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 1.3
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.3. Chemours only uses equipment designed and maintained to operate within the loads it will be handling. The Chemours Memphis Production Plant Reverification in 2016 provided ample evidence that Chemours manufacturing personnel verified the adequacy of the equipment for the load it must bear, over the past three years. Gross (packaged) product weight, container and rail car tare weight and dunnage on shipping papers audited were far below Maximum Payload weights specified for containers and rail cars. Chemours has a third-party maintenance provider for containers and rail cars, and proper maintenance is verified by inspections performed by Chemours manufacturing site personnel. Checklists are used for these inspections. The Chemours Memphis Production Plant Reverification in 2016 provided ample evidence that Chemours manufacturing site personnel use a checklist and weigh loaded rail cars to ensure that Maximum Payload is not exceeded. ISO containers are leased by Chemours and are maintained by shops under contract with Chemours Corporate Logistics.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 1.4
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.4. Chemours loads sodium cyanide briquettes into its specially designed IBC's, loading those into Sea Containers and box cars, then sealing them after loading. Chemours has procedures in place to ensure packaging integrity during transport, including blocking and bracing techniques. Chemours manufacturing site personnel inspect the exteriors of Sea Containers and box cars for any sign of damage or leaking product before leaving the pick-up location. Chemours is committed to transport shipments of cyanide by sea in compliance with the Dangerous Goods Code, Safety of Life at Sea (SOLAS) of the International Maritime Organization and subscribing to the Chemical Distribution Institute – Marine Packed Cargo (CDI-MPC) program to prevent shifting cargoes. Placards are installed by Chemours manufacturing personnel and are checked by drivers for shipments in this supply train by truck. The auditor confirmed through photographic evidence that boxcars, Sea Containers and ISO Containers are marked with proper DOT placards and other signage identifying the DOT Hazard Class 6.1. The number UN1689 is displayed in lieu of the words "Toxic" or "Poison". Chemours manufacturing site personnel inspect the exteriors of ISO Containers, Sea Containers and box cars for any sign of damage or leaking product before leaving the pick-up location. Inspection checklists audited include looking for any evidence of bulges, dents and holes, powder, unsealed doors and locks on the container, and an inspection of the truck and chassis.

Chemours has a third-party maintenance provider for rail cars that is required to have a preventive maintenance (PM) program on all equipment. The PM program must be documented and records maintained on file and open for audit by Chemours. Federal Railroad Administration rules restrict locomotive engineers to be on-duty no more than 12 hours per day. Chemours requires its transport partners to comply with all applicable laws and regulations, and monitors their compliance posture through periodic performance review meetings. Chemours policies and procedures call for the suspension of shipments that could be impacted by severe weather, such as a hurricane or typhoon or by civil unrest. Chemours' transport partners have such policies and procedures, as well. Chemours has language in contracts with transportation partners that requires them to have a documented Drug and Alcohol abuse prevention and test procedure. Such programs are also required by law. Due diligence verifies that partners have such programs.

The Chemours Memphis Production Plant Reverification in 2016 provided ample evidence that Chemours maintains records of inspections performed by their personnel. The maintenance contractor must keep record of its railcar preventive maintenance and repair activities, for potential audit by Chemours. Records maintained by rail carriers are required by law. Chemours has language in contracts with the truck carriers within its supply chains that requires them to maintain records of all training

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

conducted by the carrier and Chemours, accidents and incidents, driver hours of service, where applicable, equipment inspections and preventive maintenance program.

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 1.5
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.5. Chemours is committed to transport shipments of cyanide by sea in compliance with the Dangerous Goods Code, Safety of Life at Sea (SOLAS) of the International Maritime Organization and subscribing to the Chemical Distribution Institute – Marine Packed Cargo (CDI-MPC) program to prevent shifting cargoes. The auditor verified Chemours' compliance items by reviewing packaging specifications, shipping documents, container loading procedures and photos of placarded and labeled containers. Chemours does not transport cyanide by air.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 1.6. In Due Diligence reports the rail carriers list the following means of communication internally: Radio is the primary communication tool, followed by hand signals, followed by Cell Phone (in emergency use only & after a series of checks/balances has been followed to determine its safety). Also in Due Diligence reports the rail carriers confirmed that their communication devices were regularly tested. Chemours is not aware of any areas in this supply chain where a rail crew would not be able to receive radio communication. However, if a crew were ever to lose radio contact, then procedures require them to resort to use of hand signals, followed by cell phones. Chemours uses Quality Transportation Systems (QTS) software to track the progress of cyanide shipments by gathering Car Location Messages (CLM's) from the railroad. The location of cars can be determined through these CLM's. The auditor verified that Shipping Documentation including the Bill of Lading and Intermodal Equipment Receipt (IER) satisfies the inventory control and chain of custody requirements of this transportation practice. In Seattle, the dray carrier, which is a Code Signatory, picks up loaded, sealed containers at the rail head and delivers them to the Port directly, for loading on railcars. Seal numbers are recorded on shipping papers and drivers verify

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

that the seals are intact at the point they take possession at the rail head. The auditor sampled shipping documentation packages from 2014 through 2016 and found them all to indicate the amount of cyanide in transit plus include an MSDS and emergency notification sheet. Due Diligence reports reviewed for this audit indicated that all rail carriers have MSDS's for every product they transport, in a database. Truck carriers are required by Chemours to pass along the paperwork received to the consignee, as appropriate, and Chemours verifies implementation through the First Order Process and site visit reports, both of which were reviewed during this audit. The amount of cyanide in transit is indicated on the Straight Bill of Lading and Intermodal Equipment Receipt (IER). Drivers in Cyanide Service are required to carry a Transportation Emergency Information Sheet and an MSDS. Furthermore, drivers are required to have the shipping papers and safety information within their reach while their seat belt is fastened.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

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

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 2.1. While Chemours does not design, construct or operate cyanide trans-shipping depots, the ports and rail yards form critical junctions in this supply chain, and are trans-shipping depots, according to ICMI guidance information, since shipments may change transportation modes and they may remain at the location for a day or more. According to Due Diligence Reports and Visit Reports, all domestic ports in current use have some type of warning signs posted to alert their workers to the presence of dangerous goods. Moreover, U.S. ports must comply with strict US Coast Guard and Department of Homeland Security rules to prevent unauthorized access to the port. Chemours' rail partners have their own security forces, who work with local police departments and special agents to monitor and secure rail yards against trespass or criminal activity. At all ports and rail yards, packaged or bulk cyanide product remains in its original boxcar, hopper car, Sea Container or ISO Container, inspected for integrity, loaded and sealed by Chemours personnel, so that the potential for contact with water, or for mixing with incompatible materials is negligible. In all cases, any interim storage of containers at ports and rail yards occurs outside, not in any building or enclosure. Thus, there is adequate ventilation to prevent build-up of hydrogen cyanide gas. Due Diligence Reports indicate that the ports temporarily store dangerous goods in containment areas. Rail yards and ports alike describe some type of spill response capability by their own personnel or local emergency responders.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

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

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 3.1. Chemours two main emergency response documents, Chemours Cyanides Global Response Plan for Off-site Incidents and Cyanides Emergency Response Guidelines adequately address all the requirements in Section 3 of the ICMI Transportation Protocol. The Cyanide Global Emergency Response Plan Flowchart explains notification pathways, including circumstances where Chemtrec will notify the Chemours Cyanide Hotline which triggers implementation of the Cyanides Global Response Plan. Chemours manages emergency response for the entire supply chain utilizing this plan. Due Diligence reports indicate that all rail transportation partners have emergency response plans of their own. The Cyanides Global Response Plan for Off-site Incidents and Cyanides Emergency Response Guidelines address emergency response for liquid and solid sodium and potassium cyanide by truck, ocean and rail transportation over all transportation routes, and at all ports and rail yards which may serve as interim storage facilities. The Plan and Guidelines address emergency response for all aspects of the transport infrastructure including condition of the road, railway, port, etc., the design of transport vehicles, include descriptions of response actions, as appropriate for the anticipated emergency situation and identify the roles of outside responders, medical facilities or communities, in emergency response.

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 3.2
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 3.2. Chemours and/or its transportation partners have provided emergency response training to the personnel selected for transportation of sodium cyanide, particularly with regard to its Emergency Response Notification procedures, during the last three years. The Chemours Cyanides Global Response Plan for Off-site Incidents and Cyanides Emergency Response Guidelines as well as a carrier specific document

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

entitled Cyanide Transportation Policy & Procedures describe the specific emergency response duties and responsibilities of personnel. For example, truck drivers are responsible for implementing the company’s Emergency Response Notification, while seeking an elevated upwind position of safety and, if possible, diverting pedestrian and vehicular traffic. The Chemours Cyanides Global Response Plan for Off-site Incidents includes a list of all emergency response equipment that should be available during transport or along the transportation route. The Basic Equipment List for the Emergency Response Team in the Response Plan includes necessary emergency response and health and safety equipment, including personal protective equipment recommended during cyanide transport. Chemours and/or its transportation partners provide initial and periodic refresher training in emergency response procedures to the personnel selected for transportation of sodium cyanide, particularly with regard to its Emergency Response Notification procedures. Annual refresher training may be carried out using the on-line Chemours E-Learning Suite. The Chemours Cyanides Global Response Plan for Off-site Incidents requires monthly inspection of emergency response equipment wherever it is located. Chemours uses contract carriers, or transportation partners, for all its cyanide transportation by sea, rail and truck. Chemours’ policies and procedures require clear delineation of roles and responsibilities of transportation partners during an emergency response. Chemours ensures that these measures are received and understood during training sessions and by conduct of due diligence audits.

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 3.3
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 3.3. The Chemours Cyanides Global Response Plan for Off-site Incidents, Cyanides Emergency Response Guidelines and carrier specific Cyanide Transportation Policy & Procedures specify contact information and notification procedures meeting the requirements of this Transport Practice. In addition, a Transportation Emergency Information Sheet is attached to the Bill of Lading on every shipment. The Chemours Cyanides Global Response Plan for Off-site Incidents requires review of emergency response plans and procedures, and revision as necessary, following emergency drills and incidents in which the procedures were deployed, but no less than annually. The auditor verified compliance with this requirement by reviewing records of drills held during Chemours Cyanide Products Ocean/Rail Seminars and the revision history of the Plan. No incidents have occurred within this supply chain in the last three years.

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



Chemours US/Canada Rail & Barge Supply Chain

January 23-24, 2017

Name of Facility

Signature of Lead Auditor

Audit Date

The operation is in full compliance with
 in substantial compliance with Transport Practice 3.4
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 3.4. The Chemours Cyanides Global Response Plan for Off-site Incidents and Cyanides Emergency Response Guidelines include procedures for remediation, such as recovery or neutralization of solutions or solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris. The Plan and Guidelines include procedures that prohibit the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water.

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

The operation is in full compliance with
 in substantial compliance with Transport Practice 3.5
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Chemours US/Canada Rail & Barge Supply Chain is in full compliance with Transport Practice 3.5. The Chemours Cyanides Global Response Plan for Off-site Incidents requires review of emergency response plans and procedures, and revision as necessary, following emergency drills and incidents in which the procedures were deployed, or periodically in the absence of these events. However, there have been no incidents in at least the last 3 years requiring implementation of the Plan within this supply chain. The auditor verified implementation by reviewing records of drills held during Chemours Cyanide Products Ocean/Rail Seminars and the revision history of the Plan. No incidents have occurred within this supply chain in the last three years requiring implementation of these procedures. The Chemours Cyanides Global Response Plan for Off-site Incidents includes procedures requiring periodic "Table Top" or "Hands On" emergency drills to take place. Chemours Product Stewards verify implementation of drills by truck carriers during site visits. Due Diligence Reports confirm that rail carriers and ports conduct emergency drills, as well, including hazardous material spill drills.

Chemours US/Canada Rail & Barge Supply Chain

Name of Facility



Signature of Lead Auditor

January 23-24, 2017

Audit Date

Review of Supply Chain Due Diligence Reports

In order to complete the re-verification of Chemours US/Canada Rail & Barge Supply Chain, the auditor reviewed reports of due diligence investigations carried out by Chemours on its rail carriers, including the Canadian National, Union Pacific and Alaska Railroad. Reports covered the US portion of shipments of sodium cyanide from Woodstock, TN to the Hermosillo warehouse in Ciudad Industrial, SO, Mexico, the SIP warehouse in San Luis Potosi, SL, Mexico, the Carlin warehouse in Vivian, NV, and the Octium Solutions facility in Malartic, PQ, Canada.

Separate due diligence reports covered the supply chain as Sea Containers move from Memphis, TN to Union Pacific's Seattle, WA railhead, then a short drayage move by a signatory truck carrier, Alaska West Express (AWE) to the Port at Harbor Island (Seattle), where Seapac transfers them from truck chassis to railcar and then loads these railcars onto Alaska Marine Lines (AML) barges for ocean transport to Whittier, AK. Alaska Railroad (ARRC) then transports these cars to an interim storage yard in Fairbanks, AK operated by code signatory truck transporter, Alaska West Express (AWE). AWE offloads the containers from the railcars and transports them to consignees.

Chemours Regional Product Stewards created the Due Diligence Audit - Cyanide Transportation Verification Protocol, which captured all relevant requirements from the ICMI Code. Rail carrier representatives met with Chemours Product Stewards and completed the protocol forms with details of their safety practices. Chemours completed due diligence protocols for the other entities in the supply chain, such as Seapac, AML and ARRC, by teleconference or face-to-face meetings. The auditor reviewed all due diligence reports and concluded that all entities in this supply chain have maintained compliance with the ICMI Transportation Code over the past three years. Furthermore, the due diligence reports verified that there have been no significant changes to policies and procedures for the management of cyanide, no significant releases or exposures and no compliance issues over the past three years associated with this supply chain. The only change to processes was the recent change in dray carriers at the Port of Seattle from Intercity Express, a transporter verified to the Transportation Code in 2014, to Alaska West Express, a Code Signatory.

<u>Chemours US/Canada Rail & Barge Supply Chain</u>		<u>January 23-24, 2017</u>
Name of Facility	Signature of Lead Auditor	Audit Date