

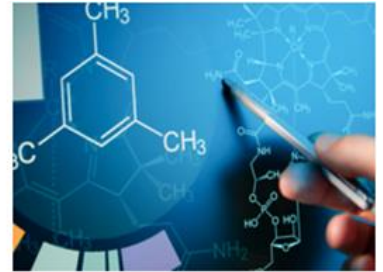
# ICMI Transportation Verification Protocol (Revision June 2021)

Summary Audit Report

## Action Resources, Inc.

2021 Re-Certification Audit

**ACTION**  
resources



Submitted to:

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

[www.mss-team.com](http://www.mss-team.com)

  
MSS  
Code Certification Service

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## Operation General Information

<b>Name and location of Operation:</b>	Action Resources, Inc. 5001 Underwood Rd. Pasadena, TX 77507
<b>Names and contact information for this facility:</b>	Carl Rochford <a href="mailto:carl.rochford@actn.com">carl.rochford@actn.com</a> (281) 930-4848

## Operation Description

The Action Resources (AR) cyanide transportation operations at the AR Pasadena, Texas Terminal were audited and were found to be in FULL COMPLIANCE with the ICMI Cyanide Code. The operation was originally certified in 2015; this was the third (re-)certification cycle for the operation. Action Resources transports solid sodium cyanide that is loaded into ISO tanks and intermediate bulk containers (IBCs) packed into intermodal (sea) containers by Cyanco in Alvin, Texas - USA. Cyanide is transported from the Alvin cyanide production facility to the Port of Houston, local rail heads, and to an interim storage location in Houston that is contracted by the Cyanco and maintained as part of the Cyanco Cyanide Code certified supply chains.

Action Resources has been providing specialized chemical and waste transportation services since 1995. AR is responsible for route determination, shipment tracking, truck inspections, preventive maintenance, training, safety program management, and emergency response planning.

## Audit Implementation and Conclusions

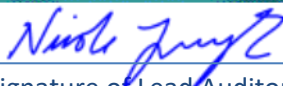
This re-certification audit was conducted through on-site observations, reviews of records and procedures, and interviews with senior management, operations management, drivers, and dispatchers. The auditor used the ICMI *Cyanide Transportation Verification Protocol (2021 Revision)* to confirm International Cyanide Management Code (Cyanide Code) compliance.

Procedures, equipment condition and records were evaluated during this audit. The assessment was based on random samples of information and therefore deficiencies may exist which have not been identified. The depth to which records and data were sampled was typical of an environmental, health and safety (EH&S) management system audit. Legal compliance with federal, regional, and local regulations was not part of the scope of this evaluation.

The audit was performed by an independent third-party auditor who fulfills all ICMI Cyanide Code Lead Auditor and Technical Auditor requirements for cyanide transportation audits.

All aspects of the cyanide transportation were included in this Cyanide Code Re-Certification Audit. The operation was found to be in FULL COMPLIANCE with Cyanide Code Cyanide Transportation requirements.

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Name of Operation

  
Signature of Lead Auditor

February 28, 2022  
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## Auditor's Finding

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

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

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

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

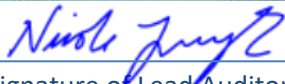
## Compliance Statement

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

## Auditor Information

<b>Audit Company:</b>	MSS Code Certification Service, a division of: Management System Solutions, Inc. <a href="http://www.mss-team.com">www.mss-team.com</a>
<b>Lead / Technical Auditor:</b>	Nicole Jurczyk E-mail: <a href="mailto:njurczyk@mss-team.com">njurczyk@mss-team.com</a>
<b>Date of Audit:</b>	December 20, 2021

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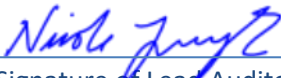
February 28, 2022  
Date

### Auditor Attestation

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit 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 Verification Auditors.

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

Action Resources



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## Principles and Standards of Practice - 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.

Action Resources uses documented procedures to determine routes. Routes are developed using mapping software, the National Hazardous Materials Route Registry, and through input from the Action Resources drivers. Risks associated with routes are evaluated when they are initially established and are re-evaluated and re-approved at least every three years thereafter. Changes to routes are made when increased risks are identified by route evaluations or driver feedback. Each route is documented including hazards and risk mitigation measures. This information is made available to drivers in the shipping instructions for each delivery. Community input regarding the transport of cyanide is incorporated into the route planning process through the use of routing software that indicates whether communities have restricted use of specific roadways for the transportation of hazardous materials. No special safety or security concerns were identified.

Action Resources does not subcontract any portion of their cyanide transportation operations.

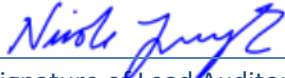
The operation is:  In full compliance with Standard of Practice 1.1  
 In substantial compliance with  
 Not in compliance with

**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.

Action Resources uses only trained, qualified and licensed drivers. All drivers have a U.S. DOT Class A Commercial Driver's License (CDL) with a Hazardous Materials endorsement. All drivers must complete training and testing prior to being allowed to transport cyanide. Action Resources gives training initially and as needed to ensure that all personnel operating cyanide transportation equipment execute their duties in a manner that minimizes the potential for cyanide releases and exposures.

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

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

Transportation equipment is designed by US manufacturers to meet U.S. DOT weight rating standards. Gross Vehicle Weight Rating (GVWR) is certified by the manufacturer and documented on each vehicle with a label. Equipment labels were reviewed during the audit and were found to be acceptable.

Truck inspections and preventive maintenance actions are performed regularly to ensure the adequacy of equipment to carry the specified loads. Inspections are scheduled, tracked and documented. Records were available for review during the audit and were acceptable. Weight tolerances were confirmed through the review of records and placards on trailers. A review of shipping papers confirmed that loads have not exceeded the truck/chassis capacity ratings.

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

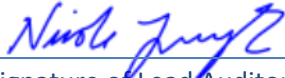
**Transport Practice 1.4:** Develop and implement a safety program for transport of cyanide.

Cyanide containers are loaded and sealed by the Shipper. The Shipper uses a checklist to confirm that the blocking and bracing has been done properly. Appropriate placards are applied by the Shipper and are displayed on all four sides of the transport vehicles.

Driver interviews confirmed that pre-trip inspections are done prior to every departure/shipment and that these pre-trip inspections include checking for maintenance needs and potential safety issues related to ISO tanks and intermodal containers. The pre-trip inspection is recorded on the electronic logging system. Records were available and were found to be complete. The pre-trip inspection process was found to be suitable and effective for identifying and resolving potential problems with the tractor, trailer, chassis, ISO tanks, and intermodal containers. Truck inspections and preventive maintenance actions are performed regularly to ensure the adequacy of equipment to carry the specified loads. Maintenance records were reviewed and were found to be complete during the audit. Only equipment with up-to-date inspections and maintenance can be dispatched.

Action Resources enforces limitations on drivers' hours in accordance with U.S. Federal Motor Carrier Safety Regulations (FMCSR). Drivers, Dispatchers and Safety personnel were interviewed, and this information was confirmed. Cyanide containers are loaded and sealed by the Shipper. The Shipper uses a checklist to confirm that the blocking and bracing has been done properly. Action Resources drivers confirm that the locking mechanisms securing the containers to the trailer are properly engaged. Drivers are empowered and directed to pull over whenever weather, fatigue or other conditions make it unsafe to continue the trip. A drug and alcohol abuse prevention program is in place and is managed by a third party provider. Records were available and were reviewed to confirm that all Cyanide Code safety program

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requirements were fulfilled.

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

Action Resources does not transport sodium cyanide by sea; however, cyanide is delivered to the Port of Houston that is intended for ocean transport. Appropriate placards applied by the Shipper are displayed on all four sides of the transport vehicles. Drivers visually inspect containers prior to each movement. The Shipper is responsible for ocean transport. Adherence to maritime requirements and Cyanide Code ocean transport-related requirements is confirmed during the Ocean Supply chain audit of the Shipper (Cyanco).

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.5
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The operation is:	<input checked="" type="checkbox"/> Consistent with Transport Practice 1.5 <input type="checkbox"/> Substantially consistent <input type="checkbox"/> Not consistent
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Action Resources, Inc.  
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*Nicole Jung*  
Signature of Lead Auditor

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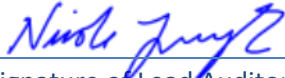
**Transport Practice 1.6:** Track cyanide shipments to prevent losses during transport.

Dispatchers maintain contact with drivers and are kept updated as to the location of the trucks. Each truck is equipped with GPS tracking, Qualcomm satellite communications, and an Electronic Logging Device (ELD). Communications equipment is part of the precheck inspection process. The equipment is in constant use each day. Problems with the equipment would become readily apparent. If a Qualcomm set fails, electronic error messages are automatically sent to the computer monitors of dispatch and operations personnel and sets are repaired as soon as they are returned to the Terminal. There are no blackout areas along the selected routes. Action Resources continuously tracks trucks using GPS. Transport containers are loaded with Sodium Cyanide and sealed by the Shipper and are not opened by Action Resources. The seal numbers and weight of the shipment are noted on shipping documents and confirmed at the point of transfer of custody. Shipping paperwork was reviewed and found to be conformant to Code requirements, including chain of custody requirements.

Information regarding the type of material transported the type of container, the number of packages, and the weight of the shipment were found to have been entered consistently onto the Bill of Lading by the Shipper. Drivers also have the sodium cyanide SDS and Emergency Response Guidebook with them during transport. This practice was confirmed through driver interviews and a review of the information kept in the trucks utilized by these drivers.

The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 1.6
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## Principle 2 | INTERIM STORAGE

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

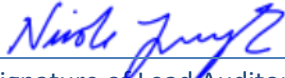
<b>Transport Practice 2.1:</b> Store cyanide in a manner that minimizes the potential for accidental releases.		
Action Resources does not provide interim storage for sodium cyanide. This requirement does not apply to the organization		
The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 2.1

## Principle 3 | EMERGENCY RESPONSE

Protect communities and the environment through the development of emergency response strategies and capabilities.

<b>Transport Practice 3.1:</b> Prepare detailed emergency response plans for potential cyanide releases.		
Action Resources has a documented <i>Cyanide Contingency Plan</i> that is used as an Emergency Response Plan (ERP) for transportation accidents. Action Resources only transports cyanide via truck and all scenarios considered in the ERP were related to truck accidents or small cyanide spills from packaging. Action Resources drivers are to secure the scene and make a number of notifications. Solid sodium cyanide (the only physical form transported), roadway infrastructure differences, the type of transport container (ISO tank or intermodal container), and the roles of the different emergency responders are discussed in the ERP. The plan was found to be appropriate for the company and the type of cyanide shipments made by Action Resources. The <i>Cyanide Contingency Plan</i> identifies the roles of the external hazardous material cleanup contractor and emergency response personnel. Interviews confirmed that the Shipper has contacted medical facilities in the area and confirmed capability to treat patients for cyanide exposure in the event of an incident.		
The operation is:	<input checked="" type="checkbox"/> In full compliance with <input type="checkbox"/> In substantial compliance with <input type="checkbox"/> Not in compliance with	Standard of Practice 3.1

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

Training on the Emergency Response Plan, including implementation of the plan, was given to drivers, dispatchers, and other relevant office personnel initially and then refreshed at least once every re-certification period thereafter. Specific actions and emergency response duties are detailed for drivers, office staff, managers, and the emergency response company. The ERP has the list of emergency equipment that is to be maintained on the truck. Safety equipment is checked and maintained as part of the Driver pre-trip inspection to insure availability in time of emergency. Drivers were interviewed and confirmed that a check of the emergency response equipment is part of the pre-trip inspection process to ensure availability in time of emergency. The emergency response equipment was checked during the audit and was found to be complete.

Action Resources subcontracts emergency response to an emergency response and remediation company. Correspondence with the AR corporate group and with emergency responder confirmed the service provider's readiness to assist and the contractual relationship AR has with its service provider. The role of emergency responder is clearly defined in the AR *Cyanide Contingency Plan*.

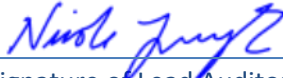
The operation is:  In full compliance with  
 In substantial compliance with  
 Not in compliance with  
Standard of Practice 3.2

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

The AR emergency procedures include telephone numbers for contacting the cyanide producer (Cyanco), regulatory agencies, OMI (external response provider), 911, and medical facilities near the terminal. The telephone information for the customer is on the shipping paperwork, but because AR typically delivers to a rail head or a port, it is unlikely that AR would contact a customer. Potentially affected communities would be notified through the robust 911 emergency services network and reverse calling systems that exist in the extensive chemical industrial area in the Pasadena / Houston region where these shipments occur. External emergency notification and reporting procedures, including telephone numbers are reviewed at least annually. They were reviewed during the audit and were found to be up to date.

The Action Resources *Cyanide Transportation Procedures* document includes the requirement to notify ICMI if a significant cyanide incident occurs. There have been no significant cyanide incidents (spills or exposures) since the operation first started.

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The operation is:	<input checked="" type="checkbox"/> In full compliance with	Standard of Practice 3.3
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	<input type="checkbox"/> Not in compliance with	

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

Action Resources has contracted hazardous materials experts to remediate, in the event of a spill. The service provider is also responsible for the disposal of contaminated solids. Action Resources emergency response procedures contain a prohibition against the use of sodium hypochlorite, ferrous sulfate and hydrogen peroxide de-contamination chemicals to treat cyanide that has been released into surface water. This requirement was communicated to the emergency response / remediation service provider.

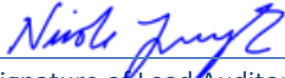
The operation is:	<input checked="" type="checkbox"/> In full compliance with	Standard of Practice 3.4
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	<input type="checkbox"/> Not in compliance with	

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

The emergency procedures are reviewed at least annually and after emergency response drills. Action Resources conducts emergency drills each re-certification period to determine if response procedures are adequate, equipment is appropriate, and personnel are properly trained. The last full review of the plan was conducted in 2021. The most recent emergency response drill was conducted in coordination with the emergency response service provider and the Shipper. No changes to the emergency procedures were deemed necessary following this drill. Records were reviewed and were found to be acceptable.

The operation is:	<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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