



May 2008

**INTERNATIONAL CYANIDE MANAGEMENT CODE
CYANIDE TRANSPORTATION CERTIFICATION AUDIT**

**Freight Forwarders Kenya Limited
Cyanide Transportation Audit
Kenya, East Africa
Summary Audit Report**

Submitted to:

Freight Forwarders Kenya Limited
PO Box 90682
Mombasa
KENYA (EAST AFRICA)

International Cyanide Management Institute (ICMI)
1200 G Street, NW, Suite 800
Washington DC 20005
UNITED STATES OF AMERICA

REPORT



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RECORD OF ISSUE

Date	Revision	Format	Company	Name	Copies
22 Feb 2008	Rev 0 – Draft	Electronic	FFK	Hanif Somji	1
11 Apr 2008	Rev 0	Electronic	FFK	Roger Lucheli	1
23 Apr 2008	Rev 0	Electronic	ICMI	Norm Greenwald	1

- Transportation.
- Procurement Services.
- Communications.
- Transportation.

FFK utilises a Transit Yard within close proximity of the Port of Mombasa for the temporary storage of cyanide. FFK utilise the transportation services of Transeast Limited to transport cyanide within Tanzania and Kenya. Transeast Limited is a group associated company of FFK.

FFK has a close working relationship with Freight Forwarders Tanzania Limited (FFT).

Allied Wharfage Limited

The Allied Wharfage Limited Transit Yard is situated off Refinery Road in Changanwe within close proximity of the Port of Mombasa, Moi International Airport and the Mombasa-Nairobi Highway. The Transit Yard is owned and managed by Allied Wharfage Limited (AWL), a wholly owned company of FFK. AWL was formed in 1990 to provide warehousing and related services.

The Transit Yard comprises over 4.5 hectares of warehousing space and 1.2 hectares of yard space for bonded, transit and local cargos.

Clearing and Forwarding Services for AWL is undertaken by its principal company FFK, while transportation is undertaken by its group associated company, Transeast Limited.


Transeast Limited

Transeast Ltd is a Transport company based in Mombasa on the Kenyan Coast. The company specialises in the transport of regular containerised cargo, bulk cargo, out of gauge cargo and Dangerous Goods within the East and Central African region. Transeast is a subsidiary of Freight Forwarders Kenya who also is its key customer.

Goods transported by Transeast Ltd to the Gold mines in northern Tanzania include:

- Hydrogen peroxide.
- Sodium Cyanide.

Freight Forwarders Kenya Ltd
Name of Facility


Signature of Lead Auditor

23 April 2008
Date

Auditor's Finding

FFK's transport operations within Kenya and Tanzania are:


- in full compliance with
- in substantial compliance with
- not in compliance with

**The International
Cyanide Management
Code**

A breakdown of the findings is detailed below:

Audit Company: Golder Associates
Audit Team Leader: Edward Clerk, CEnvP
Email: eclerk@golder.com.au

Name and signatures of other auditors:

<u>Ken Price (Technical Specialist)</u>		<u>23 April 2008</u>
Name of Auditor	Signature of Auditor	Date

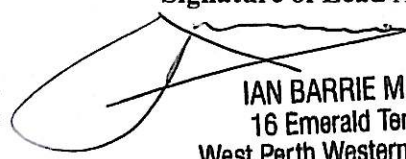
I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management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

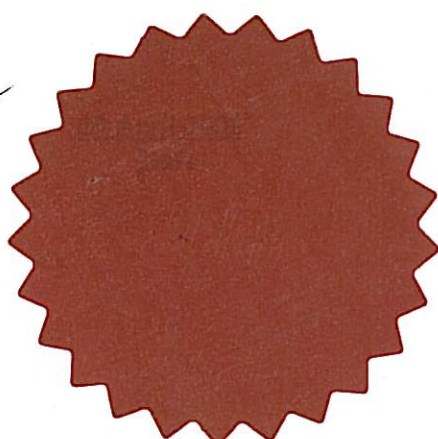
I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations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

Freight Forwarders Kenya Ltd
 Name of Facility

Signature of Lead Auditor

23rd April
2008


 IAN BARRIE MURIE
 16 Emerald Terrace
 West Perth Western Australia
 General Public Notary



Freight Forwarders Kenya Ltd
 Name of Facility

Signature of Lead Auditor

23 April 2008
Date

Golder Associates

Principle 1 – Transport:**Transport Cyanide in a manner that minimises the potential for accidents and releases.**

Transport Practice 1.1: *Select cyanide transport routes to minimise 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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Transport Practice 1.1 requiring cyanide transport routes are selected to minimise the potential for accidents and releases.

FFK, in consultation with its supplier (Orica), its carrier Transeast and clients have implemented a procedure for the transport route selection to minimise potential for accidents and releases, in an environment where there are limited practical alternative transport routes.

The transport routes have been analysed for risks and restrictions, and numerous actions were identified and implemented to improve safety. Drivers assess and report on conditions during each trip. FFK its clients and suppliers have consulted various stakeholders and applicable governmental agencies as necessary in the selection of routes and development of cyanide management measures.

The routes are routinely re-assessed as they are driven.


Convoys are used for every delivery as a means of managing the risks of the road conditions (traffic and people, poor road conditions). Each convoy is led by one of two support vehicles.

FFK largely manages its own emergency response. Mutual assistance programs with the mines supplement the emergency response capabilities of FFK.

In February 2008, FFK conducted a road trip where emergency responders and support agencies along the various routes were consulted on cyanide and advised of their roles during an emergency.

FFK subcontracts the transport of cyanide to Transeast under a Service Level Agreement. The Service Level Agreement requires Transeast to comply with the ICMC. FFK have developed an audit protocol to assist in the subcontractor performance assessment.

Freight Forwarders Kenya Ltd
Name of Facility



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23 April 2008
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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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 1.2 requiring that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

FFK through its subcontractors Transeast and AWL only use competent operators to drive its transport vehicles. Training for all operators is adequate and appropriate.

FFK only use competent operators to drive transport vehicles and personnel use numerous checklists for all consignments of dangerous goods to minimise the risk of any unsafe practices.

There is no requirement in Tanzania and Kenya for drivers to be licensed for dangerous goods transport. Despite this, the Company has extensive training procedures in place to ensure that cyanide is handled in the most appropriate way to minimise the risk of any uncontrolled release. The training conducted by Transeast also covers handling activities within the Allied Wharfage Transit Yard.


Transport Practice 1.3: *Ensure the 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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

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FFK through its contractors Transeast and AWL, uses only equipment designed and maintained to operate with the design loads.

Procedures are in place to assure the adequacy of the equipment for the load and to prevent overloading. FFK only lifts freight containers of cyanide using appropriately rated fork lift vehicles. Unpacking of the boxes from the containers at the mines is performed by the mine operators.

The transport vehicles consist of road vehicles (semi-trailers) that were purchased to a design specification appropriate for the cyanide transport task. There are sufficient vehicles to ensure that no other vehicles are used for the transport of cyanide during maintenance and all transport on public roads is in standard freight containers.

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

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

Summarise the basis for this Finding/Deficiencies Identified:


FFK is in FULL COMPLIANCE with Standard of Practice 1.4 requiring the operation develop and implement a safety program for transport of cyanide.

FFK through its contractors Transeast and AWL has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the packaging.

Placards are used by FFK to identify shipments as cyanide and the company applies the principles of the United Nations Model Regulations for Transport of Dangerous Goods and the Australian Dangerous Goods Code.

Equipment consists of road vehicles (semi-trailers) that were purchased to a design specification appropriate for the cyanide transport task. Transeast has developed a Safety Program that is effectively implemented. It includes: vehicle inspections prior to each shipment, preventive maintenance activities, limitations on driver hours of operation, procedures to prevent loads from shifting, procedures for modifying or suspending travel during severe weather, and drug abuse prevention. Records are maintained for all aspects of the Safety Program.

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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

Summarise the basis for this Finding/Deficiencies Identified:

Standard of Practice 1.5 is NOT APPLICABLE to FFK.

FFK do not transport consignments of cyanide by sea or air within the scope of this audit.

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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 1.6 requiring the operation track cyanide shipments to prevent losses during transport.


FFK through its subcontractor Transeast, has an effective means of communication with its transport vehicles to track shipments and prevent losses.

All transport vehicles used by Transeast have comprehensive communications systems that include GPS, satellite and mobile telephones that are on continuously. All communication equipment is checked prior to each delivery as part of the pre-trip check.

There are no communication blackout areas within Kenya on the transport routes used by Transeast. Communication blackout areas along transport routes within Tanzania have been identified and managed with a satellite phone.

FFK and its subcontractors have appropriate inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment. All trucks carry a material safety datasheet for sodium cyanide.

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Principle 2 – Interim Storage:

Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

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

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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 2 requiring the operation store cyanide in a manner that minimises the potential for accidental releases.

The Allied Wharfage Limited (AWL) Transit Yard (Transit Yard) is owned and managed by AWL, a wholly owned company of FFK.


The site has signage indicating PPE requirements, and signage prohibiting smoking, open flames, eating and drinking at all entrances. The presence of cyanide was indirectly indicated through the dangerous goods storage sign and 4WE mixed cargo storage sign.

The Transit Yard is secured by a block wall approximately 4 m high and topped with a multiple strand electric fence approximately 1 m high.

The Transit Yard is a Bonded Store (pre-customs) and all cyanide containers remain bonded until they arrive at the mine site destination. Consequently, all cyanide IBCs are stored in locked and sealed containers. A security presence is on-site 24 hours each day.

The cyanide storage area has adequate secondary containment and a procedure surrounding the management of the containment drainage has been developed and implemented.

Freight Forwarders Kenya Ltd
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Principle 3 – Emergency Response:**Protect communities and the environment through the development of emergency response strategies and capabilities**

Transport Practice 3.1: *Store cyanide in a manner that minimises the potential for accidental releases.*

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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases.

FFK has developed a Safe Work Procedures Manual containing the Freight Forwarders Group Cyanide Emergency Procedures (CEP), which covers the Transit Yard and cyanide incidents between the Port of Mombasa gate to customer mines in Tanzania.

The CEP is specifically drafted around solid cyanide, as it is the only material transported. The CEP considers site specific conditions and the design of the transport vehicles and storage facility.


The emergency response approach detailed within the CEP is flexible enough to accommodate and describe the response actions to be taken for the types of potential release scenarios identified. The CEP contains sufficient procedural information to allow these actions to be conducted and details persons responsible to undertake the actions.

The CEP identifies the roles and responsibilities of outside medical facilities, police, mine emergency response teams, the manufacturers' emergency response services, and relevant contact details are specified.

Outside responders, have been advised of their designated responsibilities. Communities do not have a designated a role in the CEP.

Orica plays a significant advisory and technical role in the emergency response process in the event of a cyanide release. Orica has assisted in the development of the CEP.

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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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 3.2 requiring the operation designate appropriate response personnel and commit necessary resources for emergency response.

FFK has been providing emergency response training of appropriate personnel since 2002. At the time of the audit, FFK were implementing a new training program and a commitment was given that only people deemed competent under the new training system would be selected to drive and manage the convoys and participate in the Emergency Response Team.

The CEP contains descriptions of the specific emergency response duties and responsibilities of transport and Transit Yard workers, as well as external responders.

Training requirements and training frequencies, including initial and periodic refresher dates are detailed within a Training Matrix and tracked by the Transeast Safety Officer. Training records and interviews confirmed that the training was conducted and indicated knowledge of emergency response procedures.


Two containers of emergency response and PPE equipment are maintained at the Transeast yard with an additional container maintained at the Transit Yard. PPE and emergency response equipment is also located on each truck used on the convoy. Emergency response checklists focus on the serviceability of the equipment as well as its presence. All equipment is inspected regularly.

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

Summarise the basis for this Finding/Deficiencies Identified:

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FFK is in FULL COMPLIANCE with Standard of Practice 3.3 requiring the operating develop procedures for internal and external emergency notification and reporting.

Communication procedures and contact information for notifying the producer, receiver/consignee, transport subcontractors, regulatory agencies and emergency services of an emergency are all contained in the CEP. It contains information on contact names and positions within the respective organisations as well as office numbers and mobile numbers.

The document history section of the CEP details the date of publication, previous revision number, new revision number and a description of the revision. The CEP was last reviewed (Revision 5) on 24 January 2008.

Transport Practice 3.4: *Develop procedures for remediation of releases that recognise 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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 3.4 requiring the operation develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

The CEP contains procedures and information for remediation including recovery or neutralisation of solutions and solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris. The CEP subscribes to the recommendations of the International Cyanide Management Code in that no chemicals are to be added to a flowing waterway in the event of a cyanide spill as these may only exacerbate the situation with their own toxicity characteristics.

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

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

Summarise the basis for this Finding/Deficiencies Identified:

FFK is in FULL COMPLIANCE with Standard of Practice 3.5 requiring the operation periodically evaluate response procedures and capabilities and revise them as needed.

The CEP contains provisions for periodically reviewing and evaluating the CEP's adequacy and they are being implemented. The document history section of the CEP details the date of publication, previous revision number, new revision number and a description of the revision. The HSE Cyanide Manager is required to coordinate a review the CEP annually at a minimum, and after incidents, emergencies, emergency exercises and transportation audits and assessments that resulted from or affected the transportation of cyanide:

The CEP specifies the type and frequency of mock emergency exercises. FFK conducted a mock emergency drill in March 2008. The Mock Emergency Drill Report included observations and a corrective action plan. The corrective action included a requirement for the CEP to be updated.


GOLDER ASSOCIATES PTY LTD



Edward Clerk
 Manager Mining Environmental Services

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