

**ICMI CYANIDE CODE
SUMMARY AUDIT REPORT
CERTIFICATION AUDIT**

**CYANIDE TRANSPORTATION
SUPPLY CHAIN #5 - TURKEY SUPPLY CHAIN**

CYPLUS GMBH
DEUTSCHE TELEKOM – ALLEE 9
64295 DARMSTADT
GERMANY

Submitted to:
International Cyanide Management Institute
1400 I Street, NW, Suite 550
Washington, DC 20005
USA

AUTHOR:
LULU INTELLIGENT ORGANIZATION
CONSULTING • TRAINING • AUDITS • CERTIFICATION • VERIFICATION
DR.-ING. BENNO STEINWEG
REGISTERED LEAD AUDITOR
ISO 9001, ISO 14001, ISO 50001, ICMC
HASLACH 4
WEITNAU 87480 - GERMANY

Name of Cyanide Transportation Facility: CyPlus GmbH (Röhm Group)
Name of Facility Owner: CyPlus GmbH (Röhm Group)
Name of Facility Operator: CyPlus GmbH (Röhm Group)
Name of Responsible Manager: Stefan Welbers, Managing Director
Address: Deutsche Telekom – Allee 9, 64295 Darmstadt
State/Province: Germany
Telephone: +49-6151 863-0
E-Mail: stefan.welbers@cyplus.com

Additional contact person:

Florian Steinmann | Business Process & ICMC Manager
Phone: +49 6151 863-7396, Florian.Steinmann@cyplus.com
CyPlus GmbH, Deutsche Telekom – Allee 9, 64295 Darmstadt, Germany, www.cyplus.com

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 mines all over the world by using SLS¹ containers or containers with wooden boxes. The CyPlus company also acts as a consigner for cyanide transportations. This report is focusing on the Supply Chain #5: transportation of cyanide in containers, primary packaging mode are wooden boxes with liners, starting in Hamburg, Germany to mine site in Turkey.

Location detail and Description of operation:

The German company CyPlus GmbH is part of the Röhm 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 mines can be found on different sites across the world. Accordingly, different supply chains are utilized. In this report, the supply chain no. 5 is covered, starting from port of Hamburg (Germany) across the Antwerp (Belgium) and Izmir (Turkey) ports to the final destination in Turkey (mine site in Kışladağ, Uşak, Turkey). The supply chain consists of different transportation modes, i.e. truck, ports and overseas vessel transportation. Remark: the starting point (port of Hamburg, Germany) is not part of supply chain no. 5, but part of CyPlus's supply chain no. 1. Summary:

- Oversea vessel transport starting at port of Hamburg (MSC - Mediterranean Shipping Company)
- Arrival at MPET - Port of Antwerp; receiving the vessels, port operations;
- Oversea vessel transport from port of Antwerp to port of Izmir (MSC - Mediterranean Shipping Company);
- Limar Port and Ship Operators as part of Port of Izmir (TCDD) doing port operations, e.g. receiving the vessels, up-/unloading containers, stacking, transportation within port area etc.;
- Truck transporter To-Pet A.Ş. operating the truck transport of cyanide containers between port of Izmir and the mine site, located in Uşak Province, Turkey (approx. 210 km) and finally
- Hydra/Meke (Emergency Response Service company, supporting truck transporter To-Pet A.Ş.)

¹ also called Isotainer or Iso Tank

Involved truck transportation company in supply chain #5

Party No.	Name, Address	Function within supply chain #5
1	To-Pet Petrol Ürünleri Dağ. ve Paz. San. Tic. A.Ş. Turkey	Road transportation of the cyanide container from Izmir port to mine site ICMC-certified transportation company since Nov 13, 2019

■ Auditor's Finding

This operation is

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

with the International Cyanide Management Code.

This operation has maintained full compliance with the International Cyanide Management Code throughout the previous three-year audit cycle.

* 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@hs-kempten.com
Names / Signatures of other auditors ...	n/a
Date of audit	September 24, 2021

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 Production Operations and using standard and accepted practices for health, safety and environmental audits.

PRINCIPLE 1 – TRANSPORT

Transport cyanide in a manner that minimizes the potential for accidents and releases

Transport Practice 1.1: Select cyanide transport routes to minimize the potential for accidents and releases.

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 as the transport company has contracted the transport operation activities to the German Alfred Talke GmbH and to VTG Tanktainer GmbH companies. On the other hand, under authorization of CyPlus the local transportation activities are subcontracted to their local partner company To-Pet A.Ş. which is an ICMC-certified transportation company since Nov 13, 2019. Additionally the ERP consultant Hydra is also subcontracted (here: by To-Pet A.Ş.) to support with emergency assessment, planning and assistance services along the Turkish portion of the supply chain. All of the parties are required to fulfill CyPlus' quality and HSE requirements, controlled by service level agreements. This contracting scheme is clearly defined in CyPlus' ERP. Within this ERP a process to select transport routes to reduce potential risks with respect to accidents and releases is included. This process takes into account the population density along the potential route, infrastructure installations (e.g. bridges, road foundations etc.), rivers, creeks, ponds, in general proximity to water. The total transportation route starting from port of Hamburg, Germany (the port is not part of SC#5, but part of the upstream SC#01) and ending at the Turkish mine site is clearly defined. Potential scenarios must be taken in consideration; advice is given on how to react with respect to detected risks. The "Selection of Routes" process is clearly defined and carried out. During the road risk assessment and selection process input from communities, police, public agencies and further interested parties is required to have the full set of information for performing a risk assessment. The route selection and evaluation process is performed by using CyPlus's MS Excel based form, which requires the definition and implementation of measures to address risks at each and every portion of the selected route. Routinely, after each and every transport, a standard feedback form is completed to inform about issues, changes etc. of the current route. Annually –or following a planned change- during a management review process a periodic reevaluation is performed; respective results are discussed and shared with CyPlus. This is also to cooperate with the authorities. CyPlus' ERP deals in detail with the involvement of external interested parties (mutual aid scheme). One of several ERP outcomes is the escorting process, where Hydra² escorts the truck convoy, consisting of one or more containers. Hydra escorts the convoy by using a fully equipped emergency truck. Further regulations are defined focusing on communication during routine operation and during emergency cases (alerting). Although To-Pet A.Ş. holds an own ICMC certification the route selection process is arranged very closely between CyPlus and To-Pet A.Ş.

² External Emergency Response Consultant

■ **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:

CyPlus is not active in transport operating activities on site. This activity is subcontracted, as described in Transport Practice 1.1, to different parties, e.g. the road truck transporter in Turkey: To-Pet A.Ş.. The involved transport / handling companies use only trained, qualified and licensed drivers / operators to operate the respective equipment. This is basically required in CyPlus' ERP and in the service level agreement between the involved parties. The qualification requirements are focused on both, routine activities during normal operation and actions / behavior during emergency cases / situations. Special training is planned, scheduled and executed.

Operating personnel does not have to do handling activities with cyanide, but only transport activities and handling activities with originally closed containers. The trainings do focus on scenarios and potential incidents and accidents. Exercises are performed routinely, e.g. simulation of spills and the respective reaction on that. Basic trainings are required according to training matrix (knowledge about procedures, forms, processes etc.). These basics are replenished by further trainings with respect to spill handling, emergency reaction etc. The documentation shows the training history and the respective effectiveness checks of the trainings. This is completed e.g. by specific Turkish re-qualification documentation for truck drivers which is mandatory.

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:

CyPlus as an organization does not transport loads on site at the Izmir to Kışladağ, Uşak region. Local transports at that region are organized and carried out by CyPlus's partner To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019.

To-Pet A.Ş. uses trucks for the cyanide transportation on transport route No. 5. No ferry, barge or other means of transportation are in use. When using a TEU (20 foot equivalent unit) the maximum load is defined. No unloading / re-loading etc. activities are done by To-Pet A.Ş.. So the container – once loaded by CyPlus in Germany – will not be opened and thus the load amount will not be changed. The use of heavy load trucks safeguards, that no overload will occur.

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:

The containers are sealed by CyPlus in Germany and only opened at the mine, thus internal damage cannot be identified in route #5. Turkish transport regulations with respect to marking and placarding is followed.

Personnel qualification, competence and enabling within the truck transport portion of CyPlus's SC#5 is completely done by To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019. Included in their respective certification is Meke-Hydra, a local emergency response service supplier, who is escorting each and every transport from Izmir port to the mine site. Meke-Hydra is also engaged and contracted in other CyPlus cyanide supply chains and is very familiar with CyPlus's requirements.

With all the other contractors within SC#5 similar agreements cannot or may only hard to be reached (e.g. Port of Izmir, Port of Antwerp, vessel operator). On the other hand all these organizations are due diligence audited, so that CyPlus is able to verify that the spirit of the ICMC Code is met. This can be confirmed in each and every case.

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

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

Summarize the basis for this Finding:

The shipments of cyanide by sea are transported in compliance with the IMDG Code. According to the due diligence investigations the contracted ocean carrier (MSC – Mediterranean Shipping Company) could demonstrate that the current valid amendment of the IMDG Code is available (printed and online) and in use and that all employees concerned are made aware by delta trainings about new and/or changed legal requirements in comparison to the previous edition. Further the ocean carrier could prove, that all vessels are certified according to the ISM- and the ISPS Code.

Current Due diligence investigations were performed by CyPlus on-site at the ocean carrier's port site. Finally it can be concluded, that MSC is able to transport cyanide and other DG in a safely manner.

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:

The communication along the full supply chain – focusing the location of the material- is established by each contributor of the supply chain. This information is often –where necessary- made available by using internet based applications. The containers are sealed by CyPlus in Germany and only opened at the mine, thus internal damage cannot be identified in route #5.

Tracking the containers during the truck transport portion of CyPlus's SC#5 is completely done by To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019. Included in their respective certification is Meke-Hydra, a local emergency response service supplier, who is escorting each and every transport from Izmir port to the mine site. Meke-Hydra is also engaged and contracted in other CyPlus cyanide supply chains and is very familiar with CyPlus's requirements.

With all the other contractors within SC#5 similar agreements cannot or may only hard to be reached (e.g. Port of Izmir, Port of Antwerp, vessel operator). On the other hand all these organizations are due diligence audited, so that CyPlus is able to verify that the spirit of the ICMC Code is met. This can be confirmed in each and every case. Under authorization of CyPlus's management system the local activities of the partner transportation company To-Pet A.Ş. is subcontracted. Additionally the ERP consultant Hydra is subcontracted by To-Pet to support with emergency assessment, planning and assistance services, as well as trainings. All of the parties are obliged by written agreement to follow CyPlus's quality and HSE requirements (incl. CyPlus's ERP), controlled by service level agreements.

All port and overseas organizations are due diligence audited, so that CyPlus is able to verify that the spirit of the ICMC Code is met, e.g. having means to communicate with the relevant stakeholders along the supply chain incl. consigner, checking functionality of communication equipment, knowing the regions of communication with blackout areas, tacking and tracing the by internet-based systems and in general preventing the loss of material. This can be confirmed in each and every case

PRINCIPLE 2 – INTERIM STORAGE

Design, construct and operate cyanide 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:

In advance of the ICMC Transportation audit CyPlus organized a series of due diligence audits, referring to all supply chain no. 5 partners. The result of the due diligence audits was laid down in respective reports. The reports were made available for the ICMC Transportation Auditor before the on-site audit at CyPlus GmbH headquarter was performed. The reports show, that the due diligence audits were performed fully (with respect to the relevant ICMC requirements). CyPlus' due diligence auditors in charge are clearly qualified.

It was recognized that -also at the port sites- **no need for interim storage facilities and warehousing** in terms of Cyanide Code definitions do occur.

National and international labeling provisions are maintained. Smoking, open flames, eating and drinking at the ports is regulated by the quality / safety management system of the port site. Derived from that system, dedicated areas are defined where those special activities are allowed and also special areas, where those are restricted. Requirements covering personal protective equipment is clearly defined and regulated in both port's advising systems.

At both ports (Antwerp, Izmir) following principles are established: the areas are protected by a fence and additionally supported by a technical and organizational based access control system. Access to the site is controlled at different control points / entry points. Only authorized persons / equipment are allowed to entry. Gate guard service is part of the port organization. Sufficient security and access measures are in place. Respective skills are established especially by having and operating an own, high professional 24/7 fire brigade, being able to handle with chemicals and DG incl. respective spill handling and remediation processes

Sufficient volume to handle spillage is available. The requirement to fulfill preventive spill handling for all the other potentially handled goods leads to sufficient volume of back-up capacity to contain any spilled materials and minimize the extent of a release.

Finally it can be concluded, that the Port of Antwerp as well as the Port of Izmir is able to manage cyanide and other DG in a safely manner.

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 organization along the full supply chain No. 5 is contracted to the companies Alfred Talke GmbH and VTG Tanktainer GmbH, which are special expertise companies in dangerous goods handling, packaging, storage and transportation, active especially in and all over Europe. Together with both main contract partners the planning for emergency responding with all partners along the supply chain no. 5 is defined, checked during due diligence audits (all of the partners do have safety systems in place to perform a highly qualified emergency response system). The local Turkish transport company To-Pet A.Ş. –in conjunction with Hydra company (ER service provider)- implemented an Emergency Response Plan. The truck transport portion of CyPlus's SC#5 is completely done by To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019. Included in their respective certification is Meke-Hydra, a local emergency response service supplier, who is escorting each and every transport from Izmir port to the mine site. Meke-Hydra is also engaged and contracted in other CyPlus cyanide supply chains and is very familiar with CyPlus's requirements.

CyPlus's ERP considers all aspects of the transport infrastructure. Special attention is given to the road assessments, where the specific conditions of the routes and the respective installations are focused (e.g. bridges over water etc.). The plan considers the design of the transport vehicle. Container trailers are specified with minimum load requirements and special adaption points to fix the different container bottom designs.

The ERP includes descriptions of response actions, as appropriate for the anticipated emergency situation. Trainings are done, covering the given scenarios. The plan also shows the respective emergency procedure, phone numbers and persons / functions to be involved in case of emergency / spill etc. as well as addresses of different functions (police, hospital, mayors of different communities along the route etc.).

The plan identifies the roles of outside responders, medical facilities and communities in emergency response processes / cases. The alerting system in case of emergency is described, defined and routinely checked and trained, respectively.

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:

All involved parties provide emergency response training for the appropriate personnel. The training matrices require different kinds of trainings. Driver's training requirements on how to act and react as well as information on the product cyanide etc. is available. Those trainings are held by different parties. The scheduling is following training concepts, which are based also on CyPlus' requirements.

Descriptions of the supply chain no. 5 specific emergency response duties and responsibilities of personnel are defined in detail in Hydra's documentation. This documentation is under control of Hydra's quality and HSE system and checked by CyPlus. Under this regulation the control of the above mentioned docs is executed and thus it is safeguarded that each involved party always holds the current version of the documentation.

There is a list of all emergency response equipment that has to be available during road transport and along the transportation route. Hydra, the emergency response service company (contracted by CyPlus) is made responsible to have the right and full list and to take care, that the defined equipment and materials are available in full and in full function. The emergency response kit includes all items, as required by the Code and the referenced regulation as well as Turkish legal requirements.

The truck transport portion of CyPlus's SC#5 is completely done by To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019. Included in their respective certification is Meke-Hydra, a local emergency response service supplier, who is escorting each and every transport from Izmir port to the mine site. Meke-Hydra is also engaged and contracted in other CyPlus cyanide supply chains and is very familiar with CyPlus's requirements.

With all the other contractors within SC#5 similar agreements cannot or may only hard to be reached (e.g. Port of Izmir, Port of Antwerp, vessel operator). On the other hand all these organizations are due diligence audited, so that CyPlus is able to verify that the spirit of the ICMC Code is met. This can be confirmed in each and every case. Under authorization of CyPlus's management system the local activities of the partner transportation company To-Pet A.Ş. is subcontracted. Additionally the ERP consultant Hydra is subcontracted by To-Pet to support with emergency assessment, planning and assistance services, as well as personnel trainings. All of the parties are obliged by written agreement to follow CyPlus's quality and HSE requirements (incl. CyPlus's ERP), controlled by service level agreements.

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:

Hydra's ERP as well as CyPlus's safety management system include a communication process description that safeguards the full information of all interested and acting parties in case of emergency. This includes –among other aspects- listings of the members of the internal response team members (including the manufacturer CyPlus, Hydra, mine site and the trucking company To-Pet), and those of external emergency responders (police, firefighters, hospitals, authorities, etc.) along the supply chain. The emergency notification and reporting procedures, especially communication towards ICMI, are also included within CyPlus's Emergency Response Plan and also in the derived ERPs from the partners along the supply chain.

The respective documentation is under control of Hydra's quality and HSE system. Under this regulation the control of the above mentioned docs is executed and thus it is safeguarded that each involved party always holds the current version of the documentation. This is checked routinely by / during internal audits.

With all the other contractors within SC#5 similar agreements cannot or may only hard to be reached (e.g. Port of Izmir, Port of Antwerp, vessel operator). On the other hand all these organizations are due diligence audited, so that CyPlus is able to verify that the spirit of the ICMC Code is met, e.g. operating procedures for emergency notification and reporting. This can be confirmed in each and every case.

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:

Descriptions of the specific emergency response duties and responsibilities of personnel are defined in detail. The measurements and actions by and during spill are defined and advised in detail. The methods to be used to decontaminate the environment/spillage are described, e.g. prevention of spill entry into waterways, sewers, basements, or confined areas.

It is also established that chemicals should not be added to water bodies to control the pH or to neutralize cyanide. Additionally, it includes instructions for assessing the impact on surface water bodies and to prevent the population to be poisoned by contaminated water. These instructions are part of the emergency response instructions to cyanide spills with contact to water and water bodies.

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:

All truck transportation activities within the truck transport portion of CyPlus's SC#5 is completely done by To-Pet A.Ş., which is an ICMC-certified transportation company since Nov 13, 2019. Included in their respective certification is Meke-Hydra, a local emergency response service supplier, who is escorting each and every transport from Izmir port to the mine site. Meke-Hydra is also engaged and contracted in other CyPlus cyanide supply chains and is very familiar with CyPlus's requirements. Thus they do have their own system. Although To-Pet A.Ş. holds an own ICMC certification the emergency response processes are arranged very closely between CyPlus and To-Pet A.Ş..

The necessary provisions for periodically (min. once per year or driven by events) reviewing and evaluating CyPlus's ERP are clearly defined and advised. In conjunction with a potential adjustment or change all other corresponding response procedures and requirements must be adapted (e.g. To-Pet A.Ş. / Hydra's ERP instructions within their quality and HSE system). Examples of change requests coming from events were inspected. In case of any event –if necessary or relevant- an update in the ER-plans of the different parties would be triggered. It is also scheduled to have a routine management review and a performance evaluation of the plan itself, respectively.

Provisions for periodically conducting emergency mock-drills are made. The respective drills are defined by CyPlus. The training concept intends to involve all relevant parties, especially the mine site, that organizes and performs trainings by it's own with a high grade of quality and practical orientation. It is intended and scheduled to have mock drills minimum once per year, also in close cooperation with the respective mine site.