

## REPORT

# ICMC CYANIDE PRODUCTION RECERTIFICATION AUDIT - SUMMARY AUDIT REPORT

CyPlus Idesa Transloading Terminal and Warehouse, Sonora, Mexico

#### Submitted to:

## International Cyanide Management Institute (ICMI)

1400 I Street, NW - Suite 500 Washington, DC 20005

## CyPlus Idesa S.A.P.I. de C.V.

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Submitted by:

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Project No. 18107196

September 2019

# **Distribution List**

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## 1.0 SUMMARY AUDIT REPORT FOR CYANIDE PRODUCTION OPERATIONS

Name of Cyanide Production Facility:	Transloading Terminal and Warehouse
Name of Facility Owner:	CyPlus Idesa S.A.P.I. de C.V.
Name of Facility Operator:	CyPlus Idesa S.A.P.I. de C.V.
Name of Responsible Manager:	Javier Federico Tellez
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Kat R Jour Signature of Lead Auditor

## 2.0 PRODUCTION OVERVIEW

The Transloading Terminal and Warehouse receives solid cyanide in trucks containing 20 1-ton wooden boxes with polypropylene supersacks. The boxes are unloaded and stored within the warehouse. Depending on the needs of the mines, the boxes are re-loaded into trucks for delivery to the mines or transferred from the boxes to isotankers. The transfer requires opening the boxes and supersacks into the hopper of a transloading machine that then uses a conveyor system to load the briquettes into the isotanker through the ports on top of the isotanker. The transfer system is completely enclosed to minimize the potential for release of cyanide dust. The isotankers are then driven to the mines for delivery of the product. The Transloading Terminal and Warehouse is in the city of Ciudad Obregon, Sonora, Mexico (Figure 1). Hereafter, the term "warehouse" will be used instead of "Transloading Terminal and Warehouse" for simplicity. The warehouse is an integral part of the Mexico Supply Chain for CyPlus Idesa S.A.P.I. de C.V. (CyPlus).



Figure 1: Site Location Map

September 9, 2019 Date

Kot R John Signature of Lead Auditor



## 3.0 SUMMARY AUDIT REPORT Auditor Findings

	ig i in full compliance with	
Transloading Terminal and Warehouse is:	in substantial compliance with	The International Cyanide Management Code
	not in compliance with	
The operation has not experie	nced compliance problems during the previous th	hree-year audit cycle.
Audit Company:	Golder Associates Inc.	
Audit Team Leader:	Kent R. Johnejack	
Email:	kjohnejack@golder.com	

## **Names of Other Auditors**

The audit was undertaken solely by Kent R. Johnejack of Golder Associates Inc. Mr. Johnejack is pre-certified as a Lead Auditor and Production Technical Specialist by the International Cyanide Management Institute (ICMI) and he acted in these capacities during the audit.

## **Dates of Audit**

The Recertification Audit was undertaken over 1.5 days between February 11 and 12, 2019.

## **Attestation**

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the ICMI and that all members of the audit team meet the applicable criteria established by the ICMI 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 (ICMC or Code) Verification Protocol for Cyanide Production Operations and using standard and accepted practices for health, safety and environmental audits.

Transloading Terminal and Warehouse Name of Operation

Kat R John

Signature of Lead Auditor

September 9, 2019 Date

September 9, 2019 Date

Signature of Lead Auditor



## **PRINCIPLE 1 – OPERATIONS**

# Design, Construct and Operated Cyanide Production Facilities to Prevent Release of Cyanide

Production Practice 1.1: Design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures ⊠ in full compliance with

 The operation is
 In substantial compliance with
 Production Practice 1.1

 In not in compliance with
 In the compliance with
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#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 1.1; design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures.

Quality Assurance/Quality Control (QA/QC) programs were implemented during construction of the cyanide production and storage facilities. There have been no significant changes to the facility requiring design or QA/QC during the current recertification period nor during the previous recertification period. Therefore, compliance was achieved at the time of the initial certification audit. The QA/QC records had been retained and that the warehouse to be in good condition.

The warehouse does not use reagents in chemical processes and the only process is the physical process of transloading cyanide from boxes to isotankers. The warehouse is constructed with a concrete floor, concrete block and sheet metal walls, and a sheet metal roof. The transloading machine and associated piping and tanks are made of steel and high-density polyethylene (HDPE). These materials are compatible with the cyanide-related activities in the warehouse.

The transloading machine has systems to shut down in the event of power outages, equipment failures, and isotanker overfilling. An interlock is a connected to a sensor in the loading bell where it attaches to the port of the isotanker. If cyanide briquettes rise to the level of that sensor, then the machine automatically stops, and alarms are activated. The operators inspect the electronics system before each transfer, including the sensor, and the electronics system checks the sensor for functionality during start-up. If the sensor is not functioning properly, the machine will not start until the sensor is maintained. The entire warehouse floor, including the transloading area, was constructed of concrete to minimize the potential for seepage to the subsurface. The floor was in good condition.

There are two small secondary containments inside the warehouse in the transloading area for three small tanks to contain isotanker washdown water. Both containments are sized significantly greater than the volume of the largest tank within, as demonstrated by a calculation worksheet. The pipeline from the transloading area to the tank is pipe-in-pipe to provide secondary containment.

Signature of Lead Auditor



Production Practice 1.2:	Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.	
	igvee in full compliance with	
The operation is	in substantial compliance with	Production Practice 1.2
	not in compliance with	

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 1.2; develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

CyPlus has developed a set of standard operating procedures that cover the appropriate components and activities for safe and environmentally sound operation. Sections include purpose, scope, definitions, change history, steps of the activity, safety measures and equipment, and references. These procedures are updated as needed and were all dated in 2018 and 2019.

The warehouse has two procedures that detail contingency measures to be implemented if there is an upset in any activity that may result in cyanide exposures or releases. The first procedure addresses leaks, spills, and fires, as well as evacuation. The second procedure addresses worker exposure to cyanide.

CyPlus has developed a change management procedure that identifies when site operating practices have or will be changed from those on which the initial design and operating practices were predicated. The changes are reviewed by a safety and environment representative.

Maintenance programs are implemented and documented for cyanide-related equipment. CyPlus has prepared two procedures to guide maintenance, as well as an annual schedule for preventive maintenance. Maintenance is recorded in inspection and maintenance logbooks and forms. There is no process equipment that requires calibration.

CyPlus has implemented procedures to prevent discharge to the environment of any water in secondary containments. The only potential cyanide solutions generated at the warehouse are the isotanker washdown water, equipment decontamination water, and clothes washing water. Solution found in the secondary containments would be pumped back to these tanks. The small portable tank is periodically shipped to a local mine for disposal of the water.

The facility has environmentally sound procedures for disposal of cyanide or cyanide-contaminated solids. The only solids potentially contaminated with cyanide are wooden box parts, polypropylene bags, Tyvek suits, and other personal protective equipment (PPE). These materials are shipped to a hazardous waste management provider in Queretaro or Hermosillo.

Solid cyanide is stored in the warehouse with adequate ventilation, protection from water, and security. Ventilation is provided by rotating roof vents and fans in the transloading area. Cyanide is protected from water by the roof, walls, and raised floor of the warehouse, as well as the wooden boxes and polypropylene bags themselves. Security is provided by locked doors, video cameras inside and outside the warehouse, and a night guard.

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Signature of Lead Auditor



Boxes are labelled in three languages at the plant using standard United Nations symbols and text. Isotankers are permanently labelled with similar signage. Packaging is checked at the time of reception according to a written procedure and checklist.

Production Practice 1.3:	Inspect cyanide production facilities to accidental releases.	o ensure their integrity and prevent
	igvee in full compliance with	
The operation is	in substantial compliance with	Production Practice 1.3
	not in compliance with	

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 1.3; inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

The warehouse is largely operated as a dry facility and has only a limited number of tanks, valves, pipelines and containments requiring inspection. These consist of a sump, pump, and pipeline for washdown water from the transloading area to three small tanks inside two secondary containments. These components are inspected at frequencies sufficient to assure equipment is functioning as designed. These frequencies vary from daily, monthly, semi-annual, and annual depending on the item being inspected. The inspections forms identify the specific items to be evaluated, as well as the date of inspection, the name and signature of the inspector, and any observed deficiencies. In some cases when deficiencies were noted, corrective actions were noted on the forms. By interview, the staff demonstrated knowledge that corrective actions were completed as necessary. The auditor reviewed examples of inspection forms and logbooks from the recertification period to verify compliance.

RJou Signature of Lead Auditor



## **PRINCIPLE 2 – WORKER SAFETY**

## Protect Workers' Health and Safety from Exposure to Cyanide

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

 \[in full compliance with

 in full compliance with

 The operation is

 in substantial compliance with

 in ot in compliance with

 Production Practice 2.1

## Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 2.1; develop and implement procedures to protect plant personnel from exposure to cyanide.

CyPlus has developed procedures to minimize worker exposure during normal plant operations; non-routine and emergency operations; and maintenance activities. Procedures have been developed for receiving and storing chemicals, delivery of chemicals, solid waste management, loading/unloading, forklift use, cyanide transfer from boxes to isotankers, use of safety equipment, empty isotankers, washing work clothes, managing wash water, and others. Procedures have been developed for emergencies, cyanide exposures, damaged boxes, non-conforming products, crisis management, and communications. Procedures have been developed for maintenance, as well as inspection and cleaning of the warehouse.

The warehouse has a management of change procedure to review proposed process and operational changes with respect to worker health and safety. The change management requests are approved and signed by the Environmental, Safety, Health, and Quality (ESHQ) Manager.

CyPlus has actively solicited and considered worker input into health and safety procedures by means "process mapping" involving the entire staff. These "maps" that define the steps, documents, inputs/outputs, and environmental, health and safety aspects for five activities: Receipt, Storage, and Shipping, Transfer, and Waste Management for Chemicals. The auditor reviewed the process maps and attendance lists to verify compliance.

CyPlus has provided workers with portable hydrogen cyanide gas (HCN) monitors to wear during cyanide-related activities. The alert level is set at 4.7 parts per million (ppm) and the alarm level is set at 10 ppm. An alert results in reporting to the warehouse supervisor, investigating the cause, and ventilating the area with a large moveable fan. An alarm results in warehouse evacuation. The portable HCN monitors were calibrated every six months as recommended by the manufacturer. The auditors reviewed calibration certificates for the recertification period to verify compliance.

In accordance with Mexican regulations, CyPlus has contracted monitoring every two years to identify areas and activities where workers may be exposed to HCN and/or cyanide dust. The auditor reviewed the consultant reports from 2016 and 2018 to verify that HCN and cyanide dust levels were below regulatory action levels for worker exposure. Procedures also require the use of PPE, including steel toe boots, safety glasses, work clothes, respirators, neoprene gloves, and portable HCN monitors. In case of emergency, additional PPE includes Tyvek suits and self-contained breathing apparatus (SCBAs).





Procedures require that the buddy system be used. Workers carry radios and cell phones for communication. In addition, there is 24-hour per day video surveillance inside and outside the warehouse.

CyPlus, as part of their corporate policy, requires annual occupational health examinations for the warehouse workers to assess their fitness to perform specified tasks. Invoices from a local hospital were reviewed to verify compliance.

CyPlus has developed and implemented a procedure of cleaning work clothes each shift. Potentially contaminated work clothes are washed onsite rather than taken home. The auditor observed the change room with lockers and the dedicated washing and drying machines to verify compliance

CyPlus has placed suitable signs at multiple locations in the warehouse advising that cyanide is present and defining the required PPE. Additional signs have been placed at multiple locations to prohibit smoking, eating, drinking, and open flames.

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

 In full compliance with

 The operation is
 In substantial compliance with

 Production Practice 2.2

 In not in compliance with

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 2.2; develop and implement plans and procedures for rapid and effective response to cyanide exposure.

CyPlus has developed two written emergency response procedures should cyanide exposure occur. The first procedure is the Emergency Response Plan (ERP) and the second procedure details how to respond to cyanide exposures.

The warehouse has shower/eyewash stations. Non-acidic fire extinguishers are located throughout the warehouse. The auditor tested the stations to verify functionality and low water pressure. CyPlus inspects the shower/eyewash stations and fire extinguishers monthly. An external contractor tests the fire extinguishers annually.

The warehouse has water, oxygen, an automatic external defibrillator (AED), and communication devices readily available. Communication is accomplished with cell phones and radios that have a man-down button. Two types of antidotes were observed: sodium nitrite and sodium thiosulfate. The antidotes are stored in the air-conditioned warehouse office at the manufacturer's recommended temperature. All antidotes were current. CyPlus inspects the first aid and emergency equipment on a monthly or quarterly basis, depending on the item.

There are safety data sheets (SDS) for cyanide in both wings of the warehouse. The SDS are in Spanish, the language of the workforce.

There is a short run of piping from the sump at the transfer area to the two small HDPE tanks. Labels on the pipes indicated cyanide and the direction of flow. The two tanks are labelled as containing cyanide.





CyPlus has developed decontamination procedures that require work clothes be washed and workers shower at the end of shifts involving cyanide work. All those leaving the warehouse area must wash their hands.

CyPlus has onsite capability to provide first aid and medical assistance to workers exposed to cyanide. Emergency response equipment includes oxygen tanks, an AED, Tyvek suits, SCBAs, full-face respirators, chemical-resistant boots and gloves, as well as decontamination equipment and tools. Antidotes are stored in the office. Warehouse staff have been trained as first responders. However, workers will notify the hospital and administer oxygen; medical personnel will administer antidotes.

CyPlus has established a procedure for responding to cyanide exposures that covers transport by hospital ambulance or by worker vehicles. A local hospital, which is approximately five minutes away, has been contracted to treat patients for cyanide exposure. CyPlus has trained the hospital staff, provided antidotes to them, and given them a written procedure.

CyPlus has conducted mock drills that included releases and exposures during the recertification period. The emergency brigade was mobilized. Decontamination and evacuation were practiced. Staff from a trucking company also participated in one of the drills. Opportunities for improvement in future drills were identified.

CyPlus has developed and implemented a procedure for the investigation and evaluation of accidents and incidents. The warehouse experienced a cyanide exposure incident with an empty, but still pressurized, isotanker during the recertification period. The incident was classified as not significant and the transfer procedure was subsequently revised.

September 9, 2019 Date

RJAN Signature of Lead Auditor



## **PRINCIPLE 3 – MONITORING**

## Ensure that Process Controls are Protective of the Environment.

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

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#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 3.1; conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

This majority of the Standard or Practice is inapplicable because the warehouse does not discharge to surface water or groundwater. There are no requirements or need to perform surface water or groundwater monitoring.

However, CyPlus is required by Mexican regulations to conduct indoor air analysis for HCN and cyanide dust every two years. The auditors reviewed the consultant reports from 2016 and 2018 to verify that HCN and cyanide dust levels were below regulatory action levels for worker exposure. By inference, the nearby businesses in the industrial park would also be protected.





## **PRINCIPLE 4 – TRAINING**

# Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner

Production Practice 4.1:	Train employees to operate the plant in a manner that minimizes the potential for cyanide exposures and releases.	
	igvee in full compliance with	
The operation is	in substantial compliance with	Production Practice 4.1
	not in compliance with	

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 4.1; train employees to operate the plant in a manner that minimises the potential for cyanide exposures and releases.

CyPlus trains the warehouse workers annually to understand cyanide hazards and to use the appropriate PPE. The auditors confirmed that the training is listed for each warehouse worker in the training matrix and reviewed attendance lists for the recertification period to verify compliance.

CyPlus has trained warehouse workers to perform their normal production tasks with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases. Task training is included in the annual safety training. Forklift training is also provided annually. The appropriate training elements have been included in a PowerPoint presentation for safety training, the process maps of warehouse activities, and the procedures. Warehouse workers showed good awareness of procedures during the warehouse tour.

CyPlus has trained warehouse workers prior to allowing them to work independently with cyanide. By interview and review of attendance lists, the auditor confirmed that the most recent new worker received a 17-hour induction. The effectiveness of training has been confirmed by testing and observation.

CyPlus has provided training by appropriately qualified personnel, the corporate ESHQ Manager. He is a chemical engineer with approximately 10 years of experience with another cyanide producer, the national chemical industry association (Association of the Chemical Industry (Asociación Nacional de la Industria Química [ANIQ]), and the national chemical response agency (Sistema de Emergencia para la Transportación de la Industria Química [SETIQ]).

Production Practice 4.2:	Train employees to respond to cyanide exposures and releases.
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## in full compliance with □

The operation is

in substantial compliance with

**Production Practice 4.2** 

not in compliance with

Summarize the basis for this Finding:

September 9, 2019 Date





The operation is in FULL COMPLIANCE with Production Practice 4.2; train employees to respond to cyanide exposures and releases.

CyPlus has trained warehouse workers to respond to cyanide releases and worker exposures. These trainings have covered safe cyanide management, antidote usage, and hazmat. Mock drills of both releases and exposures have been used to test and improve these skills. Even though only trained medical staff are allowed to administer the antidotes, the warehouse workers have taken the same training as the medical staff. The auditor reviewed training materials, certificates, and attendance lists to verify compliance.

CyPlus has conducted three mock drills during the recertification period. Opportunities for improvement in future drills were identified. In one drill, a finding was that refresher training was needed on how to immobilize a victim on a stretcher. In another drill, the finding was that fire extinguisher training was adequate. In both cases, however, training procedures did not need to be revised.

CyPlus has retained worker training records throughout an individual's employment, and these records include the required information.

September 9, 2019 Date



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## **PRINCIPLE 5 – EMERGENCY RESPONSE**

# Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities

Production Practice 5.1:	Prepare detailed emergency response plans for potential cyanide releases.	
	igvee in full compliance with	
The operation is	in substantial compliance with	Production Practice 5.1
	not in compliance with	

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 5.1; prepare detailed emergency response plans for potential cyanide releases.

CyPlus has developed an ERP and an accompanying procedure for responding to cyanide exposures. The ERP considers potential failure scenarios for its site-specific environmental and operating circumstances. These scenarios include warehouse evacuation due to a catastrophic cyanide release; leaks or spills during loading, unloading, or transfer operations; releases during fires and explosions; power outages; and equipment failures. Scenarios involving process solutions, ponds, tanks, and treatment are inapplicable.

The ERP also describes response actions for leaks, spills, fire, confined spaces, injured workers, site evacuation and controlling sources. A section on return to normal operations describes containment, assessment, mitigation, and prevention of future releases. There is also a community telephone directory for contacting the neighboring industrial facilities should a broader evacuation be needed.

The procedure for cyanide exposures describes actions for inhalation, absorption, and ingestion for both conscious and unconscious victims. Warehouse staff would administer oxygen but only trained medical staff from the hospital/ ambulance (approximately five minutes away) can administer the antidotes.

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

 $\boxtimes$  in full compliance with

The operation is

in substantial compliance with **Production Practice 5.2** 

not in compliance with

## Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 5.2; involve site personnel and stakeholders in the planning process.

CyPlus has made potentially affected communities aware of the nature of the risks associated with accidental cyanide releases and has consulted with them regarding what communications and response actions are appropriate. The warehouse is in an industrial park and the nearby businesses consist of a pharmacy warehouse,

Signature of Lead Auditor



a trucking company, a grain storage facility, a fertilizer company, and a television station. There are no residences within 0.5 kilometers.

There have been no material changes to the facility, conditions, or risks during the recertification period.

Potentially affected communities and stakeholders were involved in the initial environmental risk study and the environmental license for the warehouse. Ongoing engagement in the emergency planning process has involved warehouse workers, local and regional hospitals, firefighters, red cross, police, universities, and others. Engagement has consisted of cyanide antidote and cyanide management trainings, as well as three mock drills with warehouse workers and staff from two trucking contractors.

# Production Practice 5.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response. □ in full compliance with □ in substantial compliance with Production Practice 5.3

not in compliance with

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 5.3; designate appropriate personnel and commit necessary equipment and resources for emergency response.

The ERP designates the warehouse manager as the primary response coordinator and the corporate ESHQ Manager as the alternate. Both have the explicit authority to commit the resources necessary to implement the ERP. The five warehouse workers are members of the brigade and all have the same the duties. Emergency training includes evacuation routes, search and rescue, SCBA use, first aid, AED use, and hazmat. An emergency telephone list includes 24-hour contact information for the brigade. An emergency equipment checklist specifies the available equipment and doubles as the monthly inspection form. This equipment is stored in a separate room in a wing of the warehouse. The auditor inspected the equipment and reviewed completed inspection checklists from throughout the recertification period to verify compliance.

The ERP and Crisis Management Plan describe the roles of outside responders, medical facilities, or communities in emergency response procedures. The primary outside role is for the local hospital to provide an ambulance and trained medical staff to administer antidotes. CyPlus has confirmed that outside entities with roles are aware of their involvement and have been included in trainings for cyanide first aid and antidote use. Other local and regional entities, such as hospitals, firefighters, red cross, police, universities, have also been trained.

# Production Practice 5.4: Develop procedures for internal and external emergency notification and reporting.

#### in full compliance with

The operation is

in substantial compliance with

**Production Practice 5.4** 

not in compliance with

## Summarize the basis for this Finding:

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The operation is in FULL COMPLIANCE with Production Practice 5.4; develop procedures for internal and external emergency notification and reporting.

The ERP contains procedures notifying management, agencies, responders, medical facilities, and others. The Crisis Management Plan and the Communication Plan contain procedures for external corporate communications with potentially affected communities and the media. CyPlus has posted two current contact lists in the warehouse offices. The first list is for the nearby businesses in the industrial park and the second is for internal managers, external agencies, responders, and the local hospital. The primary contact in a chemical emergency is the national chemical response agency, SETIQ, who in turn would contact other responders. SETIQ has a hotline available 24 hours per day and 7 days per week.

The Crisis Management Plan and Communication Plan contain procedures for contacting potentially affected communities and the media.

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

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 Production Practice 5.5

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 5.5; incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The ERP describes remediation measures for recovery of cyanide briquettes using brooms, shovels, bags, and pails. There are no cyanide process solutions used at the warehouse, but in the unlikely event of a liquid clean-up, the ERP indicates that absorbent materials or sand would be used, followed by recovery as with solid cyanide. Neutralization and treatment are not contemplated. The entire warehouse and areas immediately around it are concrete, meaning releases to soil are not anticipated. Recovered materials would be returned to the boxes or isotankers or properly disposed as a hazardous waste. Provision of an alternative water supply is inapplicable because the warehouse and surrounding businesses are supplied by city water with the sources distant from the industrial park.

The prohibition on the use of sodium hypochlorite, ferrous sulphate and hydrogen peroxide is inapplicable because there is no surface water nearby. In any case, releases would occur on concrete surfaces where no environmental media would be affected. Therefore, an environmental sampling plan is similarly inapplicable.

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Signature of Lead Auditor



Production Practice 5.6:	Periodically evaluate response procedures and capabilities and revise them as needed.	
	igodoldoldoldoldoldoldoldoldoldoldoldoldol	
The operation is	in substantial compliance with	Production Practice 5.6
	not in compliance with	

#### Summarize the basis for this Finding:

The operation is in FULL COMPLIANCE with Production Practice 5.6; periodically evaluate response procedures and capabilities and revise them as needed.

According to a corporate manager, the document control policy requires that emergency plans be updated when conditions change. The ERP and procedure for responding to cyanide exposures contain a section on document revisions. Both have been updated twice during the recertification period. In addition, CyPlus has provided related evidence of review and update of an operational procedure after an actual incident. In the absence of a written provision to review the ERP on an established frequency and after its activation, the auditor relied on the actual revision history, as well as the updating of an operational procedure after an incident, to justify full compliance.

CyPlus has conducted mock drills during the recertification period. Opportunities for improvement for future drills have been noted in the drill reports. None of these opportunities involved changes to the ERP or procedure for responding to cyanide exposures.

September 9, 2019 Date





## Signature Page

Golder Associates Inc.

Kat R Jour

Kent R. Johnejack Lead Auditor and Production Technical Specialist

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<u>September 9, 2019</u> Date

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