# **International Cyanide Management Code Re-Certification Audit of:**

## **CyPlus Sodium Cyanide Transloading Terminal and Warehouse Operations**

## **Summary Audit Report**

## **Submitted to:**

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

2015 Audit Cycle





## **Table of Contents**

CyPlus Obregon Transloading Terminal and Warehouse Summary	. 2
Company Summary	. 2
Company Names & Contact Information	. 2
Operational Overview	. 2
Auditor's Finding	
CyPlus Supply Chain Certification Audit Results	
1. OPERATIONS: Design, construct and operate cyanide production facilities to prevent	
release of cyanide	. 5
2. WORKER SAFETY: Protect workers' health and safety from exposure to cyanide	
3. MONITORING: Ensure that process controls are protective of the environment	
4. TRAINING: Train workers and emergency response personnel to manage cyanide in a sa	fe
and environmentally protective manner.	12
5. EMERGENCY RESPONSE: Protect communities and the environment through the	
development of emergency response strategies and capabilities	14



# CyPlus Obregon Transloading Terminal and Warehouse Summary

## Company Summary

## **Company Names & Contact Information**

Name and location of Operation:	Las Torres 814 Parque Industrial Ciudad Obregón, State of Sonora, Mexico
Responsible Manager for Operation:	Frank Harenburg Managing Director - CyPlus
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## **Operational Overview**

CyPlus GmbH, subsidiary of Evonik, is a consigner for sodium cyanide supply in solid state (briquettes) in Mexico. CyPlus operates under the commercial name of Evonik Industries de Mexico, S.A. de C.V. Evonik supplies several mines in Mexico. The Transloading Terminal and Warehouse in Obregon is the subject of this audit report and is part of the overall CyPlus Mexico ICMC certified supply chain.

Cyanide is transported to Mexico by ship and is delivered using CyPlus' ICMC certified Supply Chain from the Mazatlan and Guaymas Ports to the Obregon transloading terminal and warehouse facility. The facility is located in an industrial park and used to store cyanide and an unrelated non-hazardous product.

Cyanide is packaged by the manufacturer (CyPlus Germany) in 1 ton wooden boxes with a polypropylene super-sacks filled up to 1 ton. Cyanide is delivered to mines in either the 1 ton boxes or

CyPlus - Obregon Terminal & Warehouse

G: CI A T

October 15, 2015

Name of Operation

Signature of Lead Auditor Page 2 of 17



in ISO tank trailers. In the case of ISO tank trailers, the wooden box packaging is opened and transloaded into ISO tank trailers at the facility and are then transported to mine sites using CyPlus' ICMC certified supply chain  $N^{\circ}$  4 -Mexico. All transloading activities are contained within the facility. State-of-the-art systems are used to appropriately manage dust generation and protect against water and air emissions from the operation.

## **Audit Implementation and Conclusions**

Solid sodium cyanide storage and transloading practices were evaluated during this audit. The audit was conducted through discussions and interviews with Senior Management, Operations Management, Operators, and Office Staff. The audit team used the ICMI "Cyanide Production Verification Protocol" to evaluate International Cyanide Management Code (ICMC) compliance. Adherence to locally-defined procedures was evaluated through the review of records and the interviewing of personnel with regard to relevant cyanide-related processes and activities.

The assessment was based on random samples of information and therefore deficiencies may exist which have not been identified. The depth to which records and data were sampled was typical of an environmental, health and safety (EH&S) management system audit. Although legally required records were sampled in order to evaluate ICMC compliance, legal compliance with Federal and State regulations was not part of the scope of this evaluation.

The CyPlus re-certification audit was performed by independent third-party auditors who are preapproved by the ICMI as Lead Auditor for all types of International Cyanide Management Code (ICMC) audits and as technical experts for ICMC audits of cyanide transportation and production operations.

The operation has not experienced any cyanide spills or releases since its original certification audit in 2013.

All cyanide operations noted above were included in this ICMC Re-Certification Audit. All operations noted in this report were found to be in FULL COMPLIANCE with ICMC requirements.

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015

Page 3 of 17

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## **Auditor's Finding**

Cyanide management practices for the CyPlus transloading terminal and warehouse operations were evaluated for ICMC compliance using the *ICMI Cyanide Production Verification Protocol*. CyPlus internal Standards, Policies, Practices, and Procedures regarding the management of the cyanide operations were reviewed.

The audit team found that the overall level of preparedness and understanding of ICMI Cyanide Code requirements was excellent. Management systems were found to be very mature, personnel demonstrated excellent operational discipline, the facility was very well maintained and organized, and records were readily available for review.

The operation has not experienced any cyanide spills or releases since its original certification audit in 2013.

The results of this re-certification audit demonstrate that the CyPlus Obregon transloading and warehouse and all cyanide-related operations are in FULL COMPLIANCE with International Cyanide Management Code requirements.

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Date(s) of Audit:	August 13-14, 2015		

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Certification 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 the Audit Reports accurately describe the findings of the certification audit. I further attest that the certification 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.

CyPlus – Obregon Terminal & Ward	ehouse Ninde Luy Z	October 15, 2015
Name of Operation	Signature of Lead Auditor	Date

CyPlus - Obregon Terminal & Warehouse Violation October 15, 2015

Name of Operation Signature of Lead Auditor Date

Page 4 of 17



## **CyPlus Re-Certification Audit Results**

1. OPERATIONS: Design, construct and operate cyanide production facilities to prevent release of cyanide.

<u>Production Practice 1.1</u>: Design and construct cyanide production facilities consistent with

sound, accepted engineering practices and quality control/quality

assurance procedures.

The operation is **☐** in full compliance with Production Practice 1.1

Summarize the basis for this Finding:

CyPlus implemented quality control and quality assurance programs during the construction of the Obregon Warehouse storage facilities and transloading equipment. No significant changes to the operation, facility, or process have been made since the initial certification audit in July 2012, when this facility was originally found to be in full Cyanide Code compliance.

The warehouse is constructed with a concrete floor, block and sheet metal walls, and a sheet metal roof. The design of the warehouse and transloading operation was performed by certified engineers. Laboratory tests for concrete resistance demonstrated compliance to European and ISO construction standards and to norms deemed to be appropriate for the facility by professional engineers. CyPlus maintains all project records, blueprints, and quality testing records for the facility in a retrievable format. Confirmation was made during the audit that the materials used in the construction of the warehouse are appropriate for the designated use of the facility.

The transloading equipment has an interlock system to prevent overfilling of the ISO containers. The entire warehouse, including the transloading system are built on concrete. The floors were found to be in excellent condition with no visible cracking and with appropriate curbing to ensure that cyanide remains dry in areas where water is present. The water drainage system used to collect wash water from the transloading area has an overfilling control automatic shut-off system that prevents flooding of the work and storage area. There is no cyanide solution at this facility.

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor

October 15, 2015

Date

Page 5 of 17



<u>Production Practice 1.2</u>: Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

The operation is ☐ in full compliance with Production Practice 1.2

Summarize the basis for this Finding:

CyPlus has plans and procedures for the Obregon Warehouse storage facilities and transloading operation that describe the standard practices necessary for its safe and environmentally sound operation. Extensive operational and emergency response procedures are maintained by CyPlus specifically for this operation. Procedures that address normal operations, upset conditions, and emergency events are addressed in the Emergency Response Plan (ERP). All procedures reviewed were found to be comprehensive and appropriate for the operation.

CyPlus has procedures for contingencies during upsets in its activities. Maintenance procedures and operational procedures provide enough detail to address small process issues and the Emergency Response Plan (ERP) describes the procedures to be followed in the event of a fire, explosion, and exposure or cyanide release. Facility personnel were interviewed and demonstrated a high level of procedural awareness. CyPlus also has a formal Management of Change (MOC) procedure that calls for a risk analysis to be performed prior to making any changes to procedures or equipment. No significant changes have been made to the facility, operations, or procedures since the previous ICMC third-party audit.

CyPlus uses a formal preventive maintenance program including procedures, training, and checklists to maintain the warehouse and transloading equipment. Operators inspect and perform preventive maintenance to all the infrastructure and equipment at appropriate frequencies. Maintenance activities are recorded in an electronic log; records were available for review for 2013, 2014, and 2015 and were found to be acceptable.

HCN levels are monitored with portable HCN gas detectors at all times inside the cyanide storage warehouse and during the unloading and loading operations. The gas detectors are calibrated at manufacturer recommended frequencies. Maintenance and calibration records were available for review covering the audit re-certification period.

CyPlus has implemented procedures to prevent discharges to the environment of cyanide-contaminated water. The facility also has a procedure for the disposal of cyanide contaminated solids which details the decontamination and disposal procedures for all solids such as bags, boxes, Tyvek suits, etc. The material is stored in a covered area and is sent off with a certified hazardous waste service provider.

CyPlus receives solid cyanide in wooden boxes and packaged in a polypropylene bag with a polypropylene foil that protects the product from the air-environment moisture. CyPlus stores the cyanide with adequate ventilation to prevent the build-up of hydrogen cyanide gas. The warehouse is equipped with air ventilation units installed along the warehouse roof and has large roll-up doors available for increased air flow. Boxes are stored on a concrete floor that was found to be in excellent condition. The surfaces adjacent to the warehouse have storm water drainage and are graded away from the warehouse to prevent ponding of water near the walls. The cyanide was found to be suitably protected from potential contact with water.

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015

Name of Operation

Page 6 of 17



The facility is locked with restricted access and security guards are present at all-times. Access to unauthorized personnel is prohibited.

CyPlus maintains a procedure for the reception and storage of chemicals to ensure the product is packaged as required for the political jurisdictions through which it will be transported. A checklist is used by operators to make sure that any boxes sent to mines are appropriately labeled. All boxes in storage at the time of the audit had labels in Spanish.

<u>Production Practice 1.3</u>: Inspect cyanide production facilities to ensure their integrity and

prevent accidental releases.

The operation is **☑** in full compliance with Production Practice 1.3

Summarize the basis for this Finding:

CyPlus conducts routine inspections of the storage facilities and transloading equipment to check for problems or issues that need to be resolved. No cyanide solution is managed at this operation. The operators were very knowledgeable regarding the aspects of the operation that could present a threat and the notification procedures that are to be followed in the event of an abnormal operating condition.

Inspections are performed at an established frequency that was found to be sufficient for assuring that equipment is functioning within desired parameters. Records of inspections are maintained and were available for review during the audit. Daily inspections of the warehouse are performed and the transloading system is inspected on a weekly basis. Inspections include the warehouse, emergency response equipment and materials, monthly review of extinguishers, pre-operational inspections before cyanide handling, and inspections of the boxes and transportation equipment.

Inspections are performed using checklists which document the name of the inspector, the date of the inspection, and the results of the inspection. The forms are used to document deficiencies observed and the resolution to those deficiencies. Interviews demonstrated that employees have excellent awareness that corrective actions need to be documented. Records for the re-certification period were reviewed and were found to be acceptable.

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor Page 7 of 17 October 15, 2015



#### 2. WORKER SAFETY: Protect workers' health and safety from exposure to cyanide.

<u>Production Practice 2.1</u>: Develop and implement procedures to protect plant personnel from exposure to cyanide.

The operation is **☑** in full compliance with Production Practice 2.1

Summarize the basis for this Finding:

To minimize worker exposure under normal operations, the facility has developed and implemented cyanide related procedures for: receiving, storing, and dispatching cyanide boxes, inspecting and cleaning of the equipment, maintenance of the facility, management of solid waste and wastewater, the use of safety protective equipment, and transfer of sodium cyanide to ISO tanks.

Procedures exist for normal operations and abnormal operations such as: product transfer from damaged boxes, crisis management, control of non-conforming products, and cyanide exposure. The Emergency Response Plan (ERP) describes the procedures to follow in case of emergencies due to sodium cyanide spills and fire in the warehouse.

CyPlus has developed procedures for preventive maintenance which are supported by periodic inspections of the facility and equipment. The procedures address periodic maintenance of a number of different types of equipment including portable cyanide detectors, cyanide transloading equipment, forklifts, firefighting, and emergency response equipment.

CyPlus has implemented a Management of Change procedure to review proposed operational changes. Changes in documentation, installations and operational changes are intended to be processed using this procedure.

The facility involves operators in the development and roll-out of procedures and encourages operators to provide feedback on procedures and changes at the facility. During monthly internal training sessions workers have time to interact with their instructor, the operation H&S Manager, regarding improvement in work procedures, among other topics.

The facility uses portable monitoring devices when performing unloading and loading activities. Confirmation is made that safe working conditions exist and that cyanide levels are below 4.7 ppm. Operators demonstrated very good awareness of the HCN gas monitor control set points and indicated that they would leave the area if HCN monitors alerted them to unsafe work conditions.

HCN monitors are scheduled to be calibrated every 6 months according to manufacturer's specification. Maintenance and calibration is performed by a local service provider.

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015

Name of Operation

Page 8 of 17



The facility has evaluated the operation for elevated HCN exposure potential. The results of an air quality monitoring study dated July 2013 were available for review. No areas were identified as having elevated HCN or cyanide dust levels. CyPlus does, however, require that operators use personal protective equipment in the work areas at all times including HCN monitors, chemical suits, boots, gloves, and goggles.

Procedures require that at least two people work in the operation at all times. Operators reported that two people work at the facility together at all times. Additionally, the operation is monitored by video cameras to ensure that any urgent or emergency situations are quickly identified by office personnel and/or security guards and managed appropriately.

CyPlus assesses the health of employees to determine their fitness to perform their specified work tasks. Workers take a medical exam when they are hired and then annually thereafter. Records are maintained.

The facility has a clothing change policy which requires that employees change clothes upon leaving the operational area. Prior to leaving the warehouse area, operators remove any clothing that has potentially been in contact with cyanide. Rubber gloves and Tyvek suits are disposed of upon leaving the operational area; operators wash their work clothes in the changing area with dedicated equipment.

Appropriate cyanide signs and PPE signs are present in all operational areas. Warning signs and PPE requirement signs were observed in several locations. Signage was considered to be acceptable by the audit team.

Eating, drinking, smoking, and open flames are prohibited where there is a potential for cyanide contamination. Employees showed very good awareness of the restrictions and of the potential dangers of not adhering to those restrictions.

<u>Production Practice 2.2</u>: Develop and implement plans and procedures for rapid and effective response to cyanide exposure.

The operation is ☑ in full compliance with Production Practice 2.2

*Summarize the basis for this Finding:* 

CyPlus maintains a comprehensive Emergency Response Plan (ERP) and crisis management plan for rapid and effective response to cyanide exposure. The Procedure in Case of Cyanide Exposure covers the process that is to be followed in the event that cyanide is ingested, skin or eye contact made, and/or if cyanide dust or gas is inhaled.

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor

October 15, 2015

Page 9 of 17



Shower / low-pressure eye wash stations are available at several locations within the facility. Each station has an elevated water tank to ensure water pressure is appropriate at all times. The facility has several non-acid fire extinguishers located at strategic locations throughout the operation. Shower / low-pressure eye stations and fire extinguishers are inspected regularly. Records of these inspections were reviewed and were found to be acceptable during the audit.

The facility has water, a cyanide emergency kit, defibrillator (resuscitator), oxygen tanks and means of communication readily available.

CyPlus inspects and appropriately maintains emergency response equipment and the cyanide antidote to ensure availability during an emergency. The antidote is stored in a refrigerator that is temperature controlled and is maintained according to manufacturer recommendations. Emergency response equipment at the site was found to be comprehensive and is stored and tested according to manufacturer's recommendations.

Cyanide Safety Data Sheets and first aid procedures are available to workers in the operational area of the warehouse in local language. These documents are also published as posters in two locations of the warehouse.

The CyPlus Obregon facility does not have any cyanide solution operations. Wash water potentially contaminated with cyanide is disposed of into labeled storage tanks.

The facility decontamination procedure requires that all personnel dispose of their Tyvek suit and rubber gloves after working in areas with the potential for contact with cyanide. Employees demonstrated a good understanding of the decontamination procedure and the need for safety precautions.

CyPlus has its own on-site capability to provide first aid to workers who are potentially exposed to cyanide. The four employees working in the facility are trained in first aid and cardio pulmonary resuscitation (CPR). The facility maintains a medical response kit with instructions for use and several oxygen bottles.

The facility has developed instructions to transport exposed workers to locally qualified off-site medical facilities. The ERP addresses the transfer of exposed victims to a medical center. Trained medical emergency response personnel are readily available to transport an exposure victim to a qualified medical facility.

The site has an agreement with a local hospital in Obregon to provide medical attention to exposed workers that require attention beyond site capabilities. CyPlus has trained and provided the cyanide antidote to hospital staff and is confident that the medical facility has qualified personnel as well as the necessary equipment and expertise to respond to cyanide exposures.

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor

Page 10 of 17

October 15, 2015



Mock emergency drills are conducted periodically. CyPlus conducted two emergency response drills per year in the Obregon facility during the re-certification audit period. Spill and exposure scenarios tested were deemed to be appropriate for the operation. The results of the drills were reviewed and lessons learned were communicated among the employees following the drills.

CyPlus has implemented an incident investigation procedure for investigating, evaluating and reporting incidents, including cyanide exposure cases. Investigations and evaluations of incidents have not been required; the site had no incidents to report during the re-certification audit.

#### 3. MONITORING: Ensure that process controls are protective of the environment.

<u>Production Practice 3.1</u>: Conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

The operation is **☑** in full compliance with Production Practice 3.1

Summarize the basis for this Finding:

This facility does not work with cyanide solutions. All processes involve only solid sodium cyanide. Cyanide briquettes are stored and delivered to customers in either 1-ton boxes or ISO tanks following a transload operation.

The facility does not discharge directly or indirectly to surface water; no surface water is near facility. There are no known emissions of hydrogen cyanide gas from this site. There is no cyanide processing at this site. The facility is only used to store and distribute solid cyanide.

Indoor air cyanide concentrations are monitored using portable detectors. An accredited laboratory is also contracted on an annual basis to determine cyanide concentrations as required by Mexican local regulations. According to the records reviewed during the audit, there were no reports of these limits ever having been exceeded. No activities take place outside of the building. The audit team concluded that, during normal facility operations, that there is no risk of cyanide dust being emitted into the outside air.

No spills to ground or emissions to air have occurred at the site.

The 3.1 ICMC protocol sections were found to be "Not Applicable" to this facility.



#### 4. TRAINING: Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Train employees to operate the plant in a manner that minimizes the *Production Practice 4.1:* 

potential for cyanide exposures and releases.

The operation is **☑** in full compliance with Production Practice 4.1

Summarize the basis for this Finding:

CyPlus trains all his workers to understand the hazards of cyanide through an annual training and refresher program. The facility has access to Evonik's intranet online learning modules. The training is in Spanish and includes information on a full range of training topics related to cyanide. This material is used for the cyanide safety training along with face to face training sessions given annually by the Evonik Health & Safety Coordinator for Mexico.

Site personnel receive training regarding the use, storage and cleaning of the personal protective equipment (PPE) required by each activity or task. Auditors found all personnel were trained on the use of PPE during the recertification period.

CyPlus trains its workers to perform their normal production tasks with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases. Internal training in the operational procedures was delivered to all relevant personnel during the re-certification period. The training is provided by the site's Operations Supervisor and by the Evonik Health & Safety Coordinator.

The training elements necessary for each job are identified in the training materials. The facility uses the work procedures as their training materials.

Training is provided by appropriately qualified personnel such as the facility Operations Supervisor (an experienced chemical engineer) and also by the Evonik Health & Safety Coordinator. The audit team confirmed through interviews and a review of credentials that both individuals are highly qualified and capable of providing safety and operations training.

CyPlus trains all personnel on cyanide awareness prior to their beginning work in the operation. Personnel are also trained on job procedures before working with cyanide. Records were reviewed for the re-certification period and were found to be complete.

The facility evaluates the effectiveness of cyanide training by testing and performance evaluations done after the initial training sessions. Evaluation records are kept by the site.

CyPlus - Obregon Terminal & Warehouse

October 15, 2015

Name of Operation

Signature of Lead Auditor Page 12 of 17



<u>Production Practice 4.2</u>: Train employees to respond to cyanide exposures and releases.

The operation is **☐** in full compliance with Production Practice 4.2

Summarize the basis for this Finding:

CyPlus trains all personnel on the emergency response procedures. Workers have also been trained by qualified personnel from the Chemical Industry National Association (ANIQ). This is part of the regular safety training that is specific for the warehouse. Interviews with personnel showed acceptable awareness of procedures.

Workers are trained to respond to potential cyanide exposures. Routine drills are used to test their response skills. The CyPlus Emergency Response Brigade has been trained to provide assistance to workers exposed to cyanide. Training includes the use of the cyanide antidote kit maintained by the site.

Drills are conducted twice annually to test general response to chemical emergencies, including chemical exposure. Corrective actions are processed and emergency procedures are revised as necessary following the drills.

Emergency drills are evaluated from a training perspective. The reports on the emergency drills performed during the re-certification period show that the drills were evaluated by the site management and operators. Improvement actions were processed when recommendations following the drills were made.

The site keeps training records and evaluation results of all trained workers. Training records are maintained for at least as long as the employee is working at the site. Records since year 2010 were reviewed, and were found to be sufficiently detailed to be found conformant.

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015



## 5. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities.

<u>Production Practice 5.1</u>: Prepare detailed emergency response plans for potential cyanide releases.

The operation is **☑** in full compliance with Production Practice 5.1

Summarize the basis for this Finding:

CyPlus has developed an Emergency Response Plan (ERP) specific to the site to address potential releases of cyanide that may occur on site. It address procedures to follow in case of cyanide release, fire and explosion, including potential releases of cyanide from the transloading operation.

The ERP considers the potential failure scenarios appropriate for its site-specific environmental and operating circumstances, including potential releases of cyanide from the ISO tank loading area, cases of fire and explosion, and situations where wash water systems may malfunction. There are no cyanide solutions processed or managed at this facility, and there are therefore no cyanide solution-related scenarios in the ERP. This was found to be appropriate by the audit team.

The ERP does consider cases of loss or power failure during the transfer operation at the ISO tank area. The ERP also includes specific actions such as evacuation in case of a cyanide release (including ISO tank loading area). The ERP specifies the telephone numbers and the notification procedure to be followed in the event of an emergency.

The ERP calls for control of releases at their source for transport, unloading/loading and warehouse. The ERP and the cyanide exposure procedure also describe how to use cyanide antidotes and first aid measures to be taken in the event of a cyanide exposure.

*Production Practice 5.2:* Involve site personnel and stakeholders in the planning process.

The operation is **☑** in full compliance with Production Practice 5.2

*Summarize the basis for this Finding:* 

CyPlus has involved its workforce, authorities and the adjacent facilities in the emergency response planning process. Local agencies such as the Red Cross, State Civil Protection Agency, Fire Department and the local hospital were trained by CyPlus and informed of their

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015

Da

Name of Operation

Page 14 of 17



responsibilities in case of an emergency. The adjacent facilities were informed on the coordination required in case an evacuation is required.

CyPlus facility is located within an industrial park in Obregon. The site has informed adjacent facilities and civil protection authorities about the nature of its operations and associated risks. The facility was able to demonstrate through interviews and through communication records that they are in regular contact with local authorities and others in the industrial park.

The Police Department, Fire Department, Red Cross, State Civil Protection Agency and the local hospital received training on cyanide and participated in emergency drills during the recertification period. CyPlus provided training to the neighbors and external responders on a regular basis during the re-certification period and performed two emergency drills per year involving the stakeholders.

<u>Production Practice 5.3</u>: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is  $\square$  in full compliance with Production Practice 5.3

Summarize the basis for this Finding:

The CyPlus ERP designates primary and alternate emergency response coordinators with explicit authority to commit the resources necessary to implement the emergency plans. Operators, management personnel and office staff are members of the site emergency response brigade. The site manager is the brigade coordinator and the office employee is the person in charge of internal and external communications in case of emergency. Responsibility, authority, and duties for managing an emergency situation are clearly described in the emergency procedures.

The emergency response team is identified in the plan. The team was trained by qualified CyPlus personnel and by a National Association of Chemical Industry (ANIQ) trainer. The ERP includes the responsibilities and training needs of emergency responders.

The ERP includes telephone numbers of the local emergency response agencies and CyPlus representatives. The telephone list with emergency telephone numbers list was found to be up-to-date. Additionally, the CyPlus website shows 24-hour contact information for the Mexican operation. The responsibilities, authorities and duties for managing an emergency situation are clearly described in the ERP. Emergency plans also list the emergency response equipment that is maintained by the site.

The emergency response equipment is inspected monthly using a checklist. Its availability and operability was confirmed during the audit. Completed checklists were reviewed and were available for the re-certification period. Interviews were used to confirm awareness and general

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor

October 15, 2015

Date

Page 15 of 17



equipment inspection practices. The role of the local emergency response agencies is described in the emergency response plan; they have participated in the emergency drills conducted by the site.

CyPlus has confirmed that outside entities included in the ERP are aware of their involvement. External responders are included in the emergency response drills and implementation exercises. CyPlus also has an agreement with the hospital in Obregon to provide medical attention to exposed workers that require attention beyond the site capabilities. Interactions, collaborative emergency response planning strategies, and training programs offered to external responders were found to be comprehensive and appropriate for the operation.

<u>Production Practice 5.4</u>: Develop procedures for internal and external emergency notification and reporting.

The operation is ☐ in full compliance with Production Practice 5.4

Summarize the basis for this Finding:

The ERP includes up-to-date emergency telephone numbers. Telephones numbers of the nearest hospital and local emergency agencies, as well as CyPlus emergency numbers are included. The ERP also establishes who is responsible for calling the external responders and authorities.

The warehouse is located within an industrial park; the contact information in the ERP includes the names of the adjacent facilities that would be notified in case of an emergency. The ERP includes information about who needs to make the notifications (in the event of an emergency) to CyPlus leadership, neighboring industrial partners, and authorities.

<u>Production Practice 5.5</u>: Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The operation is **☑** in full compliance with Production Practice 5.5

*Summarize the basis for this Finding:* 

The ERP describes the specific measures to recover cyanide in a solid state and the procedure to decontaminate material used during the cyanide recovery. If required, contaminated solids are disposed of as hazardous waste through an authorized company. The scenarios identified are consistent with the activities performed on site.

CyPlus - Obregon Terminal & Warehouse

Signature of Lead Auditor

October 15, 2015

Date

Name of Operation

Page 16 of 17



Considering that all activities are performed inside the site facility and there are no surface water bodies near the site, question 5.5.2 was determined to be not applicable.

Considering that all activities are performed inside the warehouse on concrete pavement and there are no surface water bodies near the site, question 5.5.3 was also found to be not applicable. In case of a cyanide release, it would be controlled inside the facility. No known releases to air, ground, or water are known to have occurred at this site. An environmental monitoring plan is, therefore, not required.

<u>Production Practice 5.6</u>: Periodically evaluate response procedures and capabilities and

revise them as needed.

The operation is **☑** in full compliance with Production Practice 5.6

Summarize the basis for this Finding:

The ERP states that the emergency plans are reviewed at least once a year and that emergency response drills are performed two times per year.

Emergency mock drills have been conducted twice a year through the audit re-certification period. Emergency drills are evaluated by the site management, workers and local emergency agencies. Lessons learned from the emergency drills are considered when updating the Emergency Response Plan and procedures.

The ERP states that emergency plans will be reviewed and updated after any emergency or recommendations following an emergency response drill.

CyPlus - Obregon Terminal & Warehouse

Name of Operation

Signature of Lead Auditor

Page 17 of 17

October 15, 2015