

***INTERNATIONAL CYANIDE  
MANAGEMENT INSTITUTE***

**Cyanide Transportation  
Summary Audit Report**

*Prepared For*

**Miller Transporters, Inc.**

*To the*

***International Cyanide Management Code***

**October 2009 Protocol**

**Environmental Technology & Management**

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## SUMMARY AUDIT REPORT

Name of Cyanide Transportation Facility: **Miller Transporters, Inc. Memphis Terminal**

Name of Facility Owner: **Miller Transporters, Inc**

Name of Facility Operator: **Miller Transporters, Inc**

Name of Responsible Manager: **Dudley Alexander**

Address: **2000 Channel Avenue, Memphis**

City: **Memphis**

State/Province: **TN**

Country: **USA**

Telephone: **901-948-1594**

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E-Mail: **dalexander@millert.com**

**Location detail and description of operation:**

On August 25-27, 2010 Environmental Technology & Management conducted an audit of Miller Transporters, Inc.'s cyanide transportation activities against the Transport Practices of the International Cyanide Management Code, using the October 2009 protocol.

Miller Transporters, Inc (MTI) is a bulk transportation company specializing in chemicals and hazardous materials. Starting from one truck for hauling gasoline during World War II, the company now operates over 600 tractors and more than 1100 trailers throughout the United States and Canada. With its headquarters in Jackson, MS, MTI operates 22 terminals in 16 states.

Safety and service have been cornerstones of MTI's business from the beginning, and it has a number of safety awards to prove it. For instance, MTI earned the Grand Award in its class in the National Tank Truck Carriers 2006 Safety Contest. More recently, MTI was named Responsible Care® Partner of the Year by the American Chemistry Council. Responsible Care® is an initiative of the American Chemistry Council to drive continual improvement in environmental, health, safety and security management throughout the chemical manufacturing and distribution chain.

MTI's cyanide transportation activities are based at the **Memphis Terminal**. MTI has enjoyed a long-standing relationship with **DuPont** in transporting sodium and potassium cyanide briquettes from the Woodstock, TN manufacturing facility to gold mines and other consignees throughout North America. The manufacturer loads the briquettes into specially designed tank trailers, Flo-bins transported on flat-bed trailers, and smaller packaging it places into vans. The terminal is located on President's Island in Memphis, TN, and includes a dispatch office and driver facilities, a 2-bay tank wash facility plus a 4-bay tractor and trailer maintenance shop. The yard provides ample parking area for tractors as well as liquid, dry bulk and flat bed trailers.

Miller Transporters, Inc.

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Signature of Lead Auditor

Aug. 25-27, 2010

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

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: **August 25-27, 2010**

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.

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Signature of Lead Auditor

April 4, 2011  
Date

Miller Transporters, Inc.  
Name of Facility



Signature of Lead Auditor

Aug, 25-27, 2010  
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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 1.1. The organization has policies, practices and procedures in place to fully evaluate and select transportation routes for all cyanide destinations. MTI utilizes Haz-Route 2000 software from ALK Technologies, data from insurance provider Excel and driver feedback to select transport routes that minimize the potential for accidents and releases as well as the potential impacts of accidents and releases, should they occur. The auditor reviewed this Sodium & Potassium Cyanide Trip Routing Process, and noted that MTI maintained the process over the 3-year cycle. Each delivery location has a primary and alternate approved route numerically rated by considering total length in miles, population exposed, accident frequency and incident frequency. The process also considers infrastructure, pitch and grade, and prevalence of water bodies and fog. The auditor found ample documented evidence that MTI takes measures to manage the risks, and reevaluates cyanide routes through periodic reviews and driver feedback. Input to the route selection process includes that from communities and governmental agencies along the route, and together with the manufacturer, MTI seeks other stakeholder input, as well. MTI always uses team drivers to address safety and security concerns, and chooses to decline business where routes present special safety or security concerns. Because of DuPont's strong product stewardship ethic and its expertise in the area, DuPont insists in taking the lead on advising and training external responders, medical facilities and communities. Lastly, MTI's only subcontracting for cyanide transport is with Owner/Operators, and all of these drivers are subject to the same high standards in hiring, training and qualification as company drivers.



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

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

*Summarize the basis for this Finding/Deficiencies Identified:*

The auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 1.2. All MTI drivers, including Owner/Operators, are trained, qualified and licensed to operate its vehicles. All drivers must meet all Federal Motor Carrier Safety Regulations, be at least 21 years of age, possess a valid Class A Commercial Drivers License with Tank Truck and Hazardous Materials endorsements, and have a good driving record. Furthermore, drivers transporting cyanide must attend the Cyanide Safety Awareness for Transporters training at least every three years and review the DuPont Cyanide Safety video at least annually. Additionally, all new drivers receive training at the Jackson, MS headquarters, and then make at least 3 trips with a Driver/Trainer. The Driver/Trainer records the new driver's training progress each day. On cyanide shipments, it is MTI practice to put a new cyanide driver on a team with an experienced driver for at least three months.


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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 1.3. MTI only uses equipment designed and maintained to operate within the loads it will be handling. That includes Flo-Bins and bulk tank trailers (Excel II trailers) owned by DuPont and flat-bed trailers and vans owned or leased by MTI. All equipment meets D.O.T. specifications. Additionally, the Excel II trailers are designed for non-highway use, when they are filled with water at the delivery point to dissolve the cyanide briquettes. MTI has documentation substantiating the design adequacy of Excel II trailers

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under the static load encountered during unloading. Lastly, MTI inspects all of its cyanide transportation equipment, regardless of MTI or DuPont ownership, according to D.O.T. requirements.

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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 1.4. MTI and DuPont have procedures in place to ensure packaging integrity during transport. For van shipments, MTI drivers inspect the interiors, while DuPont loads and blocks and braces each load. DuPont loads Flo-Bins onto flat bed trailers, with guidance from drivers on placement, but MTI drivers secure the bins. MTI addresses placarding in procedures and also in the Miller Transporters Driver's Manual. Placards are installed by DuPont personnel and are checked by MTI drivers. MTI drivers inspect loads before shipment by completing Driver Vehicle Inspection Reports (DVIR's) and DuPont personnel and MTI drivers inspect each load as part of the Load Pick-Up Process. MTI drivers complete a special checklist for cyanide loads which includes looking for any evidence of powder, unsealed valves, hatches and locks. Preventive maintenance is conducted at the Memphis Terminal shop, while any repairs to tanks must be conducted at the ASME code shop at the Jackson, MS headquarters. Preventive maintenance on trailers is performed according to SP-0707 Preventive Maintenance Program. MTI complies with Part 395 of the Motor Carrier Safety Regulations which places strict limitations on driving and on-duty hours. These are monitored automatically through a Qualcomm Electronic Logging System. DuPont loads all van trailers and blocks & braces each load to prevent shifting during transit. DuPont loads Flo-Bins onto flat bed trailers, but MTI drivers secure the bins according to procedures which exceed D.O.T. requirements. Additionally, drivers are required to stop every two hours or 100 miles to inspect chains and straps securing Flo-Bins to flat bed trailers. Drivers are empowered to make decisions about suspending CN transportation for road or weather conditions or civil unrest. When travel on the approved route becomes difficult, MTI drivers contact their dispatcher by Qualcomm or telephone. The dispatcher will consult



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MTI's Sodium & Potassium Cyanide Trip Routing Process to aid in determining alternate routes, or other courses of action. The MTI Alcohol & Controlled Substance Testing Program includes four types of tests: Pre-employment, Random, Post-Accident and Reasonable Suspicion. DuPont also requires testing after any incident involving DuPont product. The auditor found all records pertaining to cyanide transportation activities to be complete and well managed.

*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:*

Transport Practice 1.5 is not applicable, as MTI does not transport cyanide by sea and 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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 1.6. Each tractor transporting cyanide is equipped with Qualcomm communication and tracking devices that allow for two-way communication between drivers and dispatcher while accurately tracking truck location, driver hours of service and other data. In addition to Qualcomm, each driver carries a cell phone. Shipping papers include a phone number for the consignee and drivers are furnished with a list of phone numbers for DuPont, the terminal manager, etc. and emergency phone numbers such as Chemtrec and others. MTI's Information Systems Department monitors the function of the entire Qualcomm system to ensure its continuous viability, as this system is essential to the operations of the company. MTI has identified communication black-

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out areas and weak spots along each transportation route. As a result Trucks going to Canada must be equipped with satellite-based Qualcomm, and at least one team driver must be equipped with an AT&T cell phone with a Canada Calling Plan added. The auditor verified that Qualcomm tracks route and position history. MTI transports loads directly from shipper to consignee precluding the need for any inventory control on MTI's part. Bill of Lading and shipping information include export papers if the load is going into Canada. Drivers are required to periodically inspect loads while in transit. The auditor verified that the Straight Bill of Lading – Short Form indicated the amount of cyanide in transit, and that the shipping papers included a Transportation Emergency Notification Sheet and MSDS.

**(Due to the sensitivity of security issues regarding storage of cyanide, no descriptions of substantial or non-compliance with this aspect of the Transport Practice should be provided.)**

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

Transport Practice 2.1:

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:*

MTI does not conduct any CN trans-shipping or interim storage. All trailers, containers and packaging are sealed by the producer, and transported directly to the customer site. Any loaded trailers are only stored on the producer's plant site under the producer's own security procedures. Team drivers are always employed for cyanide shipments to ensure security (one driver remains with the truck at all times) and to ensure that the load will not have to stop for required driver rest periods.

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**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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 3.1. MTI maintains SP0625 Emergency Response, Product Incidents as its emergency response plan for transportation related emergencies. The plan includes several appendices to ensure that it is appropriate for all approved cyanide transportation routes. For example, Appendix A contains information on company personnel and their roles in emergency response throughout the system while Appendix B provides current contact information on federal, state and provincial agencies required to be notified in the U.S. and Canada, and Appendix G covers Cyanide Response Contractors by Route. Additionally, the plan provides specific emergency response actions for cyanide transport by truck, considering the physical form of potassium and sodium cyanide transported by MTI, all aspects of roadway transport infrastructure, and the specific design of the Excel II trailers, Flo-bins and packaging in planning for containment and emergency response. Planning includes identifying and providing tools and equipment for emergency response, some of which is carried by team drivers in the truck, and others carried by emergency response teams with trailers located at selected MTI terminals. Lastly, the plan addresses the roles of drivers and outside responders in response to cyanide incidents. Per contractual agreement, DuPont will take the lead in providing technical advice to emergency responders, medical facilities and local authorities, although drivers are trained to provide initial information to first responders, mitigate small spills and isolate the area.

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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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 3.2. MTI provides emergency response training for appropriate personnel, including Hazardous Material Teams. SP0625 Emergency Response, Product Incidents Appendix A contains information on company personnel and their roles in emergency response throughout the system. MTI maintains emergency response trailers at eight locations. SP0625 Appendix E contains a long list of fittings, clean-up materials and hand tools, personal protective equipment, lights, emergency signals, repair and response equipment to be found in each trailer. Emergency equipment at the Memphis Terminal also includes a pick-up truck with compressor. With respect to personal protective equipment (PPE), DuPont provides Tyvek suits to team drivers while MTI provides them with hard hat, goggles, rubber boots and gloves. MTI team drivers transporting cyanide must attend the MTI Cyanide Safety Awareness for Transporters training at least every three years and review the DuPont Cyanide Safety video at least annually. Additionally, all new drivers initially receive training at MTI's Jackson, MS headquarters, and then make at least 3 trips with a Driver/Trainer. For cyanide shipments, it is MTI practice to put a new cyanide driver on a team with an experienced driver for at least three to six months. SP0625 Appendix E Emergency Equipment list is used to inspect emergency response trailers at least annually, to ensure that necessary equipment is available and in good working order when needed. Trailer tire pressure is monitored weekly. MTI transports cyanide, but does not otherwise handle it. MTI does not broker or subcontract loads to any other transport company. Per contractual agreement, DuPont will take the lead in providing technical advice to emergency responders, medical facilities and local authorities, although drivers are trained to provide initial information to first responders, mitigate small spills and isolate the area.

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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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 3.3. SP0625 Emergency Response, Product Incidents includes procedures and current contact information for regulatory agencies, outside response providers and other contacts along each route. In addition, shipping papers accompanying each shipment specify contact information for the consignee, the shipper's emergency hotline, Chemtrec and Canutec (in Canada). Drivers are trained to communicate with local first responders, usually a 911 call and with MTI dispatchers who will initiate SP0625 procedures. That includes contacting Chemtrec, which in turn assures contact with DuPont, if contact has not already been made. DuPont will contact the driver and/or first responders on the scene to provide technical advice. MTI reviews SP0625 on an annual basis and revises it as necessary, to ensure that internal and external emergency notification and reporting procedures are kept current.


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

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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 3.4. By contractual agreement, DuPont insists on directing remediation, such as recovery or neutralization of product, decontamination of soils or other contaminated media and disposal of spill clean-up debris. The contractors that would be used for the actual work are listed in Appendix G of SP0625 Emergency Response, Product Incidents. This agreement covers all cyanide products transported by MTI. DuPont's cyanide

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emergency response procedures and MTI's SP0625 specifically prohibit the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat water-borne cyanide releases. MTI trucks do not have these chemicals on board, and MTI Hazardous Materials Teams do not carry such chemicals. DuPont and MTI procedures prohibiting use of these chemicals have been communicated to the contractors listed in Appendix G of SP0625.


*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 auditor found Miller Transporters Inc (MTI) to be in full compliance with Transport Practice 3.5. MTI's procedure, SP0230 Operations Manual Updates, requires annual review of procedures, such as SP0625 Emergency Response, Product Incidents, evaluation for adequacy, and revision, as necessary. Annual review of SP0625 was last completed on 7/6/09, and another review was in process at time of this audit, August 2010. MTI regularly conducts mock drills as part of the ongoing training program for its Hazardous Materials Teams. Table Top Exercises for Cyanide incidents are conducted annually. The last Table Top Cyanide Exercise prior to the Recertification Audit was conducted on 9/21/09. Safety Meeting Attendance sheets for Table Top Exercises conducted on 5/15/07 and 10/2/08 were also audited, verifying that this practice has been sustained over the entire three year cycle. SP0625 includes a provision for evaluating emergency plans after they are deployed for an actual emergency, but there have been no cyanide incidents to verify that this practice has been implemented.

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