# ICMI Cyanide Code Transportation Certification Audit Summary Report

## Empire Express, Inc. Memphis, Tennessee - USA

#### **Submitted to:**

The International Cyanide Management Institute 1400 I Street, NW – Suite 550 Washington, DC 20005 USA

2013 Audit Cycle





### **Company Information:**

Name of Empire Express, Inc. Operation: 999 Channel Avenue

Memphis, TN 38106

Name and contact Richard Tolbert

**information for** Vice President of Safety **Empire Express** Phone (901) 942-3300 ext 304

**Contact:** Fax (901) 251-1295

richard@empireexpress.com

#### Location detail and description of operation:

Empire Express has been an established trucking operation in Memphis, TN since 1985. The company has been transporting sodium cyanide long distance in North America for DuPont since 2002. The operation was audited and was found to be in full compliance to the ICMI Cyanide Code in 2010. Empire Express is also a Responsible Care® Partner Company and has maintained a certified Responsible Care Management System® since 2008. Empire Express uses its management system to fulfill ICMI Cyanide Code and other environmental, safety, health, and security requirements and demonstrate its public commitment to operate in a safe, secure, and environmentally responsible manner.

Empire Express transports solid sodium cyanide that is loaded into dry van trailers or ISO tanks by DuPont or its certified packaging operation, LSI. Cyanide is transported to a number of locations in the USA, Canada, and to the U.S./Mexican border. The Mexican shipments are transported to final destinations by a Mexican carrier that has also been certified as compliant with the ICMI Cyanide Code. Empire Express is also available to transport intermodal containers to ocean ports for DuPont, as necessary.

Empire Express is responsible for route determination, shipment tracking, truck inspections, preventive maintenance, training, safety program management, and emergency response planning. All of these operations were reviewed during the certification audit. The ICMI-approved Auditor verified that Empire Express operations are in FULL COMPLIANCE with Cyanide Code requirements for transporters.

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## Auditor's Finding

This operation is in FULL COMPLIANCE with the International Cyanide Management Code.

This operation has not experienced any significant cyanide incidents, releases, exposures since the previous ICMI Cyanide Code audit in 2010. The operation was found to have been in compliance with the ICMI Cyanide Code since the previous certification audit.

Audit Company:	MSS Code Certification Service, a Division of Management System Solutions, Inc. www.mss-team.com
Auditor:	Nicole Jurczyk
	E-mail: CodeAudits@mss-team.com
Date(s) of Audit:	September 16-17 and 20, 2013

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 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.

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1. TRANSPORT: Transport cyanide in a manner that minimizes the potential for accidents and releases.

<u>Transport Practice 1.1:</u> Select cyanide transport routes to minimize the potential for

accidents and releases.

☑ in full compliance with

The operation is in substantial compliance with Transport Practice 1.1

not in compliance with

Summarize the basis for this Finding:

Empire Express uses computerized route planning software and a documented procedure to determine routes. Route selections took into account population density, infrastructure, pitch & grade, proximity to water bodies, and prevalence and likelihood of poor weather and resulting poor driving conditions. Routing considerations were found to be consistent with those required by the ICMI Cyanide Code.

Risks such as traffic congestion, dangerous turns, tunnels, and poor road conditions were considered during the development of the routes. No tunnels are used on the routes reviewed during this audit. Routes are established in a way that avoids heavily populated areas when possible. One route involving a bridge requires an escort. This information is clearly communicated to drivers via training and shipping paperwork. Other risk mitigation measures are also addressed through training and automated communication processes utilized by dispatch personnel. Records were available to demonstrate that current practices are consistent with internal requirements and that processes are effective.

Empire Express has a formalized security plan and theft avoidance procedures in place. Community input regarding the transport of cyanide is gathered through the use of routing software that indicates whether communities have restricted use of specific roadways for the transportation of hazardous materials. No special security concerns exist on the designated routes, but specific measures are employed by Empire Express to reduce security risks on every shipment as much as possible.

Driver feedback is obtained after each delivery. According to the Route Change Procedure, routes are re-reviewed as necessary when driver feedback or changes to route conditions suggest that an approved route may require a change.

Empire Express is a member of the Port Authority Association on President's Island in Memphis. As such, they interact regularly with the Port Authority regarding emergency response

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planning with a special emphasis on security planning. Empire Express also has regular contact with customers and mine sites to which it delivers. Empire Express interacts pro-actively with all parties to ensure alignment of expectations and requirements for normal operations and emergency situations.

Empire Express does not use subcontractors for any portion of its cyanide transportation operations.

*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 Trannot in compliance with

Transport Practice 1.2

Summarize the basis for this Finding:

Empire Express uses only trained, qualified and licensed drivers. Drivers have Class A U.S. Department of Transportation licenses with hazardous material endorsements. Empire Express uses a computer program that prevents unqualified drivers from being assigned to transport cyanide. This software program also ensures that drivers have been trained on cyanide safety and that all shipper-defined driver requirements have been met. Records were reviewed and interviews were held to confirm that all personnel operating cyanide transport equipment are qualified and have been trained sufficiently to enable them to perform their jobs safely and appropriately.

Training records were very well organized and were available for all drivers who are authorized for transporting cyanide. Training records showed that drivers had been trained on the hazards of cyanide, established routes, pre-trip inspection procedures, and emergency notification procedures. Cyanide safety training was given to all drivers initially as part of the driver orientation training program. Hazardous materials handling, emergency preparedness training, and cyanide safety training are refreshed annually.

A sample of driver's licenses were also reviewed and showed that cyanide drivers have the necessary licenses with hazardous materials endorsements. Records for all drivers and

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operations personnel are maintained centrally. Record packages were randomly sampled and were found to be complete.

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

shipment.

☑ in full compliance with

The operation is in substantial compliance with Transport Practice 1.3

not in compliance with

*Summarize the basis for this Finding:* 

Empire Express tractors and trailers were evaluated during this audit. The tractors and trailers were found to be mechanically sound and capable of carrying the loads for which they were being used. Empire Express orders equipment with upgraded weight bearing capacities. Tractor and loaded trailer weights are carefully monitored to ensure that trucks are not overweight. ISO tanks and the chassis used for ISO tank deliveries are maintained by DuPont. The preventive maintenance of ISO tanks and chassis was audited during the 2013 DuPont Supply Chain audits. Empire Express also inspects the ISO tanks and chassis as part of its "Safety Lane" process prior to dispatch. The adequacy of all equipment is confirmed regularly through pre-trip inspections by the drivers and shop inspections by mechanics during the Safety Lane process.

Weight tolerances were confirmed through the review of records and data plates on the equipment. The Driver Handbook requires that drivers confirm the weight of their trucks by driving onto scales. A review of shipping papers confirmed that loads have not exceeded the equipment capacity ratings.

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

☑ in full compliance with

in substantial compliance with The operation is Transport Practice 1.4

not in compliance with

*Summarize the basis for this Finding:* 

Cyanide packages are loaded into Empire Express trailers by the shipper. Empire Express drivers confirm that the load has been properly secured after the cargo has been loaded. In addition to normal blocking and bracing, Empire Express employees use additional strapping equipment to ensure that the load is secure. Appropriate placards are displayed on all four sides of the trailers. This is confirmed during the pre-trip inspections. Equipment markings were found to be adequate and conformant during the audit.

Empire Express maintains documented procedures that address pre-trip inspections, preventive maintenance, limitations on driver hours, and the drug and alcohol abuse prevention program. Empire Express has a very robust preventive maintenance program for its equipment. Maintenance records were very well maintained and equipment was found to be in excellent condition.

Driver hours are limited to ensure that they are fit for duty. Drivers and dispatchers were aware of the requirements, (i.e., number of driving hours, on duty hours, rest, etc). Electronic logs are used to track driver hours of service and ensure compliance with U.S. Department of Transportation (DOT) federal requirements. Information regarding hours of service, number and length of breaks, etc. is available in real-time and is monitored closely by the Empire Express safety and operations departments. Documented procedures detail the process to be used if a driver needs to modify or suspend a shipment due to unsafe conditions. A drug abuse prevention program has been implemented and a random selection of drivers undergo testing every quarter. Records were available to demonstrate conformance to all safety program requirements.

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<u>Transport Practice 1.5:</u> Follow international standards for transportation of cyanide by sea

and air.

**☑** in full compliance with

The operation is in substantial compliance with Transport Practice 1.5

not in compliance with

Summarize the basis for this Finding:

Empire Express has delivered intermodal containers to ocean ports in the past. Packing, blocking and bracing is performed by the shipper. Adherence to the requirements of the Dangerous Goods Code (IMDG) of the International Maritime Organization is the managed by the shipper. Empire Express has not delivered an intermodal container to an ocean port in over three years.

<u>Transport Practice 1.6:</u> Track cyanide shipments to prevent losses during transport.

**☑** in full compliance with

The operation is in substantial compliance with Transport Practice 1.6

not in compliance with

Summarize the basis for this Finding:

Empire Express uses a number of methods to ensure that trucks are continuously tracked. Interviews with drivers, dispatchers, and management personnel and a review of computer records from shipments made in 2011 thru 2013 were used to confirm that cyanide shipments are being tracked carefully.

The proper functioning of equipment is checked during the driver pre-trip inspections and when the equipment is brought through the Safety Lane in the shop. Black-out areas do not present a significant problem on the majority of routes given today's tracking technology. The identification of black-out areas is done as part of the initial route planning and risk identification process. The information is also refreshed through driver feedback and the periodic re-review of routes. In the event that there is a black-out area, Empire Express has a procedure in place that is communicated to the driver as part of the dispatch process. Drivers are also trained on which routes have black-out areas and what requirements must be fulfilled to ensure safety and appropriate tracking of the shipment. Empire's approach to managing its communication and shipment tracking needs was found to be acceptable by the auditor.

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Drivers have shipping documentation including the Bill of Lading with them at all times during a shipment. Bills of Lading were reviewed. Information regarding the type of material transported, the type of container, the number of packages, and the weight of the shipment is consistently entered onto the Bill of Lading by the shipper. Drivers also have the sodium cyanide Safety Data Sheet (SDS), Transportation Emergency Sheets from the shipper, and Emergency Response Guides with them during deliveries. This practice was confirmed through interview and a review of information kept in trucks.

Trailers, ISO tanks, and intermodal containers are sealed upon loading and are not opened by Empire Express. U.S./Mexican customs records were reviewed and the seal numbers on containers and the weight of the shipment are confirmed at the point of transfer of custody. Shipping paperwork was reviewed for U.S., Canadian, and Mexican shipments and was found to be conformant to ICMI Cyanide Code requirements, including chain of custody requirements.

2. INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and

interim storage sites to prevent releases and exposures.

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

accidental releases.

☑ in full compliance with

The operation is in substantial compliance with Transport Practice 2.1

not in compliance with

#### Summarize the basis for this Finding:

Empire Express occasionally provides short-term storage of loaded trailers when business demands require it. In order to be compliant with ICMI Cyanide Code requirements, Empire Express developed a policy and internal requirements information to account for this infrequent occurrence. Signs are posted indicating that cyanide is present, personnel have been trained where the trailers are to be stored and that smoking, open flames, eating and drinking are not allowed in the area. The trailers are not opened and no personal protective equipment is necessary. The area is fenced and manned at all times. President's Island, where Empire Express is located, is technically a U.S. Port. As such, special security measures are required by the U.S. Government. The designated cyanide storage area is separated from other areas to ensure that the cyanide is not stored next to incompatible materials. Empire Express only transports solid sodium cyanide in multiple layers of packaging within sealed trailers. No additional secondary containment systems were deemed to be necessary by the auditor for this

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operation. The auditor found Empire Express' cyanide interim storage policy and storage area to be compliant.

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.

**☑** in full compliance with

in substantial compliance with The operation is Transport Practice 3.1

not in compliance with

*Summarize the basis for this Finding:* 

Empire Express has a documented emergency response procedure for transportation accidents. Empire Express drivers are to secure the scene and make a number of notifications. The information was reviewed and was found to be acceptable. Empire Express drivers have the emergency response sheets, the Emergency Response Guidebook (ERG), emergency telephone numbers, and the MSDS with them during all deliveries. Empire Express only transports cyanide via truck and all scenarios considered in the emergency planning documents were related to truck accidents or small cyanide spills from packaging. Solid sodium cyanide (the only physical form transported), roadway infrastructure differences, and the roles of the different emergency responders are discussed in the planning information.

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

☑ in full compliance with

in substantial compliance with The operation is Transport Practice 3.2

not in compliance with

*Summarize the basis for this Finding:* 

The roles and responsibilities of relevant internal and external personnel are clearly described in the emergency response sheet and the Empire Express procedures. All Empire Express employees receive annual general hazmat training and specific training on the Empire Express emergency response procedures with regards to cyanide shipments. Drivers were interviewed and awareness of emergency procedures was appropriate. Each truck has an emergency spill kit

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and drivers are instructed in its use during the annual training. Drivers are responsible for checking to make sure that the emergency kit is present and complete. The spill kit is also checked regularly when the tractor is brought through the maintenance shop for regular maintenance and for Safety Lane checks. The emergency response plan has a list of the equipment that is to be maintained in the spill kit. Equipment and records were checked and were found to be complete and appropriate.

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

notification and reporting.

**☑** in full compliance with

The operation is in substantial compliance with **Transport Practice 3.3** 

not in compliance with

*Summarize the basis for this Finding:* 

The notification procedures, including telephone numbers, are described in the Emergency Response Procedure. In the case of an emergency, drivers are instructed to contact the Empire Express Safety Office and CHEMTREC. The plan also calls for the notification of the shipper, the insurance company that coordinates emergency response services, and local authorities, as appropriate. Drivers have the necessary telephone numbers noted on the paperwork they carry in their trucks. Interviews confirmed that the V.P. of Safety at Empire Express ensures that notification procedures and telephone numbers remain current. The plan, including notification information, is also reviewed each year for adequacy. Information in the plan was reviewed and was found to be current at the time of the audit.

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<u>Transport Practice 3.4:</u> Develop procedures for remediation of releases that recognize the

additional hazards of cyanide treatment chemicals.

☑ in full compliance with

The operation is in substantial compliance with Transport Practice 3.4

not in compliance with

Summarize the basis for this Finding:

Empire Express procedures detail their role in an emergency which is strictly a notification role. Empire Express has made arrangements for hazardous materials experts to remediate a spill onto ground or into water and to dispose of contaminated solids, in the case of a spill. This was found to be acceptable by the auditor. The emergency response procedures ban the use of cyanide treatment chemicals in surface water. Interviews with the Empire Express Safety Manager confirmed awareness of the hazards of using de-contamination chemicals in surface waters.

<u>Transport Practice 3.5:</u> Periodically evaluate response procedures and

capabilities and revise them as needed.

☑ in full compliance with

The operation is in substantial compliance with Transport Practice 3.5

not in compliance with

Summarize the basis for this Finding:

The emergency plan is reviewed annually and tested periodically. Records from a drill run in 2013 were available for review. The results of the drill were acceptable. Interviews confirmed that the plan would also be reviewed after any deployment of the plan. Any changes would be made, as necessary. Emergency planning information was last updated in 2013.

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