

## **SUMMARY AUDIT REPORT FOR CYANIDE TRANSPORTATION OPERATIONS**

### ***Instructions***

1. The basis for the finding and/or statement of deficiencies for each Transport Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.
2. The name of the cyanide transportation operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report.
3. An operation undergoing a Code Verification Audit that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.
4. The Summary Audit Report and Corrective Action Plan, if appropriate, for a cyanide transportation operation undergoing a Code Verification Audit with all required signatures must be submitted in hard copy to:

**International Cyanide Management Institute (ICMI)  
888 16<sup>th</sup> Street, NW, Suite 303  
Washington, DC 20006, USA**

5. The submittal must be accompanied with 1) a letter from the owner or authorized representative which grants the ICMI permission to post the Summary Audit Report and Corrective Action Plan, if necessary, on the Code Website, and 2) a completed Auditor Credentials Form. The lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.
6. Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable cyanide transportation company.
7. The description of the cyanide transport company should include sufficient information to describe the scope and complexity of its operation.

## SUMMARY AUDIT REPORT

Name of Cyanide Transportation Consignor: CyPlus GmbH\_\_\_\_\_  
Name of Facility Owner: n.a. \_\_\_\_\_  
Name of Facility Operator: n.a. \_\_\_\_\_  
Name of Responsible Manager: Frank Harenburg (Vice President)\_\_\_\_\_  
Address: Rodenbacher Chaussee 4, 63457 Hanau-Wolfgang\_\_\_\_\_  
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### **Description of operation and of the Supply Chain #1 (Wesseling Plant to International Ports of Entry):**

This audit of the cyanide supply chain #1 was ordered by the CyPlus GmbH company. Their headquarter is located at Hanau-Wolfgang in Germany. The production site of CyPlus is located in Wesseling/Germany. This site had been re-certified under the ICMC requirements in 2009. From Wesseling the cyanide is shipped to gold-mines all over the world.

The CyPlus company acts as a Consignor for cyanide transportations. The scope of the CyPlus consignment is covering different supply chains. This report is focussing on the Supply Chain #1: Wesseling Plant to International Ports of Entry. This includes truck and rail transport from production plant to port of departure, and ocean transport to ports of entry in various countries.

The specific scope of this audit was the transportation chain of solid sodium cyanide between the production site at Wesseling/Germany and the different ports worldwide (e.g. Santos/Brazil, Puerto Deseado/Argentina or Mazatlan/Mexico) from where the cyanide is transported to the goldmines. The transport within these different countries from port of entry to customer's mine site is not part of the scope.



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Based on this situation the transportation process is structured into the following elements:

- A) Generic Part 1: transportation between the CyPlus production site at Wesseling/Germany and the Container Terminal at Cologne-Niehl/Germany by road
- B) Generic Part 2: transportation between the Container Terminal at Cologne-Niehl/Germany and the Container Terminals at Bremerhaven/Germany or Hamburg/Germany by rail
- C) Specific Parts 1-x: shipment between the Container Terminals at Bremerhaven/Germany or Hamburg/Germany and the various ports of entry (e.g. Santos, Puerto Deseado or Mazatlan) by sea

The driving initiator of these activities is the CyPlus organization (a 100 % subsidiary of Evonik-Degussa GmbH) who is acting as a consignor. CyPlus corporation is the signatory company which is in the role of the ICM Code's Consignor. The organization is not active in transporting cyanide but is contracting the full transport service by Evonik Services. Each single transportation order is released by CyPlus and regulated by Evonik-Services GmbH. They appoint the forwarding company Leschaco (located in Bremen/Germany and Hamburg/Germany) as Lead Logistics Provider (LLP) for the entire Evonik group of companies. Leschaco puts the different ocean carriers (Mediterranean Shipping Company, Maersk or Hapag Lloyd) in charge to organize the complete transportation chain including the precarriage to the respective port of departure ("carrier's haulage"). At the end of this complex construction the single transportations are initiated by the consignor CyPlus in Hanau/Germany (headquarter) in close cooperation with their production facility in Wesseling/Germany. Evonik-Services GmbH, having the mandate of CyPlus for logistics services procurement and transportation safety, is responsible for negotiation of sea freight rates and the respective contraction of the ocean carriers and for the maintenance of the dangerous goods data in the IT system. The subcontractors acting in the precarriages mentioned under A) and B) (e.g. TFG Transfracht as a super operator for road and rail transportation or the terminal operating companies such as HHLA Container Terminals or Eurogate Terminals) are directly contracted by the respective ocean carrier. Representatives and managers of all these companies and organizations took part in the audit sequences which were constituted at the locations of operation. To verify the statements of the involved parties, complete consignments of sodium cyanide along the transportation chain from Wesseling to the various ports of entry were checked on the basis of documents, records and evidences.

The most important organizations which are involved in this Supply Chain #1 and their roles or functions are as follows:



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### 1) CyPlus GmbH, Hanau

CyPlus corporation is the signatory company which is in the role of the ICMI Code's Consignor. The organization is not active in transporting cyanide but is contracting the full transport service by Evonik Services.

### 2) CyPlus GmbH, Wesseling

The CyPlus site at Wesseling is the production plant of sodium cyanide. They pack the product into wooden IBC's and prepare them for shipping.

### 3) Evonik Degussa GmbH, Wesseling

The service organisation of Evonik Degussa at Wesseling site provides CyPlus with logistic and handling services such as control of trucks, preparing the transportation documents, loading or labelling of the containers.

### 4) Evonik Services GmbH, Hanau-Wolfgang

The technical procurement is purchasing transportation and logistic services from dedicated suppliers and is following strict defined processes to evaluate appropriate suppliers who are able to perform cyanide shipment under controlled conditions.

### 5) Lexzau, Scharbau GmbH & Co. KG (part of the Leschaco organization), Hamburg

Leschaco is the overall coordinator of transport services and has no operating activities.

### 6) TFG Transfracht Internationale Gesellschaft für kombinierten Güterverkehr mbH & Co. KG, Frankfurt

TFG is responsible for the inland transport (precarriage) between Wesseling production plant and the container terminal at Köln-Niehl by truck and the following rail transportation to the port terminals at Bremerhaven and Hamburg as well. TFG is selecting the trucking company (Spedition Frisch firm). Each single transport event in this field between Wesseling and the port terminals is running exclusively under the control of TFG.

### 7) Frisch Spedition und Transport GmbH & Co. KG, Cologne

Transport company Frisch is operating the truck transport of cyanide containers between the production plant at Wesseling, the interim facility at Talke and the inland container terminal at Köln-Niehl (Cologne-Niehl).

### 8) Alfred Talke GmbH & Co. KG, Hürth

Talke is providing a temporarily back-up loading and storage interim facility if necessary. The facilities had been audited by CyPlus and were object in this supply chain audit as well. Talke is well equipped.



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### **9) CTS Container-Terminal GmbH, Cologne**

CTS is operating the inland container terminal at Köln(Cologne)-Niehl.

All above mentioned companies are generic involved in the supply chain #1 of cyanide to the international ports see generic parts 1 + 2 in the corresponding chapters 2.3 and 2.4). After arrival in the port terminals at Bremerhaven or Hamburg the specific parts of the transportation chain are following. With this report, the destinations at Santos, Puerto Deseado and Mazatlan are covered under this audit.

The organizations which are involved in the specific steps are:

### **10) Eurogate Container Terminal Hamburg GmbH**

### **11) Eurogate Container Terminal Bremerhaven GmbH**

Both Eurogate terminals are utilized by MSC to ship cyanide containers to Santos. They are organized as highly safe areas which are completely under control by the port police. The incoming containers are promptly transferred to the dedicated ocean vessels being booked.

### **12) MSC Mediterranean Shipping Company S.A. Geneva**

MSC is operating the ocean shipment to the port of Santos. The MSC organization has implemented an international structured management system to regulate and to control the shipments of dangerous goods with high expertise, responsibility and experience.

### **13) NTB North Sea Terminal Bremerhaven GmbH & Co.**

NTB terminal is utilized by Maersk to ship cyanide containers to Puerto Deseado. It is organized as a highly safe area which is completely under control by the port police. The incoming containers are promptly transferred to the dedicated ocean vessels being booked.

### **14) Maersk Deutschland A/S & Co. KG**

Maersk is operating the ocean shipment to the port of Puerto Deseado. The Maersk organization has implemented an international structured management system to regulate and to control the shipments of dangerous goods with high expertise, responsibility and experience.

### **15) HHLA Container Terminal Burchardtkai GmbH**

HHLA terminal is utilized by Hapag Lloyd to ship cyanide containers to Mazatlan. It is organized as a highly safe area which is completely under control by the port police. The incoming containers are promptly transferred to the dedicated ocean vessels being booked.



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### 16) Hapag Lloyd AG

Hapag Lloyd is operating the ocean shipment to the port of Mazatlan. The Hapag Lloyd organization has implemented an international structured management system to regulate and to control the shipments of dangerous goods with high expertise, responsibility and experience.

All relevant players and involved organizations had been inspected during the audit. Those assessments were covering visits at the locations (production site, interim storage area, inland terminal, Port terminals and administration offices of the ocean carriers as well), interviews with the involved partners and employees, inspections of IT systems and checks of documents.

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### *Auditor's Finding*

This operation (Supply Chain #1) is

- ☒ in full compliance
- ☐ in substantial compliance \*(see below)
- ☐ not in compliance

with the International Cyanide Management Code.

\* For cyanide transportation operations seeking Code certification, the Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: DQS GmbH; August-Schanz-Str. 21; D-60433 Frankfurt/Main\_\_\_\_  
Audit Team Leader: Dr. Klinken, Heinz Theo      E-mail: okt.klinken@t-online.de  
Names and Signatures of Other Auditors: not applicable\_\_\_\_\_

\_\_\_\_\_  
Date(s) of Audit: Nov, 17<sup>th</sup> – 19<sup>th</sup>, 2010; Jan 3<sup>rd</sup> – 5<sup>th</sup>, 2011 and Mar 25<sup>th</sup> – 27<sup>th</sup>, 2011 (documentation assessment)\_\_\_\_\_

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.

Quality Distribution Inc.  
Name of Facility

  
\_\_\_\_\_  
Signature of Lead Auditor

Apr 10<sup>th</sup>, 2011  
Date

CyPlus GmbH  
Name of Consignor

  
\_\_\_\_\_  
Signature of Lead Auditor

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### ***A) Road Transportation:***

#### ***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 CyPlus organization (by means of the technical procurement of Evonik Services GmbH) is purchasing transportation and logistic services from dedicated suppliers. Especially the department "Category Transportation Safety" is following strict defined processes to evaluate appropriate suppliers who are able to perform cyanide shipment under controlled conditions. In this certain case of Supply Chain #1 the carriers such as MSC, Maersk and Hapag Lloyd are contracted by CyPlus as main suppliers. These ocean carriers are purchasing TFG as a subcontractor to transform the shipment to the German ports (Bremerhaven, Hamburg) as a carrier's haulage in compliance with the code.

The distance between the production plant of CyPlus at Wesseling and the CTS terminal at Cologne-Niehl is about 20 miles. The route runs through the greater area of Cologne city and is in a very good condition (paved highways, organized and controlled traffic system according to standard of well developed countries with corresponding infrastructure). The trucks are equipped with navigation system and digital control system. The routes are selected under the focus to avoid population density; they consider infrastructure, pitch and grade and the prevalence and proximity of water bodies and fog as well. In case of construction alternative routes will be calculated to manage the corresponding risks. As part of TFG's quality management system an extensive documentation has been established. In addition, appropriate procedures, working instructions or significant manuals are in place. In this specific case, infrastructural risks and problems which are caused by bad road conditions etc. are very rare. The designated route between the CyPlus manufacturing facility (certified to ICMC standards) and the CTS terminal follows the highway system in Germany. The local routes between the site and the terminal are approved for hazardous materials transportation. The drivers are mandatory trained for the transport of packaged dangerous goods, long-time experienced and they know the specific road conditions as well. Each transportation is supervised by satellite tracking system. Because of this additional safety and security measures, convoys or escorts, which both is fully unusual in Europe, are not needed. TFG is cooperating with the ICE (International Chemistry Environment) in Europe, which is supported by the CEFIC organization (European Chemical Industry Council).



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If emergency action needs to be taken by drivers when leaks, spills or fire occur during transport, the instruction given in the "Transport Emergency Card" (ADR "Instructions in writing") must be followed immediately. In this special case, the external responders such as the plant at Wesseling, the medical organization of Evonik-Degussa at Wesseling site, local fire-brigades (municipal fire-brigade of Wesseling) or the local hospitals are well informed about the handling and transportation of cyanide and the about potential risks of cyanide. TFG is coordinating and contracting external trucking companies. In this specific case, the road transportation from Wesseling to Cologne-Niehl is operated by Frisch company. TFG has elaborated a profile of requirements for subcontractors (dated on Jan 01<sup>st</sup>, 2009). This profile needs to be signed by TFG and subcontractor's company and is part of the contract.

In addition, the consignor CyPlus has implemented a Standard Operating Procedure (SOP) "Supervision – Internal Audits" to ensure that the procedures of the established system to manage cyanide shipments (as mentioned above) are reviewed at regular intervals.

*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                      Transport Practice 1.2  
   ☐ in substantial compliance with  
   ☐ not in compliance with

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

The TFG company only employs people who have a commercial driver license to operate its transport vehicles according to the law of Germany. The personnel are qualified and trained in an appropriate manner to fulfil the internal TFG and CyPlus safety requirements. To transport cyanide the drivers need to have a valid mandatory training certificate for the transport of packaged dangerous goods according to ADR. All drivers performing the corresponding Cyanide transportations between CyPlus manufacturing facility and the terminal are listed at TFG/Frisch. Their status of qualification and training scope is documented. For training reasons, charts or explanations of the Material Safety Data Sheets have been used. These statements are true for all contractors which are involved in the transportation process.

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

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



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

For packaging and transportation of cyanide standardized equipment is in use. This covers the packaging of the cyanide in wooden boxes as well as the overseas containers where those boxes are transported in. All the freight containers come from ocean carriers and they are specified especially for the use to transport packaged dangerous goods, such as sodium cyanide. Containers, chassis and trucks as well have to fulfil the requirements of the European legislation for handling and transporting cyanide. A transportation unit covers one overseas container that is packed with 20 IBC's containing 1.000 kg cyanide each. The gross weight is about 21.100 kg in accordance to the bill of lading. With respect on the electronic data base to select the equipment overloading is ruled out. To control the subcontractors like Frisch company TFG performs checks and audits in a regular manner.

### 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 freight containers which are used for the transportation of solid cyanide are usually in property of the ocean carriers. The wooden boxes which are used to pack the solid cyanide (together with PE inlining bags) are specified. Technical data and dimensions are well defined. They are classified and licensed for hazardous goods transportation according to UN registration. The drivers are to follow the established delivery procedures described in the requirements for transportation of dangerous goods to ensure the integrity of producer's packaging. The freight containers are sealed after loading; the seals are registered on the transportation documents. Due to this fact the drivers will not come into contact with the wooden boxes nor with the product. Vehicle inspections prior to each departure are performed according to the Evonik and TFG procedures for dangerous goods transportation. The depending trucks are checked first when entering the Wesseling site and second before and after the loading process. The preventive maintenance program is well established and documented. The technical equipment (trucks etc.) undergoes different types of inspection (annual inspection) according to German law. The consumption of drugs or alcohol is strictly forbidden in accordance to the law and to the contracts with TFG. Records retention is ensured by software tools, electronic files or by paperwork in defined binders. These statements are true for all contractors which are involved in the transportation process.



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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

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

The shipments of cyanide by sea are transported in compliance with the IMDG Code.

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: (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 is mentioned in this report.)*

All trucks / transporters are equipped with a satellite communication system. All drivers have cell phones and the relevant phone numbers are all available in different documents. In cases of breakdown of the satellite system drivers use their cell phones. There are different tools in place to control the inventory and the amount of cyanide during transportation. After finishing the loading process, the containers are to be sealed; the seal no. is documented on the transportation documents. The bill of lading indicates the amount of cyanide in transit with respect to the controlled weight of each 1.000 kg-box which are checked at the production facility. Material Safety Data Sheets are available and in place. These statements are true for all contractors which are involved in the transportation process.

**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.*



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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: \**

In some few cases the cyanide boxes are stored temporarily in an interim warehouse at Cologne-Hürth (at the company Alfred Talke Logistic Services). The warehouse has the permit of the local authorities to store dangerous goods such as solid cyanide. It is one of the first warehouses in Germany to be certified according to packaging and warehouse regulations by SQAS (Safety and Quality Assessment System under control of CEFIC). The required warning signs were in place. Visitors and auditors as well need to wear personal protection equipment. One section of the warehouse has a specific permission to store cyanide. This section within the fenced area of the Talke facilities is locked and supervised by cameras. A gatekeeper is present on 24/7. This section is under roof; contact of the packed cyanide with water or other chemical materials is impossible. The Talke company has implemented an appropriate system to manage cases of emergency in close cooperation and with support of the CyPlus organization.

In cases of cyanide spill a corresponding information chain (internal and external communication to CyPlus) is organized and trained. The Talke employees are well informed about the risks in handling of cyanide; they are practicing emergency simulations with cyanide periodically. Spill equipment is in place.

**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:*

There are several emergency response plans in place for potential cyanide releases. These instructions declare that the drivers have immediately to contact local authorities and advising the nature of the emergency and the material involved. The most important supporting organizations are CEFIC (European Chemical Industry Council) and the German Chemical Industry Association (VCI).



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The VCI has initiated all over Germany a system called TUIS (Transportation-Emergency-Information-and-Response-System). This emergency response system is available 24 hours on 365 days per year. Police, authorities, physical doctors or municipal fire-brigades are on duty as well. The drivers have information sheets and safety instructions onboard (with telephone numbers, name of contact persons etc.). All these documents support the driver to react in an appropriate manner in case of emergency. Due to the fact that the road distances between production plant, terminal and (in some cases) the external warehouse are very short the emergency response plan needs no specific regulations for different transportation routes. The design of the equipment is considered in the ERP's. The TUIS organization is well informed about this. The storage facility has its own emergency response planning. Response actions are defined considering the different anticipated emergency situations. The role of outside responders, medical facilities or communities are covered with respect to the virtual TUIS organization, being the national scheme of the European ICE system in Germany. The emergency hotline is published in different instructions and procedures. TUIS is essential for the success of the emergency response activities. TUIS has multilingual communication capabilities, is operational 24 hours at seven days per week and could record all communication related to an emergency event. The Evonik Degussa fire brigade is member of the TUIS organization and therefore will be contacted directly in case of any emergencies involving cyanides in Germany.

*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 transporter provides emergency response training on different levels. Knowledge and capability of the management is assured by training courses and practical exercises. In fact, all drivers hired by TFG and dealing with dangerous goods, have to pass the mandatory training for the transport of packaged dangerous goods according to the ADR and have to maintain the certificate, which has to be renewed every five years. This training covers emergency response activities. The descriptions of the specific emergency response duties are stated in the "Instruction in Writing" (transport emergency cards) in section 5.4.3 of the ADR regulations. All cyanide transportation trucks are equipped with a spill kit to respond to emergencies. All trucks are equipped with fire extinguisher, ladder or spill response material. Completeness is controlled in accordance to the daily driver vehicle inspection report or when entering the Wesseling site to assure its availability. These statements are true for all contractors which are involved in the transportation process.



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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:*

There are different procedures and emergency response plans in place to regulate those cases. The internal procedures of TFG, Talke and CyPlus define the emergency response activities. These procedures refer among others to TUIS and CEFIC. Internal and external emergency notification as well as reporting procedures are included in the TUIS process. Internal emergency response plans are kept current by periodical checks

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

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

All remediation activities are done by external contractors but initiated and controlled by the local authorities. The remediation procedures for cyanide release are communicated to the external contractors that undertake the remediation activity. TUIS, Evonik and the contracted companies make sure that the right and correct steps and activities are done and that the authorities are involved. This includes that the response companies do not use any sodium hypochlorite, ferrous sulphate and hydrogen peroxide.

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

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

The emergency response plans and the corresponding procedures are reviewed and evaluated periodically. Mock emergency drills are conducted all over the involved companies. Outdoor field tests are performed to train emergency response in specific cases (e.g. damage assessment etc.). Even the TUIS processes are trained and drilled periodically.



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### ***B) Rail Transportation***

After delivering the container by truck to the Cologne-Niehl terminal and checking the corresponding documents the container is lifted from the chassis onto the railroad car. It is not allowed to keep cyanide containers overnight. To handle leakages or spills in a safe manner a specific containment to rescue damaged containers is provided. The emergency response plan is available to the terminal operators.

The railway shipment to Bremerhaven or Hamburg terminal is provided by TFG Transfracht. The route of the train is following an elaborated schedule with dedicated passages and defined times. It is possible to monitor the exact route of the train when passing specific checkpoints. In cases of emergency the train conductor has to inform the next control room in charge; they will release the emergency response plan. In cooperation with police, fire-brigade and TUIS the emergency response plan should run according to schedule.

The information and response scheme in case of rail accidents with dangerous goods is determined per flowchart and is running through TUIS before informing the Evonik headquarter. All involved parties are trained well in a regular manner. The final destination of the rail transport (without any stopover) are the container terminals at Bremerhaven or Hamburg, respectively. The different terminal operating companies are dedicated terminals for the utilized shipping lines (MSC, Maersk, Hapag Lloyd). The container terminals at the ports of Bremerhaven and Hamburg are operating a full implemented management system.

The container terminals at Bremerhaven and Hamburg are operating in compliance with the ISPS-Code security regulations (International Ships and Port Security Code). Among others, the following security measures and proceedings are obligatory:


- Access control of terminal personnel (ID card, turnstiles)
- Control of the access points that are secured with fences, cameras, motion sensors
- Permanent monitoring of the terminal
- Monitoring staff has to check persons and inspect luggage and vehicles
- Staff members always wear personal protection equipment (safety helmet, safety jacket and safety shoes)
- All movements to and on the terminal without announcement are generally forbidden
- No access to the terminal, including the buildings
- Checking ship's personnel for identity and corresponding vessel.

### ***C) Sea Transportation***

a) The sea passage from Bremerhaven or Hamburg to Santos/Brazil is operated by the ocean carrier MSC. For this reason MSC has to fulfil different requirements which are based on international or maritime regulations to determine aspects such as the technical equipment of ships, the pollution of the sea or the packaging and stowing of dangerous goods. For example:

- ISPS Code (International Ships and Port Security Code)
- SOLAS (International Convention for the Safety of Life at Sea)
- MARPOL (International Convention for the Prevention of Pollution from Ships)
- IMDG Code (International Maritime Dangerous Goods Code)
- ISM Code (International Safety Management Code).

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The management of all these requirements are based on data control and operational control. In certain cases MSC is obtaining specific documents of compliance, e.g. to state that MSC has implemented a safety management system that complies with the requirements of the ISM code, issued under the provisions of the SOLAS convention (by RINA Registro Italiano Navale). Nevertheless, and in accordance to the remarks of the MSC management, the port of Santos is supposed to be in very good condition and well equipped to handle the containers with sodium cyanide.

The further transportation of this freight is not part of this audit.

b) The sea passage from Bremerhaven to Puerto Deseado is operated by the ocean carrier Maersk. For this reason Maersk has to fulfil different requirements which are based on international or maritime regulations to determine aspects such as the technical equipment of ships, the pollution of the sea or the packaging and stowing of dangerous goods. For example:

- ISPS Code (International Ships and Port Security Code)
- SOLAS (International Convention for the Safety of Life at Sea)
- MARPOL (International Convention for the Prevention of Pollution from Ships)
- IMDG Code (International Maritime Dangerous Goods Code)
- ISM Code (International Safety Management Code)

Maersk operates a container booking and tracking system (Global Customer Service System, GCSS). This is also the management tool for handling the dangerous goods cargo to control the stowage position of the hazardous goods containers. All of Maersk's vessels are registered by Lloyd's Register Group which provides classification and certification of ships. In the same manner Lloyd's inspects and approves important components and equipment of the vessels. Nevertheless, and in accordance to the remarks of the Maersk management, the port of Puerto Deseado is supposed to be in very good condition and well equipped to handle the containers with sodium cyanide.

The further transportation of this freight is not part of this audit.

c) The sea passage from Hamburg to Mazatlan/Mexico is operated by the ocean carrier Hapag Lloyd. For this reason Hapag Lloyd has to fulfil different requirements which are based on international or maritime regulations to determine aspects such as the technical equipment of ships, the pollution of the sea or the packaging and stowing of dangerous goods. For example:

- ISPS Code (International Ships and Port Security Code)
- SOLAS (International Convention for the Safety of Life at Sea)
- MARPOL (International Convention for the Prevention of Pollution from Ships)
- IMDG Code (International Maritime Dangerous Goods Code)
- ISM Code (International Safety Management Code)



CyPlus GmbH  
Name of Consignor

Signature of Lead Auditor

Apr 10th, 2011  
Date



## SUMMARY AUDIT REPORT

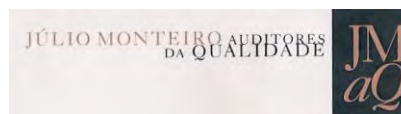
Hapag Lloyd operates a container booking and tracking system (FIS, Freight Information System). This is also the management tool for handling the dangerous goods cargo to control the stowage position of the hazardous goods containers. FIS is running worldwide at all Hapag Lloyd offices and agencies as a unique system to control the processes; deviations are impossible, user authorization is defined. Nevertheless, and in accordance to the remarks of the Hapag Lloyd management, the port of Mazatlan is supposed to be in very good condition and well equipped to handle the containers with sodium cyanide.

The further transportation of this freight is not part of this audit.

CyPlus GmbH  
Name of Consignor

Signature of Lead Auditor

Apr 10th, 2011  
Date



***INTERNATIONAL CYANIDE  
MANAGEMENT INSTITUTE***

***Cyanide Transportation Supply Chain***

***Summary Audit Report***

***For The***

***International Cyanide Management Code and  
Cyplus GmbH/ Germany & Santos Brazil Port***

***Terminal / Brazil***

***Addition to CyPlus GmbH Supply Chain #1***

**[www.cyanidecode.org](http://www.cyanidecode.org)**

**June 2012**

The International Cyanide Management Code (hereinafter “the Code”), this document, and other documents or information sources referenced at [www.cyanidecode.org](http://www.cyanidecode.org) are believed to be reliable and were prepared in good faith from information reasonably available to the drafters. However, no guarantee is made as to the accuracy or completeness of any of these other documents or information sources. No guarantee is made in connection with the application of the Code, the additional documents available or the referenced materials to prevent hazards, accidents, incidents, or injury to employees and/or members of the public at any specific site where gold is extracted from ore by the cyanidation process. Compliance with this Code is not intended to and does not replace, contravene or otherwise alter the requirements of any specific national, state or local governmental statutes, laws, regulations, ordinances, or other requirements regarding the matters included herein. Compliance with this Code is entirely voluntary and is neither intended nor does it create, establish, or recognize any legally enforceable obligations or rights on the part of its signatories, supporters or any other parties.

## **SUMMARY AUDIT REPORT FOR CYANIDE TRANSPORTATION OPERATIONS**

### ***Instructions***

1. The basis for the finding and/or statement of deficiencies for each Transport Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.
2. The name of the cyanide transportation operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report.
3. An operation undergoing a Code Verification Audit that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.
4. The Summary Audit Report and Corrective Action Plan, if appropriate, for a cyanide transportation operation undergoing a Code Verification Audit with all required signatures must be submitted in hard copy to:

**International Cyanide Management Institute (ICMI)  
1400 / Street, NW, Suite 550  
Washington, DC 20005, USA.**

5. The submittal must be accompanied by 1) a letter from the owner or authorized representative which grants the ICMI permission to post the Summary Audit Report and Corrective Action Plan, if necessary, on the Code Website, and 2) a completed Auditor Credentials Form. The lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.
6. Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable cyanide transportation company.
7. The description of the cyanide transport company should include sufficient information to describe the scope and complexity of its operation.

## SUMMARY AUDIT REPORT

Name of the Consignor: CyPlus GmbH, Germany  
Name of Facility Owner: CyPlus GmbH, Germany  
Name of Responsible Manager: Antonio Dominguez Perez (ESHQ Compliance Manager)  
Address: Rodenbacher Chaussee 4, 63457 Hanau, Germany  
State/Province: Hessen  
Country: Germany  
Telephone: (49) 6181594234  
Fax: (49) 6181 5974234  
E-Mail: [Antonio.Dominguez-Perez@cyplus.com](mailto:Antonio.Dominguez-Perez@cyplus.com)

## Port:

Name of Cyanide Transportation Facility: Santos Brasil Port Terminal Ltd.  
Name of Facility Owner: Santos Brasil Port Terminal Ltd.  
Name of Facility Operator: Santos Brasil Port Terminal Ltd.  
Name of Responsible Manager: Mr. Fernando Zibelli Celestino (SHE Coordinator)  
Address: Av. Santos Dumont, s/n. (Vicente de Carvalho), 11460-970, Guarujá, SP, Brazil.  
State/Province: São Paulo  
Country: Brazil  
Telephone: (55+13) 3344-1088  
Fax: (55+13) 7805-4791  
E-Mail: [coordsegtrab@santosbrasil.com.br](mailto:coordsegtrab@santosbrasil.com.br)

## Location detail and description of operation:

The port of Santos is divided into several parts. The biggest one is where the ships coming from Europe are unloading the goods. It is located between a residential area to the north and east and an industrial area to the south.

The area where the cyanide containers are stored is dedicated to dangerous goods taking into account the compatibility to store different chemicals. Per example it is not allowed to store flammable liquids or acids together Sodium Cyanide. The port respects the separate storage according to the product class but also to the compatibility (reaction in case of an accident).

The port is operated by Santos Brazil S.A.

Accessibility of Location/Site

(e.g. distance from major road or highway, connection with railroad)

The access to the port is clearly signed and is going between a residential area for about 4 km until the trucks reaches the highway. This very important point is part of the transport company Niquini who performs the transport between the port and the mine sites in Brazil. Niquini is certified according to the ICMC Code.

The port has also a railway access, but this is not used for the transport of cyanides.

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Name of Facility: Santos Brazil Port Terminal

Date: 12/march /2012

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*Signature of Lead Auditor Reviewer*



## SUMMARY AUDIT REPORT

Natural Disasters with the Potential to cause severe Damages*(e.g. earthquake, flooding, storms; occurrence in the past)*

Up to now, no natural disasters have occurred in the port of Santos.

Potential Exposure to adjacent Hazardous Situations*(e.g. adjoining tank farms with flammable liquids, chemical plants, other industries)*

The only source of flammable liquids, besides the containers with flammable material, is a fixed 60m<sup>3</sup> tanks for diesel for the trucks of the port.

No chemical plant or other source of danger is situated –in the surroundings of the port.

General experience in the company with cyanides*Comments/remarks (if any):*

Santos Brazil (and earlier Local Frio) was handling Cyanides in this part of the port since the beginning, for more than 9 years (2003). Until today no incident or accidents have occurred, neither to persons nor to the environment.

The area where the cyanide containers are stored is dedicated to dangerous goods taking into account the compatibility to store different chemicals. Per example, it is not allowed to store flammable liquids or acids together Sodium Cyanide. The port respects the separate storage according to the product class but also to the compatibility (reaction in case of an accident).

During this due diligence audit on March 12<sup>th</sup>, 2012 the following persons attended the meeting:

Adriana Firabelli Fialho – Logistic& Comercial – Santos Brasil

Anselmo Carvalho – Import Customer Service – Hamburg Süd

Alexandre Lago – Dangerous Goods Manager – Hamburg Süd

Erico Barsan – Quality – Santos Brasil

Aurelia Cordon – Customer Service – Evonik/CyPlus

Andreia Miranda – ESH – Evonik/CyPlus

Viviane .. – ESH – Santos Brasil

Ricardo San – Occupational Health – Santos Brasil

Andre Luiz Lima – Occupational Health – Santos Brasil

Anderson Fagundes da Silva – Port Security – Santos Brasil

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*



## SUMMARY AUDIT REPORT

*Auditor's Finding*

This operation is

☒ in full compliance

☐ in substantial compliance \*(see below)

☐ not in compliance

with the International Cyanide Management Code.

\* For cyanide transportation operations seeking Code certification, the Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: Julio Monteiro Auditores da Qualidade Ltda.

Audit Team Leader (Reviewer): Julio C. M. Monteiro, Certified by ICMI as Lead Auditor and Transportation Qualified .

E-mail: jmaq@ig.com.br

Names of Other Auditors: Antonio Dominguez Perez and Andreia Miranda (Evonik/CyPlus Auditors)

Date(s) of Audit 12/ March/ 2012.

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.



*Signature of Lead Auditor Reviewer*

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*



## 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     Transport Practice 1.1  
                                  ☐ in substantial compliance with  
                                  ☐ not in compliance with

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

The Port of Santos was submitted to a due diligence audit (DDA) by CyPlus. The DDA was reviewed and all questions related to the ICMI transport questions were answered. Nevertheless, this practice is not applicable to the Santos Port. All activities related to Transport Practice 1.1 are performed directly by CyPlus.

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     Transport Practice 1.2  
                                  ☐ in substantial compliance with  
                                  ☐ not in compliance with

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

Santos Brazil (and earlier Local Frio) was handling Cyanides in this part of the port since the beginning, for more than 9 years (2003). Until today no incident or accident has occurred, neither to persons nor to the environment.

Evidences is available of a list of all necessary permits, also a copy of all permits itself. It consists on License for Operation, Storage of Chemical Products, Fire Protection/ Fire Brigade, Federal Police, Environmental Department (CETESB), Safety / Security License by the Brazilian Army.

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

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

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Name of Facility: Santos Brazil Port Terminal

Date: 12/march /2012  
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*Signature of Lead Auditor Reviewer*

## SUMMARY AUDIT REPORT

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

After nationalisation of the NaCN, the 1m3 boxes are transferred from a 20' into a 40' container. This operation is needed to ensure the safe unloading of the boxes at the mine site. All boxes have an impermeable big bag inside the wooden boxes. The liner inside of the big bag has been heat-sealed at the manufacturer site of CyPlus in Germany (CyPlus is ICMC re-certified). This transfer operation is performed outside the warehouse, behind the storage area of dangerous goods. During the unloading, the procedure is vigilance by one warehouse supervisor and one safety inspector.

Both employees and the forklift driver have been trained about Sodium Cyanide.

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:*

This Practice is not applicable. Nevertheless, the port performs irregularly drugs and alcohol tests. The Port security checks all personnel before entry. Inspection of the used machinery is done on a regular basis and before use. Evidence has been checked by CyPlus with a DDA.

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:*

This Practice is not applicable. Nevertheless, all receiving containers are locked and transported according to DG Code and IMO.

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:*

This Practice does not apply to the Port of Santos. Nevertheless, CyPlus will be immediately informed if an incident/accident happens on board of the ship or on the port site.

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*



## SUMMARY AUDIT REPORT

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

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

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

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

There is no connection at the port to water course for domestic use.

Potable water is found in the kitchen and in the showers area for the worker, both far away from the area of dangerous goods and without direct possible connection to chemicals.

Even there is no electronic alarm device for spillages installed (only possible for liquids, not for solids), the persons working in this dangerous goods area are instructed to report any type of spillage immediately to the ESH Department or Internal Fire Brigade.

A visual inspection of the containers is performed a) during the unloading from the ship b) during the weighting of the container on the balance, before reloading from a 20' into a 40' container.

Due to the construction of the ground of the whole port a discharge of chemicals is not possible at all.

**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 Port has a Master Emergency Plan and also different specific ER Plans, also one for chemical products. Also, there is an ER Plan elaborated between Anglo Gold and CyPlus and the

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*

## SUMMARY AUDIT REPORT

transport company Niquini itself has an ER Plan also. The ER Plan of the Port consists in calling the importer of the product (Anglo Gold). Anglo Gold will call SOS Cotec as ER service provider.

A Doctor is available at the Port during dayshift. The late- and nightshift is occupied by first aid trained personnel. The reaction response time is less 5 minutes. MSDS (with special antidote information) and brochure for antidote is available.

Only SOS Cotec will handle cyanide in case of a spillage. SOS Cotec is trained by Hazmat and Hazwopper training. SOS Cotec has the latest MSDS.

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

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

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

Part of the Emergency Plan is the evacuation of the port personnel to different well defined areas.

The Fire Brigade have special type A, B and C suit with autonomous air supply. Inside the port around 200 persons are trained as Fire Fighters, divided in the 4 working shifts and in different areas.

Outside, the City Fire Brigade is just 5 minutes far away. They have a car parked just outside the port entrance.

The spillage recovery is performed by SOS Cotec, either by information through Anglo Gold, CyPlus, Transporter or the Port directly. SOS Cotec is fully equipped and employees are fully trained professionals for the recovery of cyanide spillages.

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

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

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

The Crisis Plan has been elaborated together with the Communities of Santos and Guarujá.

The person in charge of the ER Plan is defines as the ESH Manager of the Port. It exist an organization chart with function. The contact with the Police are covered in the ER Plan

The contact with the owner (Anglo Gold) and the supplier (CyPlus) is well defined in the overall.

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*

## SUMMARY AUDIT REPORT

The Port has the contact phone numbers of SOS Cotec in case of an emergency and that the owner of the product can not be reached.

The Port has informed the Hospital of Guarujá about the presence of Cyanide in the Port.

It was evidenced that the operation designed and implemented a communication in the Emergency Plan, addressing contact information for external and internal stake holders, including the Cyanide Transporter (MSC) and public Authorities. The communication procedure is kept updated.

*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 Transport Practice 3.4  
☐ in substantial compliance with  
☐ not in compliance with

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

It was evidenced that the operation designed and implemented procedures for remediation of releases.

The spillage recovery is performed by SOS Cotec, either by information through Anglo Gold, CyPlus, Niquini or the Port directly. SOS Cotec is fully equipped and employees are fully trained professionals for the recovery of cyanide spillages. In case of a fire inside a cyanide container, the Fire Brigade and the personnel of the warehouse are instructed to use alkaline powder agent only.

A special dedicated company (external) is contracted to perform all necessary checks of hydrants, fire extinguisher, hoses, connections etc.

*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

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

It was evidenced that the operation planned and implemented emergency simulation exercises. Was evidenced that last emergency mock drill related to chemical products accident and fire, was performed in September 2011. Periodically evaluate response procedures and capabilities and revise them as needed. The Risk Management System is part of the ISO 14001 and OSHAS 18001 Certification.

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Name of Facility: Santos Brazil Port Terminal

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*Signature of Lead Auditor Reviewer*

**ICMI CYANIDE CODE  
SUMMARY AUDIT REPORT  
VERIFICATION OF DUE DILIGENCE AUDIT**

**CYANIDE TRANSPORTATION  
SUPPLY CHAIN #1 – WESSELING PLANT TO  
INTERNATIONAL PORTS OF ENTRY**

**CYPLUS GMBH  
RODENBACHER CHAUSSE 4  
63457 HANAU-WOLFGANG  
GERMANY**

**Submitted to:  
International Cyanide Management Institute  
1400 I Street, NW – Suite 550  
Washington, D.C. 20005  
USA**

**AUTHOR:  
LULU INTELLIGENT ORGANIZATION  
CONSULTING • TRAINING • AUDITS • CERTIFICATION • VERIFICATION  
DR.-ING. BENNO STEINWEG  
REGISTERED LEAD AUDITOR  
ISO 9001, ISO 14001, ISO 50001, ISO/TS 16949, KTA 1401, ICMC  
HANS-BOECKLER-STR. 4  
HOCHHEIM, 65239 - GERMANY**



Name of Cyanide Transportation Facility: CyPlus GmbH (Evonik Industries)  
 Name of Facility Owner: n/a  
 Name of Facility Operator: n/a  
 Name of Responsible Manager: Antonio Dominguez-Perez  
 (ESHQ Compliance Manager)  
 Address: Rodenbacher Chaussee 4, 63457 Hanau  
 State/Province: Germany  
 Telephone: +49-6181-59 4234  
 Fax: +49-6181-59 6940  
 E-Mail: Antonio.Dominguez-Perez@cyplus.com

### **Location detail and Description of operation:**

The German company CyPlus GmbH is part of the Evonik Industries Group. CyPlus produces cyanide as a manufacturer in the German Wesseling plant. From Wesseling, Germany the cyanide is distributed in different packaging variations using different supply chains. The customers / the gold mines can be found on different sites across the world. Accordingly different supply chains are utilized. In this report, the supply chain no. 1 is covered, starting from production site in Wesseling / Germany to the Ports of entry in different countries.

### **Supply from the production site to the customers / mines**

CyPlus's production site in Wesseling, Germany is ICMC-certified and registered since July 24, 2006 with no suspension since then. From Wesseling site the cyanide is shipped to gold-mines all over the world. The CyPlus company acts thus also as a consignor for cyanide transportations. The scope of the CyPlus consignment is covering different supply chains. The shows the different supply chains, as they are actually listed at the <http://www.cyanidecode.org> – webpage.

Supply Chain No. 1 covers the portion from the production site, across the German overseas ports (Hamburg and Bremerhaven) to the respective ports of entry.

This report is focussing the introduction of a new overseas vessel carrier in this supply chain.

Supply Chain #1 - Plant to International Ports of Entry	Includes truck transport by several trucking companies from the production plant in Wesseling, Germany to the the Container Terminal at Cologne-Niehl, Germany, rail transport to the Container Terminals at Bremerhaven or Hamburg, Germany, ocean transport to the Ports of Deseado, Argentina, Santos, Brazil and Mazatlan, Mexico, and management at the Port of Santos, Brazil.
Supply Chain #2 - Argentinean Supply Chain	Transport of sodium cyanide within Argentina including its arrival at the port of Deseado and trucking to customer mine sites by Translogística Oroz S.A.
Supply Chain #3 - Brazil Supply Chain	Transport within Brazil from the port of entry to customer mine sites.
Supply Chain #4 - Mexican Supply Chain	Transport within Mexico from the port of entry to customer mine sites.
Supply Chain #5 - Turkey Supply Chain	Transport of sodium cyanide within Turkey including its arrival at the port of Izmir and trucking to customer mine sites by Anhan Nakiyat.

Supply Chain #6 - Finland Supply Chain	Transport within Finland from the port of entry to customer mine sites.
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Table 1: CyPlus's supply chains, actually listed at [www.cyanidecode.org](http://www.cyanidecode.org) – webpage. # 1, 2 and 5 certified yet.

### **Short description of operation:**

In this report the verification of the single items of the ICMC transportation protocol are summarized. The sub-headlines of this chapter are structured according to the standard. The audit observations / findings are assigned to the questions of the ICMC transportation protocol. **Each question has been answered positive and has been proofed by the audited organisation/s.**

The observations, findings and results are summarized within the following sections. The numbering is in accordance to the ICMC "Cyanide Production Verification Protocol, January 2011" which is released by the International Cyanide Management Institute (ICMI).

This report mainly consists of the results of evaluating a due diligence audit, performed by consignor CyPlus at the shipping company's (Hamburg Sud) site. This audit was done focussing the quality, environmental and safety system, the operations and activities during oversea shipments.

The CyPlus transportation operations (manufacturer in Germany and transporter along the supply chains to the mines) are subdivided in different supply chains (actually in total 6; 3 of them listed as certified at ICMI's webpage). Supply Chain #1 is certified since June 02, 2011. The respective Summary Audit Report is dated on April 10, 2011. It shows the 16 relevant players and organizations being involved in that chain. The intention is, to add the shipping company "Hamburg Sued" (Headquarter located in Hamburg, Germany) as a further service supplier into supply chain No. 1.

The due diligence review of Hamburg Sud organization was conducted using information on file delivered by CyPlus (especially June 2012 due diligence audit report) and information available publicly.

### **Description of supply chain #1**

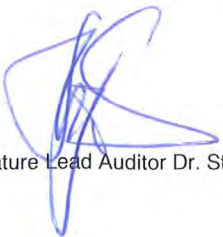
The transportation process is structured into the following elements:

- A) Generic Part 1: transportation between the CyPlus production site at Wesseling/Germany and the Container Terminal at Cologne-Niehl/Germany by road
- B) Generic Part 2: transportation between the Container Terminal at Cologne-Niehl/Germany and the Container Terminals at Bremerhaven/Germany or Hamburg/Germany by rail
- C) Specific Parts 1-x: shipment between the Container Terminals at Bremerhaven/Germany or Hamburg/Germany and the various ports of entry (e.g. Santos, Puerto Deseado or Mazatlan) by sea

Operating parties: see the 16 relevant players and organizations being involved in that chain, listed in Supply chain No. 1 Summary Audit Report dated on April 10, 2011.

The intention is, to add the shipping company "Hamburg Sued" as a further / an alternative service supplier into supply chain No. 1.

In this report the verification of the single items of the ICMC transportation protocol are summarized. The sub-headlines of this chapter are structured according to the standard. The audit observations / findings are assigned to the questions of the ICMC transportation protocol. **Each question has been answered positive and has been proofed by the audited organisation/s.**



(Signature Lead Auditor Dr. Steinweg)



The observations, findings and results are summarized within the following sections. The numbering is in accordance to the ICMC "Cyanide Production Verification Protocol, January 2011" which is released by the International Cyanide Management Institute (ICMI).

This report mainly consists of the results of evaluating a due diligence audit, performed by consignor CyPlus at the shipping company's (Hamburg Süd) site. This audit was done focussing the quality, environmental and safety system, the operations and activities during oversea shipments.

The CyPlus transportation operations (manufacturer in Germany and transporter along the supply chains to the mines) are subdivided in different supply chains (actually in total 6; 3 of them listed as certified at ICMI's webpage). Supply Chain #1 is certified since June 02, 2011. The respective Summary Audit Report is dated on April 10, 2011. It shows the 16 relevant players and organizations being involved in that chain. The intention is, to add the shipping company "Hamburg Süd" (Headquarter located in Hamburg, Germany) as a further service supplier into supply chain No. 1. The due diligence review of Hamburg Süd organization was conducted using information on file delivered by CyPlus (especially June 2012 due diligence audit report) and information available publicly.

Hamburg Süd (HS) is a German (HQ in Hamburg, Germany) shipping company performing –among other services- ocean crossing vessel shipping services. Basic key figures are (by end of 2011):

- Container vessels: 107 (own: 43, chartered, leased etc.: 64)
- Slot capacity: 395,000 TEU
- Container pool: 430,000 Units
- Employees: approx. 4,500 (approx. 700 at sea)
- Carryings: approx. 3,125,000 TEU
- Turnover approx. 6.6 bnUSD

By running an integrated safety, environmental and quality management system, the Hamburg Süd Group is documenting the fact that the company attaches great importance to the quality and environmental compatibility of its services, as well as to the safety of human life, ship and cargo. As early as 1996, the shipping group was one of the first leading international container shipping lines to be certified worldwide in line with the ISO 9001 quality standard. In the same year and on a voluntary basis, the International Safety Management (ISM) Code was introduced, before the existing quality and safety management system was augmented by the ISO 14001 environmental management system in 2000.

To meet safety requirements under the ISM Code, high-quality equipment on board the vessels guarantee a high degree of safety at sea. At the same time, regular training courses and an intensive training program contribute to safety aboard. In addition, risk analyses are regularly prepared to specifically counter potential hazards well ahead of time.

### **Auditor's recommendation:**

In reference to International Cyanide Management Code (ICMC) for Cyanide Transportation, the auditor recommends to ICMI:

According to ICMI's *Auditor Guidance for use of the Cyanide Transportation Verification Protocol* (01.2011), Chapter "General Guidance", subclause 9 (Consignor Supply Chain Audits and Due Diligence Investigations) the auditor evaluates that CyPlus's due diligence investigations have reasonably evaluated the "Hamburg Süd"<sup>1)</sup> facilities. CyPlus as the consignor of Supply Chain No.1 has implemented any necessary management measures, e.g. defined in June 14, 2012 due diligence report.

### Auditor's Finding

This operation is

- ☒ in full compliance
- ☐ in substantial compliance \*(see below)
- ☐ not in compliance

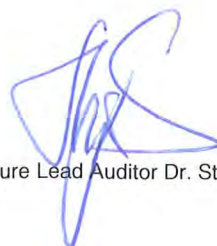
with the International Cyanide Management Code.

**\* For cyanide production operations seeking Code certification, the Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.**

Audit Company .....	LULU Intelligent Organization
Audit Team Leader .....	Dr. Benno Steinweg
Email .....	Benno.Steinweg@googlemail.com
Names / Signatures of other auditors ...	n/a
Date of due diligence verification .....	Jan 10, 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 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.



(Signature Lead Auditor Dr. Steinweg)



## PRINCIPLE 1 – OPERATIONS:

### 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.

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.1  
☐ not in compliance with

#### *Summarize the basis for this Finding:*

CyPlus is not active in transport operating activities on site. The activities are performed by the carriers described in Supply Chain No. 1 Summary Audit Report dated on April 10, 2011. HS as (potential future) part of the supply chain (overseas vessel shipping) does not define the routes dedicated to the cyanide containers of CyPlus, but they do serve clearly defined routes that are optimized with respect to safety, security and economic efficiency. According to International Safety Management (ISM) Code and the respective HS's Safety Management System (SMS) (re-verified by Germanischer Lloyd in 2012). HS does define and operate (ISM Code, clause 1.4):

- a safety and environmental protection policy;
- instructions and procedures to ensure safe operations of ships and protection of the environment in compliance with relevant international and flag State legislation;
- defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel;
- procedures for reporting accidents and non-conformities with the provisions of this Code;
- procedures to prepare for and respond to emergency situations; and
- procedures for internal audits and management reviews.

Running a system being compliant with those ISM Code requirements supports safeguarding the environment and preventing / reducing the potential for accidents and spills / releases, even when the single routes cannot be dedicated to the individual cyanide container transports (thousands of containers vs. a single or a handful of cyanide containers during one shipment).

During June 2012 due diligence audit, performed by consigner CyPlus at HS's Hamburg headquarter site, the conformity with those ISM requirements could be verified..

HS's procedures include an evaluation process of the selected route to determine if extra precautions are necessary at points along the route. Finally CyPlus as ICMC - Consignors is responsible for these evaluations for their supply chains, particularly when cyanide is transported by sea. During June 2012 due diligence audit the security, safety, training and emergency response aspects in general could be verified. As written in above cl. 1 a sufficient SMS is in place, taking also in account an appropriate risk management system. During the June 2012 due diligence audit the consigner CyPlus stated

"Hamburg Süd is obviously an excellent ocean carrier meeting all legal and even stricter additional requirements for the shipment of cyanide containers. Based on the documents reviewed and interviews performed during this due diligence inspection, it was found that Hamburg Süd has sufficient resources, equipment, IT systems, management systems, and – last but not least - well skilled and trained staff to safely handle dangerous cargo and to prevent and respond to incident involving them. In order to be better prepared in case of emergencies involving cyanides, Cyplus is recommended to take measures to provide respective training and emergency response information and to establish closer liaison with Hamburg Süd regarding emergency response communication and procedures in future"



**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.**

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.2  
☐ not in compliance with

*Summarize the basis for this Finding:*

During due diligence audit the consignor's auditors found at HS's headquarter site that definition and documentation of the responsibility, authority and interrelation of all personnel who manage, perform and verify work relating to and affecting safety and pollution prevention was done sufficiently. These persons do have clearly defined authority and responsibility based on job descriptions. Procedures are established and maintained for identifying any training which may be required in support of the SMS and ensure that such training is provided for all. The annual training program and evidences for its fulfilment have been provided. Managers and supervisors are trained by induction training, formal training (as relevant) and records show which managers and supervisors have received induction and formal training. Focussing on operator and employee training following subjects are covered as a minimum in training program: dangerous goods and company emergency procedures. Procedures are established and maintained to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing are planned, documented and given (evidences were supplied during due diligence audit). An individual person being responsible for hazardous goods, completed a training course on IMDG, given by an outside agency. Routine evaluation has been made of all activities to identify training needs, especially with respect to safety and security. A training matrix defining the target groups, topics and frequencies of the training program and the drill schedule 2012 (valid for the entire fleet) has been provided.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.3  
☐ not in compliance with

*Summarize the basis for this Finding:*

Hamburg Süd vessels (owned and chartered) are using on-board cranes as the only equipment for load handling and lifting. Those cranes are designed to operate FEU (Forty-foot Equivalent Unit) and Fortyfive-foot High Cube container. Those high volume containers allow a gross weight of max. 32.5 tons. Cyanide is typically transported in twenty-foot containers. The maximum weight of those primary packed cyanide transporting twenty-foot containers might reach 28.3 tons max.. Cyanide might be transported in CyPlus's innovative SLS containers. Those special containers are designed with outer dimensions as a twenty-foot container. The SLS containers can be loaded with 20 tons of material, thus reaching also a maximum of approx. 25 tons. So the gross weight of cyanide transportation units does not reach the maximum handling capability of the cranes. Additionally the stowage planning for each vessel loading is supported by a computerized system to prevent –among other objectives- overloading of the vessel. During the June 2012 due diligence audit the consigner CyPlus stated: "for stowage planning the sophisticated (...) Computer-Aided Planned Stowage and Networking System is in place. It has been reviewed with the planner of the day with the result, that it worked very well".



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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.4  
☐ not in compliance with

***Summarize the basis for this Finding:***

CyPlus Germany's packaging consists of plastic lined wooden boxes packed into 20 foot containers and sealed. The integrity of the boxes and containers can only be compromised if they are damaged during handling or moisture/water/liquids enter the containers or the boxes. The container is sealed by CyPlus in Germany and only opened at the mine, thus internal damage cannot be identified en route. Container Interchange Report is completed and jointly signed by the shippers representatives and the cyanide transporter's representatives to agree on any damage that may be sighted on the container at the port. The Vehicle Trip Checklist is completed at the mine, on delivery of the container and a section reports on container seals, labelling and general container condition. This checklist is counter signed by the mine representative. Transport regulations require marking and placarding according to CyPlus's Emergency Response Plan. This document also contains placarding requirements as per the IMDG Code requirements.

Thus Hamburg Süd responsibility is to check the external integrity of the cyanide containers. This is done by monitoring during loading / unloading and respective reporting in case of damage. During the June 2012 due diligence audit the consignor CyPlus found that Hamburg Süd is very familiar with the global and local requirements dealing with dangerous goods declaration and signage issues (e.g. IMO DG Code, IMO recommendations on the safe transport of dangerous cargoes and related activities in port areas, IMO Regulations for packing Cargo Transport Units). Evidence of the annual examination (by Germanischer Lloyd) according to the ISM Code has been provided. Certificates for Ship Safety Management (acc. ISM Code) and Maritime Security (acc. ISPS Code) are available online for each vessel under <http://www.hamburgsud-line.com/hsdg/en/hsdg/servicesproducts/ourvessels/vesselsoverview.jsp>. As an example for ISPS Code a confirmation of the German Federal Maritime and Hydrographic Agency for a ISPS-Code for the successful completion of a maritime security exercise has been provided. Evidence of the current valid certificates for AEO and C-TPAT are available. A written policy, which essentially prohibits the use and being under the influence of any drug or alcohol during working hours and discourages its use in general is available.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.5  
☐ not in compliance with

Most of the sub-requirements are to be fulfilled by the producer resp. transporting company CyPlus. Nevertheless some of the sub-requirements also have to be fulfilled by the vessel operator. During due diligence audit the consignor's auditors found at HS's headquarter site that documentation, primary and secondary packaging and signage according to all legal requirements along the supply chain is the producer's duty. Producing and transporting company is CyPlus. So it's the duty of CyPlus to follow these requirements. Nevertheless, the competence for evaluating correct signage according to DG Code is available at the Hamburg Süd safety organization: a specialist of the HazMat-Supervision dept., superseded by the Logistics & Marine Operations dept..

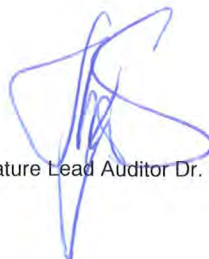
Hamburg Süd is routinely having manifests showing the total load for each vessel. During the June 2012 due diligence audit a cargo manifest (incl. dangerous goods data) was provided. Four random examples for containers loaded with CyPlus Sodium cyanide have been provided. The current valid HS's Contingency Manual has been provided and reviewed and found excellent. Some room for improvement has been detected during June 2012 due diligence audit and improvement actions are supported by CyPlus, as communicated to the ICMC auditor at Jan 10<sup>th</sup>, 2013.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 1.6  
☐ not in compliance with

*Summarize the basis for this Finding:*

Vessels are equipped with modern communication systems to get and stay in contact to defined communication partners all over the world. Contact information and the respective technique is available to get / stay in contact with the defined Designated Person Ashore (DPA). According to ISM Code HS has to ensure the safe operation of each ship and to provide a link between HS ashore and those on board. A dedicated person is having direct access to the highest level of management. Contact information to CyPlus as the cyanide producer and transportation company is available at the HQ site and on board when CyPlus cyanide is shipped. Testing the communication systems is part of the vessel individual maintenance schedule. By using –among others- GPS and satellite telephone no blackout areas should occur en route. HS is running a system to individually track and trace each container on the different vessels. This system is offered to the customers also as an internet based service to check the actual location of each container, based on container, booking or B/L (Bill of Lading) information. During the June 2012 due diligence audit it could be verified that containers shipped with Hamburg Süd can be virtually tracked online under a public available URL internet address. The vessels of Hamburg Süd can also be live tracked online under public available URL addresses.



(Signature Lead Auditor Dr. Steinweg)



## PRINCIPLE 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.**

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 2.1  
☐ not in compliance with

*Summarize the basis for this Finding:*

During CyPlus's supply chain No. 1 the shipping company Hamburg Süd is shipping material / goods by vessel from port to port. So this is a direct shipment, completed with no stops or interim storage, not for waiting issues nor for intermodal / changing purposes. Thus Principle 2 and Transport Practice 2.1 is not valid for Hamburg Süd as a shipping company for the intended nature of activity in CyPlus's supply chain No. 1

## PRINCIPLE 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.**

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 3.1  
☐ not in compliance with

*Summarize the basis for this Finding:*

CyPlus is not active in transport operating activities on site. This activity is subcontracted, as described in Transport Practice 1.1 sub-clause 8, to different service suppliers in supply chain No. 1. Hamburg Süd (HS) as a shipping company is one part of that chain. During the June 2012 due diligence audit the current valid Contingency Manual (= HS's Emergency Preparedness and Response Plan) has been provided and reviewed and found as excellent. Also according to certified ISM Code based Safety Management System (SMS) it's required to establish procedures to identify, describe and respond to potential emergency shipboard situations. In addition HS should establish programs for drills and exercises to prepare for emergency actions. Also the SMS must provide for measures ensuring that HS's on-board and ashore organization can respond at any time to hazards, accidents and emergency situations involving its ships. These requirements are fulfilled with the

Contingency Manual (= HS's Emergency Preparedness and Response Plan). The Contingency Manual is appropriate for the selected transportation route.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 3.2  
☐ not in compliance with

*Summarize the basis for this Finding:*

During due diligence audit the consignor's auditors found at HS's headquarter site that definition and documentation of ER planning and routinely training of the plan was done sufficiently. These persons do have clearly defined authority and responsibility based on job descriptions. Procedures are established and maintained for identifying any training which may be required in support of the SMS and ensure that such training is provided for all. The annual training program and evidences for its fulfilment have been provided. Managers and supervisors are trained by induction training, formal training and records show which managers and supervisors have received induction and formal training. Focussing on operator and employee training following subjects are covered as a minimum in training program: dangerous goods and company emergency procedures. An individual person being responsible for hazardous goods, completed a training course on IMDG, given by an outside agency. The individual is the head of the HazMat-Supervision dept. Routine evaluation has been made of all activities to identify training needs, especially with respect to safety and security. A training matrix defining the target groups, topics and frequencies of the training program and the drill Schedule 2012 (valid for the entire fleet) is available.

There is a list of all emergency response equipment, that has to be available during overseas transport, defined in HS's Contingency Manual (= HS's Emergency Preparedness and Response Plan). During the June 2012 due diligence audit inspection, it was agreed between Cyplus and HS to provide training how to handle emergencies involving cyanides. Furthermore it was agreed between Cyplus and HS to complete the already existing stock of emergency response and health and safety equipment for each cyanide transporting vessel according to above mentioned list.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 3.3  
☐ not in compliance with

*Summarize the basis for this Finding:*

The CyPlus' ERPT Plan includes a communication process description, that can be summarized as follows: the actual shipping company (here: HS) having the cyanide on board must first inform the individual responsible for hazardous goods and also the Designated Person Ashore. Then the next informed party is CyPlus as the transporting company, being the lead of the following CyPlus's Emergency Response Process. The emergency notification and reporting procedures are also included within the Emergency Response Plan. During the June 2012 due diligence audit CyPlus committed to provide their ERP-number to Hamburg Süd for inclusion in their Contingency Manual. The respective documentation is under control of CyPlus' quality / environmental system acc. to ISO 9001 and ISO 14001. Under this regulation the control of the above mentioned docs is executed and



thus it is safeguarded that each involved party always holds the actual version of the documentation. On HS's site the quality and SMS system acc. to ISM Code, ISO 9001 and 14001 takes care for continuous maintaining these processes. This process was verified by a resp. documentation check during the June 2012 due diligence audit.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 3.4  
☐ not in compliance with

*Summarize the basis for this Finding:*

Clean-up materials are in place to handle chemical releases. Exercises are performed routinely, e.g. simulation of spills and the respective reaction on that. During the June 2012 due diligence audit it was found that those procedures should be more aligned to cyanide issues. CyPlus is to provide training how to handle emergencies involving cyanides. According to the nature of handling and transportation on the vessel a release of cyanide into surface water is assessed not to occur. Thus no procedure / definition of prohibition of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water is intended.

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

This operation is ☒ in full compliance with  
☐ in substantial compliance with Transport Practice 3.5  
☐ not in compliance with

*Summarize the basis for this Finding:*

A routine for verifying the SMS and respective emergency measures / trainings has to be performed. The execution of this routine verification as well as suitable trainings and mock drills followed by lessons learned and continuous improvement of the Plan is checked during internal audits. This could be verified during the June 2012 due diligence audit. The revision system of the Contingency Manual is defined in the plan itself. It's required to do revision event-driven, e.g. releases with negative repercussions. Revisions or recommendations are to be implemented as appropriate. It is also planned to have a routine management review resp. a performance evaluation of the plan itself. This is according to ISM Code as well as acc. to ISO 14001 ch. 4.4.7.