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

**Cyanide Production Operations** 

(Summary Audit Report)

Coatzacoalcos

Veracruz, México



Submitted by:



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Signature of Lead Auditor
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Submitted to:
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June 21<sup>st</sup>, 2023 Submittal Date JUNE 2021

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## **A- Operation General Information**

Name of Production Facility:	CyPlus Idesa, S.A.P.I. de C.V.
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Address:	Boulevard Morelos km 4.2, Parque Industrial Petroquímico Morelos
State/Province:	Coatzacoalcos, Veracruz.
Country	México

## **B- Operation Location Detail and Description:**

CyPlus Idesa, S.A.P.I. de C.V. (hereinafter CyPlus Idesa) is a Joint Venture founded in 2013 between Grupo Idesa, Mexico, and EVONIK, Germany. Since the start of production in Mexico in 2016, CyPlus Idesa has supplied sodium cyanide to the mining industry with the support of CyPlus GmbH.

In August 2019, CyPlus GmbH became part of the RÖHM Group, a 100% subsidiary of Advent International. Founded in 1984, Advent International is one of the world's largest private equity investors.

The sodium cyanide manufacturing plant is located at Boulevard Morelos Km 4.2, Parque Industrial Petroquímico Morelos, C.P. 96400, Coatzacoalcos, Veracruz, Mexico.

CyPlus Idesa produces solid sodium cyanide in briquettes which is delivered in two types of packaging. Solid sodium cyanide is packed in UN-approved big bags in wooden boxes as one-way box or returnable box with a capacity of 1 ton each. The UN mark is an international system created by the UN to provide standards for the classification, packaging, marking and labeling of dangerous goods so when transporting any hazardous material, the packaging grants safety in all

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modes of transport. CyPlus Idesa uses highquality packaging to ensure the safest storage and transportation of cyanide, and certified ISO containers.

CyPlus Idesa is the first and only manufacturer of sodium cyanide in Mexico, supplying approximately 40,000 tons per year to the Mexican market. The company's strengths include providing customer training in safety, emergency response, and toxicological risks. The toxicological training is conducted by a medical professional trained in Germany.

The facilities have not undergone substantial changes since the previous audit.

The International Cyanide Management Institute (ICMI) granted the first pre-operational certification in 2016, and the first audit during full operation was carried out in February 2017, formally beginning on September 20, 2016. The operation was recertified in July 2020. The March 2023 audit corresponds to the fourth recertification audit.

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## Auditor's Finding

This operation is

✓ in full compliance with the International Cyanide Management Code.

"This operation has not experienced any compliance issues or significant cyanide incidents during the previous three-year audit cycle."

### **Auditor Information**

Audit Company: Geosoluciones Panamá, S.A.

Lead Auditor: Jorge Efrén Chong Pérez

Lead Auditor Email: geosoluciones@cwpanama.net

Auditor 1: Jorge Efrén Chong Pérez, Lead Auditor

Name

Signature

Dates of Audit: March 27-31<sup>th</sup>, 2023

## **Auditor Attestation**

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit Lead Auditor, 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 Certification Auditors.

I attest that this Summary Audit Report accurately describes 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 Cyanide Transportation Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

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**Principles and Standards of Practice** 

Principle 1 | OPERATIONS

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

Standard of Practice 1.1

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 Standard of Practice 1.1

Summarize the basis for this Finding Identified:

There have been no changes to the original design of the operating plant or the cyanide storage

facility. The construction designs and associated documentation are still retained and were

developed by Specialized Construction Engineering Company.

The general Layout shows the overall layout of the plant, which includes detailed plans of

pavements, walkways, and facades of the operation building, laboratory, logistics office, and

spare parts warehouse. The total area, including tanks, process plant, parking, roads, and

buildings.

All designs were reviewed by one of the world's leading companies in the field of heavy plant

engineering and qualified personnel. Each section of the plant has its corresponding detail.

All buildings have drawings/As Built and construction reports.

The construction of the cyanide production plant was carried out taking into consideration

materials and structural elements resistant to the substances used and the proximity to the

marine coastline, located to the north of the facility.

The engineering documentation indicate the materials used in tanks, sumps, linings in effluent

treatment sites, following requirements of mechanical, chemical, and thermal resistance. The

pipes were assembled with stainless steel.

The Mexican Ministry of Labor and Social Welfare "Secretaría del Trabajo y Prevención Social"

(STPS) regulation considers non-destructive testing within the first 10 years of operation for

components and equipment purchased used or rehabilitated every 5 years, with regard to

pressure vessels, cryogenic vessels, and steam generators or boilers.

The equipment was purchased new and is within the NOM-020-STPS-2011 regulation,

https://www.dof.gob.mx/ section 13.1.

https://www.dof.gob.mx/nota\_detalle.php?codigo=5375011&fecha=09/12/2014#gsc.tab=0

According to procedure PSP-93030, called PLANT EMERGENCY STOP (PARO DE EMERGENCIA DE

PLANTA), describes the activities to be carried out in case of an electrical failure, in which a

generator starts operating for critical equipment.

During an electrical failure, the Plant will shut down and the valves will switch to their safe mode,

triggering the safety interlocks. It is the responsibility of the field production operators to verify

the proper operation of this sequence.

The floors of the plant are made of concrete and steel lining. The upper floors are grills (made of

galvanized iron) and stainless-steel plates.

There are eyewash stations on each levels of the plant, which have independent drains to prevent

water leaks to other levels.

At the bottom of the building of the operations plant, there is a spill capture tank under which

there is also an independent spill collector tank.

The floors of the warehouse, filling area, and forklift circulation area are made of concrete and

show integrity in terms of the absence of cracks.

The Plant control system has a remote power supply system in case of power failure.

From the control room, tank levels are monitored and audible filling alarms are verified, allowing

for immediate actions to be taken if necessary.

The rainwater, water from laundry and laboratory chemical drainage, is collected in a vessel and

processed in the detoxification unit.

To determine the concentration of the solution, a sampling plan for the pits is in place.

The applicable procedures are:

1. PSP-93018 DETOX Operation

2. PSP-93025 Management of Dams and Pits

CyPlus Idesa has a Sampling Plan in place.

All overflows from any pipe in the process plant will either fall into tank or, alternatively, into the dam pit. This includes laundry water from worker uniforms, laboratory solutions, and other sources. Depending on their concentration, these overflows will be either treated in the detox

plant or recycled back into the manufacturing process.

Non-destructive testing is carried out on the process plant pipes as required by Mexican

legislation.

The warehouse has metal roofing structures and concrete beams and columns. It is restricted to the public and protected from moisture. There are ten (10) natural ventilation openings in the

roof, lateral windows with rain protection, as well as natural and electric lighting.

Entry access opening for the finished product and openings for the exit or dispatch of

containerized cargo to customers.

The procedure PSP-97503 rev.2 dated January 10, 2023, Storage of Finished Product (NaCN)

"Almacenamiento de producto teminado (NaCN)", governs everything related to the distribution

of storage and its configuration for adequate ventilation, achieved through 10 openings for

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natural ventilation and space between the boxes and the roof, sufficient for acceptable

ventilation.

The roof was built with 10 natural ventilation openings and four north-south oriented skylights.

The warehouse has enough space to fill two trucks simultaneously with the use of two gas-

powered forklifts. It was observed that the forklift operators wore their seatbelts, had valid

driver's licenses, and that the forklifts were equipped with reverse alarms and had current

inspection certificates.

The forklift mobilization areas are strictly for this purpose, and no one is allowed to enter them.

The warehouse is a facility located within the CyPlus Idesa factory with restricted access and

perimeter fencing.

The storage of substances or materials incompatible with cyanide is not allowed in the

warehouse.

Standard of Practice 1.2

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 Standard of Practice 1.2

Summarize the basis for this Finding Identified:

CyPlus Idesa has implemented standard procedures and practices for the operation and

maintenance of hazardous waste washing, equipment start-ups, chemical reagent discharges, big

bag filling, Detox operation, dam and pit management.

Other procedures related to maintenance such as calibrations, preventive and planned maintenance, and inspections have been implemented. Work instructions related to operation and maintenance are associated with these procedures. The auditor reviewed some procedures, while others were explained in an interview with the continuous improvement engineer.

Procedure PSP-90020, rev. 1 PSP-90020 "Recorridos" BOS (Behavior Observations of Safety) establishes the routes and frequency of safety inspections.

Any event must be corrected immediately, conditions are determined by the level of risk and based on section 2.1 (risk levels) of the procedure.

Intermediate bulk containers (IBCs) are not loaded inside other containers. CyPlus Idesa maintains established procedures for the loading and dispatching of one-ton wooden crates into maritime containers, complete with detailed instructions for securing the cargo. The applicable procedures for these operations encompass:

- 1. PSP-97502: Execution of the Loading and Dispatching of Finished Products
- 2. PSP-93017: Conducting the Filling Process for SLS Containers
- 3. ITAC-97502: Proper Placement, Fastening, and Securing of Cargo

The CyPlus Idesa plant and storage facility has procedures for the safe operation of the plant. Interviews with personnel working in the operations control room showed that they have procedures for the safe operation of the plant.

The plant also has a large number of procedures for contingencies and operational deviations, as well as emergency and environmental contamination procedures. The equipment used in the operation and production of cyanide is incorporated into an Asset Management Software. This program records assets and their preventive, predictive, and corrective maintenance, and generates work orders for specific areas to which maintenance belongs.

The panel controls include monitoring of variables and trend behavior; and in the field, inspection routines. In the event of a loss of chemical containment, procedure PSP-90016 called MAJOR EMERGENCY AND CIVIL PROTECTION PLAN is activated, which in sections 6.1, 6.2, 6.3, 6.4, and 6.5, address specific functions in emergencies involving cyanide.

The Operation has its own emergency brigade under the supervision of Emergency response & Security Supervisor, and an organizational chart is included in Annex 8.1 EMERGENCY BRIGADE ORGANIZATION CHART.

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The PSP-90035 Change Management Procedure. Section 6 establishes the criteria for the design

and implementation of change management, the scope (whether it is for chemicals, process technologies, equipment or instrumentation), timing, permanence, roles and responsibilities for

the implementation of the change.

CyPlus Idesa has a comprehensive procedure for managing changes. Samples of change

management were reviewed, sign a statement of awareness and inform all stakeholders.

During an interview, Maintenance Superintendent, and, Planning and Reliability Engineer, it was

verified that maintenance programs are online through the Asset Management program. This

system records maintenance of all equipment and assets in the plant.

This includes the assets for production and storage of sodium cyanide, such as tanks, pumps,

pipes, filling equipment, gantry cranes, forklifts, equipment like isocontainers and the cyanide

filling station. The program manages the maintenance of assets by generating work orders and

scheduling them annually to ensure proper follow-up.

The person in charge of the program is the Superintendent of Production.

The PSP-94400 procedure outlines the maintenance plan and section 5 specifically sets the

criteria for maintaining equipment. This includes considering manufacturer and supplier

references, the current operating status of the equipment, historical trends in maintenance, reports from predictive maintenance, and equipment availability.

A document is generated according to the maintenance frequency, which defines all maintenance

plans.

The plant carries out mandatory shutdowns for preventive maintenance. Other maintenance

activities are also carried out when the operation is stopped.

During an interview with the Instrumentation & Electrical Technical service engineer, and the

automation engineer, they demonstrated how instruments are monitored and calibrated

following standardized instructions that outline safety requirements, necessary materials and

tools, and step-by-step photographic illustrations of the procedures.

Before entering the manufacturing plant, it is mandatory to go through the Control room where

an instrument constantly calibrates each HCN detection device on site.

The operation has established a procedure for managing the water from the process building This procedure is detailed in Annex 2 of the PSP-93025 document titled "Management of Dam and Pit Levels," which was last updated on October 30, 2022.

No solution is discharged into the environment. All excess solutions are sent to the Process building or DETOX area using air pumps, after analyzing the concentrations.

There is the procedure PSP-93018, revision 2, updated on Feb 21, 2023, which establishes guidelines and activities related to the operation of the DETOX area of the CyPlus Idesa NaCN Plant.

In cases where a product falls outside specified quality standards, it is reprocessing within the processing facility in accordance with PSP-92131 Non-Conforming Product Control.

Regarding materials contaminated with cyanide, such as packaging and personal protective equipment, they undergo a washing process in the "Washing Area." as outlined in PSP-90065.

Section 6.5 of PSP-90065, titled "Transfer of Waste to Final Disposal," stipulates that the Supervisor of Safety, Hygiene, and Environmental Affairs is responsible for verifying that companies involved in waste collection, transport, and final disposal (recycling, co-processing, incineration, or confinement) hold valid and compliant permits. Additionally, they conduct site visits to companies handling hazardous and special waste to confirm the status of their permits, assess their facilities, review their work procedures, and ensure proper final disposal methods.

## 6.5.1 Transportation

For the transportation of hazardous waste, the contracted company must possess a valid authorization from the Ministry of Environment and Natural Resources (SEMARNAT) and a registration number issued by the Ministry of Communications and Transportation (SCT).

For the transportation of special waste, the contracted company must hold a valid authorization from the Ministry of the Environment (SEDEMA).

#### 6.5.2 Collection and Final Destination Center

For the temporary storage in collection centers and final disposal of hazardous waste, the contracted company must have a current authorization from SEMARNAT, and similarly, for special waste, they must possess authorization from SEDEMA.

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The filling of the big bags is carried out following procedure PSP-93016, rev. 4 dated May 30, 2022.

This procedure specifies the different methods used to ensure that each packaging is filled

uniformly and safely.

The bags have safety tests and their corresponding certification, along with the safety factor,

indicated on their inner packaging.

The cyanide big bags / wooden boxes are stored in a warehouse with cement beams and columns

and a metal roof, protected from the weather.

All boxes are labeled according to UN and warning notices in Spanish, English and German.

Standard of Practice 1.3

Inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

The operation is

✓ in full compliance with Standard of Practice 1.3

Summarize the basis for this Finding Identified:

Samples of inspection records and non-destructive tests were reviewed, which must be

conducted due to the Mexican legal framework.

The containers utilized for transportation undergo periodic inspections and are checked before

every use. In addition, they undergo leak tests.

Based on inspection records and on-site auditor observations, a 30-day frequency for inspections

is sufficient.

Additionally, the equipment undergoes hydrostatic tests at regular intervals.

All inspections are documented, identifying observations, the inspector's name, inspection date,

and any findings identified.

CyPlus Idesa documents the inspections performed on process building, and cyanide storage and

warehouse areas. The inspections indicate the date, the name of the inspector, and any deficiency

observed. Records are kept for three years.

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Principle 2 | WORKER SAFETY

Protect workers' health and safety from exposure to cyanide.

**Standard of Practice 2.1** 

Develop and implement procedures to protect facility personnel from exposure to cyanide.

The operation is

✓ in full compliance with Standard of Practice 2.1

Summarize the basis for this Finding Identified:

The PSP-90023 procedure outlines the appropriate use of personal protective equipment for the differents activities in the NaCN plant.

Section 8.3 of the procedure describes the risk analysis conducted for different areas

CyPlus Idesa has established standardized procedures and practices for the operation and maintenance of activities involving hazardous waste, equipment start-up, chemical reagent unloading, big bag filling, Detox operations, dam and pit management. Each of these procedures outlines the safety practices that must be followed, which are described at the beginning of each document.

When working in any process, including with contractors, it is essential to wear the light splash clothing. This is to provide a contrast in case of contact with cyanide. Additionally, it is necessary to wear an escape respirator for personal protection.

CyPlus Idesa has also established procedures for maintenance activities such as calibrations, preventive and planned maintenance, and inspections. These procedures are supported by work instructions that provide guidance for operation and maintenance. The auditor reviewed some of these procedures, while others were discussed in an interview with the continuous improvement engineer.

CyPlus Idesa has implemented the Work Permit procedure, which mandates that all hazardous tasks, including those in confined spaces, at heights, involving cutting/welding, or potentially hazardous atmospheres, must undergo a pre-inspection before they are authorized. Additionally, a Job Safety Analysis (JSA) is conducted. Furthermore, prior to each shift, supervisors verify the condition of equipment and systems in accordance with their shift start-up procedure.

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This safety framework is supported by the following procedures:

2. PSP-90065 Identification, Handling, and Disposal of Hazardous Waste and Special Waste

3. PSP-93001 Handling and Washing of Hazardous Waste

Inspections before shift start-ups and Job Safety Analyses for critical activities have been rigorously reviewed and upheld.

In an interview with the engineer in charge of continuous improvemen

In an interview with the engineer in charge of continuous improvement, he mentioned and

clarified the operation of washing equipment before maintenance.

Equipment washing is the previous step between normal operation and equipment delivery for

maintenance. When equipment is stopped for maintenance, it is washed to decontaminate it,

following the PSP-93021 procedure. The required personal protective equipment (PPE) is

establishedlike a water-repellent protective clothing, helmets, safety glasses, rubber boots, latex

gloves, face shield, HCN detector, and full-face escape mask.

CyPlus Idesa encourages workers to participate in the reporting of unsafe conditions and actions

by providing an online program for this purpose. It was verified that through an online program,

records are kept of suggestions and recommendations for improving operational, safety, and

emergency aspects of the plant. Therefore, it is evident that CyPlus Idesa provides the time and

resources for workers to participate in the program. The company also recognizes and reinforces

those who participate in the program and provide suggestions.

CyPlus Idesa evaluates the KAIZEN system annually and monthly with the participation of workers

to implement improvements in work practices and procedures. Several improvements

implemented by workers were identified, such as the purchase of a retractable harness system and the proposal to facilitate the assignment of personal protective equipment for example.

Similarly, the operations department and the logistics department have implemented the KAIZEN

system. The KAIZEN system is based on a tracking system that shows the name of the person who

proposes the idea, the proposed idea, the impact of the idea, and the area of impact.

CyPlus Idesa has identified the entire manufacturing plant infrastructure, including the

warehouse and filling area, as a place where there is a risk of exposure. Therefore, automatic

fixed monitors are installed on all levels of the plant building, warehouse, and any areas where

cyanide is present. Personnel are required to wear personal protective equipment.

CyPlus Idesa uses automatic monitoring devices with audible alarm throughout the process plant

to monitor to confirm that controls are adequate to limit worker exposure to hydrogen cyanide gas and/or cyanide dust exceeding 10 parts per million (ppm) on an instantaneous basis or 4.7

parts per million continuously over an 8-hour period, as cyanide.

Collaborators also have access to portable monitoring instruments that are kept in the control

room. Before assigning a portable instrument to a worker, a test is conducted to verify its

functionality.

When the level of hydrogen cyanide (HCN) reaches 3 ppm, a pre-alarm signal is displayed on the

panel. When it reaches 10 ppm, it triggers the evacuation of the site and the emergency response

plan outlined in Procedure PSP-90016 Major Emergency and Civil Protection Plan and PSP-90079

Crisis Management and Communication.

In places where workers congregate, including offices, plants and warehouses, there are alarm

devices and light signals that are activated in the event of emergency situations, including the

presence of cyanide.

Cyanide monitoring equipment is calibrated as recommended by the manufacturer. The auditor

verified the calibration records of these instruments and witnessed the tests carried out at the

control room.

The CyPlus Idesa operation takes provisions for every worker to have immediate assistance in

case of an emergency through expedited communication or buddy system.

The auditor observed every collaborator in visual contact with each other.

CyPlus Idesa conducts health evaluations of workers before admission and provides periodic

medical follow-up, including blood tests, hearing tests, spirometry tests, and stress tests.

The ESH&Q Superintendent and medical doctor, was interviewed. She corroborated the

information by showing the medical follow-up program.

CyPlus Idesa implements procedures to assess the health of employees when they are hired and

periodically thereafter to ensure their fitness for work. Procedure PSP-90013, titled "Medical

Examinations: Admission, Periodic, Special, and Consultations," covers spirometry tests (a painless

study of lung volume and airflow) as well as qualitative fit tests for FT-10 respirators.

In addition, the LSP-90002 Safety, Hygiene, and Environmental Guidelines, under section 5.3,

"General Standards and Provisions," subsection j), explicitly prohibits the use of beards.

Personnel working in areas with potential contamination risk wear light spill clothing made up of

two Nomex top jackets and pants.

A sanitized changing room has been implemented where workers and contractors who enter with

their personal clothes store them until the end of the shift (white area). There they put on clean

and disinfected uniforms before entering areas with potential contamination.

Upon returning from the work areas, the workers enter a changing room where they remove the

potentially contaminated clothing (Black area), put them in bags, and deliver them to the laundry.

They then proceed to take a shower for decontamination.

The laundry facility consists of two machines: one for detoxification and rinsing of protective

clothing, and another for washing.

The auditor noted the presence of adequate signage in the process plant and warehouse area.

The workers are provided with training, and signs are posted throughout the facility to indicate

that eating, smoking, drinking, and open flames are prohibited in areas where there is potential

for contamination.

In procedure LSP-90002, section 6.3 b) smoking and eating food are prohibited in the operational

and storage areas.

The auditor attended safety training sessions that are similar to those provided to new workers

and held periodically. During the training, the prohibition against eating, smoking, drinking, and

open flames in areas with the potential for contamination was emphasized.

Standard of Practice 2.2

Develop and implement plans and procedures for rapid and effective response to cyanide

exposure.

The operation is

✓ in full compliance with Standard of Practice 2.2

Summarize the basis for this Finding Identified:

CyPlus Idesa has developed a specific written emergency response plan to respond to cyanide

exposures. The plan outlines the necessary actions to take in such a situation. Additionally, signs

are posted throughout the plant indicating the steps to follow in case of exposure to sodium

cyanide.

Guidelines for medical care during the emergency response procedure are also available through

PSP-90000, Medical Care for Intoxication or Work Accident.

If a worker suffers a disabling injury due to a physical or chemical agent, they will be promptly

sent to their designated medical unit for medical attention and follow-up. The necessary first aid

will be provided during their time at the plant and during transfer to the medical unit, which will

be arranged by the CyPlus Idesa ambulance. Whenever possible, the worker's identification sheet

from their medical file should be given to the ambulance operator or higher-ranking health

professional for delivery to the receiving hospital's emergency department.

CyPlus Idesa has an on-site clinic with qualified staff available.

CyPlus Idesa has installed shower stations and eye wash stations in various areas including

operational areas, laboratories, warehouses, among others.

The shower and eyewash drawing indicates the locations of the showers and eyewashes

associated with geographic coordinates and plant elevations.

CyPlus Idesa tests showers and eyewashes monthly.

The technical data sheet for the eyewash specifies a flow rate of 12.1 liters per minute (3.2 gallons

per minute). It's important to note that our water pressure for showers falls within the range of 4

to 4.5 bar, as outlined in the agreement of the Filtered Water/Service Water supplier.

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The relevant procedures related to this compliance are as follows:

A comprehensive review of inspection records for the years 2021 and 2022 was conducted.

The low-pressure and flow tests for the eye wash stations were conducted at both level zero and level five (representing low and high levels within the Process Facility) starting from August 24, 2023. These tests will be carried out periodically, with weekly activation and annual inspections, in accordance with ANSI Z 358.1 (Section 5.5.2 and 5.5.5). The results are as follows:

During a 15-minute pressure test at level zero, a pressure of 5.5 Bar (79.7 PSI) was achieved, while at level five, a pressure of 3 Bar (43 PSI) was recorded. The level five setting was used for the flow rate test, which produced a flow rate of 11.4 l/min (3.0 gallons per minute). These results demonstrate compliance with ANSI Z358.1 standards.

In Annex 8.3 of procedure PSP-90016, the location drawing of security systems (meeting points, fire network, hydrants, extinguishers, showers and eye wash stations, alarms, detectors) is identified.

By implementing the equipment inspection and testing procedure, PSP-90018, Review and testing of emergency equipment systems, the maximum periods, and activities for inspecting emergency equipment are established to ensure their good physical condition and functioning. This procedure applies to all emergency equipment used, including fire detectors and manual stations, hydrants and hose cabinets, sectional valves, self-contained breathing apparatus, emergency ladders, fire extinguishers, spill kits, rescue equipment, firefighter suits, oxygen system, ambulance, and medical equipment.

The most recent record from February 7, 2023, was reviewed, which documented the inspection of the self-contained breathing apparatus and leak-sealing cushion. These items were also inspected during the audit in the control room.

There are dry chemical powder extinguishers by each of the accesses to the storage units, protected and marked in red boxes.

During an inspection of the CyPlus Idesa clinic services, it was observed that oxygen, resuscitator, and antidotes with valid expiration dates were stored in a protected location with the appropriate temperature as indicated by the manufacturer. The ESHQ Superintendent., provided information on medical records and laboratory tests performed on workers.

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Similarly, the CyPlus Idesa ambulance is equipped with oxygen, SCBA equipment, and adequate means for transportation. Direct communication channels with risk areas are available to respond to emergencies quickly.

CyPlus Idesa has established a radio communication plan for both internal and external communication with neighboring petrochemical plants and companies, with whom they have a mutual aid agreement in case of an emergency. These parties are also trained in the risks associated with responding to cyanide emergencies.

The operation has also installed multiple megaphones and light alarms in strategic locations throughout the plant to alert workers in case of an emergency. The PSP 90016 procedure, which outlines the plan for major emergencies and civil protection, describes the available communication methods.

CyPlus Idesa has implemented the PSP-90018 procedure, Review and testing of emergency equipment systems "Revisión y pruebas de sistemas de equipos de emergencias", which aims to ensure that all emergency equipment is regularly inspected and tested to maintain its good physical condition and functionality. This procedure establishes maximum periods and activities for the review of emergency equipment, including the oxygen system, ambulance, antidotes stored properly based on the manufacturer's instructions, and other medical equipment. It is applicable to all equipment used for emergency situations, and its main goal is to guarantee that they are in good working order and are readily available during an emergency.

Section 6, Table 1 specifies the revision frequency and type of tests for fire protection equipment, self-contained breathing apparatus, rescue equipment, firefighting suits, oxygen system, and medical equipment (including defibrillator and electrocardiograph monitor).

During the inspection, first aid equipment inspection reports were carefully reviewed using a checklist provided by the ESHQ Superintendent.

CyPlus Idesa complies with the communication requirements for chemical hazards established in the Mexican standard NOM-018-STPS-2015, Harmonized system for the identification and communication of hazards and risks posed by hazardous chemicals in the workplace. This standard requires employers to permanently make safety data sheets available for employees to consult in areas where hazardous chemicals are handled.

CyPlus Idesa has identified the contents and flow directions of all process tanks, and in some systems, the function of the tanks has been identified as well.

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For Operational staff (Production, Maintenance by Administration, Logistics, Laboratory,

**Coordinators)** 

The lockers located on the ground floor of the control room will be used following these

instructions:

a. At the beginning of their shift, personnel must go to the white area to store their belongings

and change into work clothes.

b. They must place their things in the lockers.

After leaving the process building, personnel must immediately decontaminate their footwear

and gloves. They must then proceed to the Black Area where they remove their work uniforms,

take a shower, and deliver their clothes to the laundry. Afterwards, workers enter the White Area

to change back into their usual clothes.

The operation has an on-site clinic with qualified staff available 24/7.. In the event of an

emergency, the on-site medical team and factory emergency response brigades are available to

respond. Emergency response training provided by Emergency & Security Supervisor was verified.

CyPlus Idesa has developed the PSP-90000 procedure, Medical Care for Poisoning and

Occupational Accidents, which describes the immediate medical attention to minimize the health

damage of external and internal personnel who may be affected by an accident involving

exposure to physical and chemical agents, including hydrogen cyanide (HCN) and sodium cyanide.

CyPlus Idesa has an on-site ambulance available 24/7 to attend to and transport intoxicated or

exposed personnel.

An agreement has been made with the private hospital, and the personnel at this facility have

been trained by the ESHQ Superintendent

In the last three years since the last recertification, there have been no significant incidents

related to cyanide.

**Principle 3 | MONITORING** 

Ensure that process controls are protective of the environment.

**Standard of Practice 3.1** 

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 Standard of Practice 3.1

Summarize the basis for this Finding Identified:

CyPlus Idesa does not discharge potentially contaminated water into surface water.

, the solutions are transported to the DETOX area and then, to the Supplier's Waste Water Treatment Plant (PTAR) under formar agreement CyPlus Idesa ensures that its discharge from DETOX to the PTAR is maintained at 1 ppm (programmed in the online analyzer's PLC). If the concentration reaches 1 ppm of free cyanide, the solution is recirculated within DETOX for a secondary treatment with hydrogen peroxide. Furthermore, the supplier conducts studies and monitoring that analyze Total Cyanides (mg/L), resulting in concentrations lower than 0.02 mg/L. For the treatment of effluents, the following procedure is applied:

1. PSP-93018 DETOX

CyPlus Idesa implements monitoring underground wells via a third party laboratory.

The laboratory is accredited according to EMA No. AG-016-008/12. Update Date: 2022-04-06.

The calibration dates of the testing equipment and the chain of custody of the samples were also reviewed and found to be in compliance.

In section 6.7 of PSP-93025 (Rev.03), the process for analyzing wells/groundwater is outlined as a monitoring measure.

The applicable procedure for groundwater-related matters is:

1. PSP-93025 Management of Dikes and Pits

Five results from the December 2022 Well Study were reviewed.

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CyPlus Idesa does not discharge to surface waters or drains that could be negatively affected by

the operation.

The CyPlus Idesa production plant does not carry out indirect discharges into surface waters.

There is no beneficial use of groundwater in the vicinity of the operation or downstream.

There has been no record of any leakage or impact on groundwater. Moreover, the company has

not been required to undertake any environmental repair or mitigation activities.

CyPlus Idesa monitors the risks of hydrogen cyanide gas and cyanide dust emissions during the

sodium cyanide manufacturing process. Fixed monitoring devices are installed on all floors of the

processing building, in the warehouse, and in areas where potential health risks to workers exist.

During the auditor's inspection, all identified instruments were fully operational. Additionally,

personnel assigned to specific tasks use portable cyanide detection instruments.

An interview with the Safety & Environmental Supervisor showed monitoring records that

confirmed compliance with regulations.

The operation is governed by the NOM-010- STPS-2014 standard: where cyanide is applied in the

standard.

https://www.gob.mx/cms/uploads/attachment/file/680155/NOM-010-STPS-2014.pdf

There are no discharges to surface waters.

In cases where solutions are generated from washing uniforms or laboratory equipment, or from solutions collected in the submarine tank or collection box, they are continuously manitored by

solutions collected in the submarine tank or collection box, they are continuously monitored by

automatic chemical analysis units before being sent to the detoxification units.

Based on the information provided, it is concluded that both the frequency of monitoring of

surface and groundwater is adequate.

Principle 4 | TRAINING

Train workers and emergency response personnel to manage cyanide in a safe and

environmentally protective manner.

Standard of Practice 4.1

Train employees to operate the facility in a manner that minimizes the potential for cyanide

exposures and releases.

The operation is

✓ in full compliance with Standard of Practice 4.1

Summarize the basis for this Finding Identified:

CyPlus Idesa has a training plan and matrix generated for each area. The personnel from the occupational safety, environmental, and emergency response areas determine the topics to be

covered, which includes cyanide risks.

Initially, there is an initial induction that includes various topics, including cyanide risks,

environment, and emergency response.

The training matrix for 2021, 2022, and 2023 was verified, and the records are organized by the

employee's name, associated with the specific training attended and the number of hours.

During the audit, the auditor observed worker induction taking place over two days (16 hours).

As part of the induction, each worker is provided with a Safety Manual, which they sign upon

receiving. The manual covers both safety and environmental aspects.

The Emergency & Security Supervisor who is also a firefighter, conducts joint training sessions

with the security personnel, including external clients, transporters, and mines.

CyPlus Idesa has procedures for protective equipment in manuals and procedures. During the

audit, it was observed that in all operational processes carried out by workers, they use their

personal protective equipment and devices for emergency escape properly.

The auditor complied with all requirements demanded by CyPlus Idesa regarding the use of

personal protective equipment, according to the document dated 28/09/2022, rev. 7.

CyPlus Idesa has a training plan that includes various aspects of operational safety, occupational

safety, and emergency response.

Personnel from operations and the warehouse were interviewed, and it was confirmed that they

 $provide\ training\ related\ to\ production\ tasks, as\ well\ as\ prompt\ response\ in\ the\ event\ of\ unplanned$ 

discharges. Periodic evaluations of workers were reviewed to determine the level of effectiveness

of the training provided, as part of ongoing education.

The warehouse personnel have valid forklift licenses and equipment with valid inspection

certificates. Adequate security measures were also observed during the forklift operation,

specifically in securing the loading area, as boxes were being loaded onto a trailer.

When a new employee joins the operation, they receive an initial induction that covers various

topics, including cyanide risks, environment, and emergency response. The auditor received a

similar induction to that provided to new employees and contractors.

An annual and biannual refresher training is conducted. Mexican regulations are used, which

require different time periods, for example, refresher training on hazardous materials is

conducted annually.

Each trained employee undergoes performance evaluations. The auditor reviewed the question

content and reviewed some exams, finding that the syllabus and difficulty meet the pedagogical

needs of worker training.

Each area has different training topics tailored to their specific needs. During the audit, the

Continous Improvement Engineer and the Human Resources Head were interviewed, and they

provided electronic and physical records of the training attended and the evaluations conducted.

There are training rooms with adequate audiovisual equipment

Each instructor has experience, and a performance evaluation is conducted annually for their

position.

Each training session is evaluated, and supervisors assess the performance of workers. The

auditor interviewed the personnel responsible for evaluating workers at the control room.

Standard of Practice 4.2

Train employees to respond to cyanide exposures and releases.

The operation is

✓ in full compliance with Standard of Practice 4.2

Summarize the basis for this Finding Identified:

CyPlus Idesa requires its workers to be trained in emergency management, in accordance with PSP-90016: Major Emergency and Civil Protection Plan. The 2023 training matrix identifies training contents for leak and spill control (8 hours) and first aid (5 hours). The auditor verified the training records for first aid on February 13, 14, 15, 2023, and September 5, 2022.

The training for cyanide exposure procedures is conducted by the medical services staff, led by the ESHQ Superintendent.

Samples of training records on cyanide handling and exposure risks were reviewed in the Human Resources office.

Training on cyanide exposure procedures is conducted by medical services personnel. The training is carried out according to the training matrix.

The Local Mutual Aid Committee "Comité Local de Ayuda Mutua" (CLAM, Spanish acronym) training is conducted by the Emergency & Security Supervisor. If personnel from other locations respond to the plant, the Incident Command System is activated.

A training record is kept throughout the employee's working life. According to the head of human resources, she is the custodian of the records.

Training records from 2015 were verified, and random records from 2022 and 2023 were reviewed.

During the audit, the auditor verified records in the Human Resources department containing information such as the names of instructor employees, event dates, and the topics covered during safety talks.

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During an interview in the production control room, electronic examples of evaluations for

categories of production operators were observed. These evaluations are used in cases of

operator certification or other roles that require proven competencies.

The entire process is detailed in PSP-92026 Training Management and Administration.

Additionally, in the Human Resources procedure PSP-96200, the requirements for the complete

closure of training records are addressed.

Samples of competency certifications for three forklift operators were reviewed, and operational

observations were conducted in the warehouse.

Principle 5 | EMERGENCY RESPONSE

Protect communities and the environment through the development of emergency response

strategies and capabilities.

Standard of Practice 5.1

Prepare detailed emergency response plans for potential cyanide releases.

The operation is

✓ in full compliance with Standard of Practice 5.1

Summarize the basis for this Finding Identified:

CyPlus Idesa has developed procedure PSP-90016, Major Emergencies and Civil Protection, to

minimize the negative effects on people, the environment, communities, the company's assets,

and its reputation.

Point 6.1 of this procedure outlines the specific functions involved in a solid or liquid cyanide leak.

The plan identifies the necessary protective equipment, emergency response procedures,

personnel organization, and relevant notifications.

CyPlus has also developed the PSP-90025 procedure, Leak and Spill Control. The purpose of this

procedure is to effectively control, contain, recover, confine, and dispose of any leak or spill that

may cause an emergency in any area of CyPlus Idesa, including cyanide leaks.

In Mexico, the General Law on Civil Protection (Federal), the Civil Protection Law, and NOM-002-

STPS-2015 are the governing laws related to civil protection.

DISPOSAL OF WASTE. Waste must be decontaminated in the washing area according to the

corresponding procedure and disposed of according to the PSP-90065 procedure for

Identification, handling, and disposal of hazardous waste and special management waste.

Possible emergency situations are classified into three codes:

**EMERGENCY CODE 1 - CLAM** 

This type of emergency only affects one company and does not affect its neighbors. It can be

resolved using the company's own resources and does not require support from other companies.

**EMERGENCY CODE 2 - CLAM** 

This type of emergency exceeds the response capacity of the affected company or may spread to

other workplaces. Controlling the situation requires the support of the first or second level of

assistance from CLAM member companies.

**EMERGENCY CODE 3 - CLAM** 

This type of emergency exceeds the response capacity of the affected company, and its effects

go beyond its perimeters, affecting the community. Controlling the situation requires the

assistance of all CLAM member companies and the local Civil Protection authorities.

The PSP-90016 procedure in section 6.1 establishes guidelines that the organization must follow

to ensure that emergency response and control are adequate and timely. The goal is to control

and minimize the negative impact on people, the environment, the community, the company's

assets, and its reputation.

The procedure PSP-90016, Major Emergencies and Civil Protection, in section 6.1, specifies the

specific functions that involve a solid or liquid cyanide spill. The plan identifies the protection

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equipment and emergency response, organization of personnel, relevant notifications, containment methods and materials, and cleaning for liquid and solid spills.

The PSP-90016 plan, Major Emergencies and Civil Protection, in section 6.1 identifies firefighting measures.

The procedure for electrical failure shutdown PSP-93030 defines the necessary actions to safely activate the plant's standby mode. Section 6.1 outlines the specific steps that need to be taken.

In case of a power outage and activation of the emergency generator, it is crucial to restore all the equipment that is connected to the Emergency Electric Generator. These equipment items are listed in section 7, table 1, which specifically includes the motors that are linked to the emergency electric supply system.

These devices must be started by the field production operator, after the control room production operator sends the necessary permits for their start-up.

The PSP-90016 plan, revision 7, Major Emergencies and Civil Protection, in section 5, describes the actions of alerting CyPlus Idesa personnel and activating the evacuation brigade. The evacuation brigade ensures that all personnel not involved in the emergency plan proceed to the designated meeting point via the evacuation route.

During the plant visit, the auditor verified that the evacuation routes and meeting points were properly marked and there is coordination with the neighboring industrial community, forming a Local Mutual Aid Committee "Comité Local de Ayuda Mutua (CLAM)" in case of emergencies.

The document PSP-90000 provides a sequential description and illustration of how to administer first aid for cyanide exposure. It covers the use of a cyanide antidote and oxygen if required. The document also includes a comprehensive explanation of the symptoms of cyanide poisoning based on the individual's level of consciousness.

In accordance with section 6.9 regarding environmental emergencies, the Supervisor in charge of the worker or area where a spill or leakage accident occurs must adhere to Procedure PSP-92130 for Corrective Actions in Accident and Incident Investigations. They are required to fill out the corresponding Preliminary Accident-Incident Report form and submit the copies as specified in the procedure.

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The procedure should be applied to identify the root cause of the leak, provide recommendations,

and follow up on the matter.

Standard of Practice 5.2

Involve site personnel and stakeholders in the planning process.

The operation is

✓ in full compliance with Standard of Practice 5.2

Summarize the basis for this Finding Identified:

CyPlus Idesa has established internal emergency brigades. In Section 8.1, the organizational structure of the emergency brigade is outlined, including the coordination of the crisis committee, a brigade commander, a medical response team consisting of a doctor, paramedic, nurse, and laboratory technician, as well as a multifunctional support brigade (fire, leaks/spills, rescue, first

aid) with brigade leaders and personnel responsible for specific areas.

The operation is located in a petrochemical zone, surrounded by an industrial community that has formed a Local Mutual Aid Committee "Comité Local de Ayuda Mutua (CLAM)". This committee meets once a month and is comprised of safety personnel responsible for addressing any situation that may cause partial or total disruption to a system, typically caused by the potential occurrence of an undesired event that could endanger the physical integrity of

personnel, the ecological environment, facilities, and the community.

CLAM issues regular reports and, depending on risk circumstances, hurricane warnings and other natural threats. Additionally, it actively supports the community, particularly schools in areas

influenced by industries, with a positive outlook for assistance.

There is a program in the Plan called "cross-visits," which takes place annually between neighboring companies in the industrial park. Training sessions are also provided to the safety officer, firefighters, and civil protection personnel. CLAM members hold regular meetings to update the projection of their accident prevention and pollution control programs, as well as their

support plans for neighboring communities.

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The operation has identified the industrial community surrounding the Project who would have

roles in an emergency alongside civil protection. The Major Emergencies and Civil Protection Plan

includes the telephone numbers of the companies associated with CLAM and the local authorities

in Annex 8.5, the Emergency Directory.

Monthly meetings are held with CLAM members, and subcommittees for environment, physical

security, clinic, and emergency response are organized. During these meetings, critical substances

handled in the areas, medical issues, and training sessions are discussed.

Standard of Practice 5.3

Designate appropriate personnel and commit necessary equipment and resources for emergency

response.

The operation is

✓ in full compliance with Standard of Practice 5.3

Summarize the basis for this Finding Identified:

According to the Emergency procedure for the Elderly and Civil Protection, PSP-90016, the

coordination is as indicated:

**BRIGADE COMMANDER** 

The Brigade Commander role is assigned to the Emergency and Asset Security Services Supervisor.

In their absence, the Coordinator of Emergency and Asset Security Services will assume this role.

Their responsibilities include:

- Coordinating the implementation of the Major Emergencies and Civil Protection Plan.

- Guiding the brigade and not being assigned to a specific location.

- Ensuring the team's safety.

- Approving the plan for returning to normal conditions after an emergency.

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- Authorizing the request for assistance from CLAM in a situation that involves partial or

total disruption to a system. This is usually caused by the possibility of an actual undesirable event occurring, which may endanger the physical integrity of personnel, the

ecological environment, facilities, and the community, in accordance with the code.

There is also a Multifunctional Fire Brigade composed of operators and operating assistants on

duty.

The personnel attending the emergency will determine the type of protection required based on

the needs and inherent risks of the activities, as well as the body part that needs to be protected.

In case of doubt or uncertainty about the level of exposure or contamination that the worker may

face, it is necessary to use personal protective equipment (PPE) offering maximum protection.

When the alarm system is activated or an emergency is declared, personnel should report to the

Brigade Commander to receive instructions. Personal protective equipment for emergency

response must be in good condition, readily available at all times, and undergo periodic

inspections in accordance with the PSP 90018 - Emergency Systems and Equipment Review and

Testing. They should also be properly prepared to administer first aid at the scene.

The Major Emergency and Civil Protection plan outlines the internal personnel structure, which

includes the Incident Commander, who also serves as the Emergency Response Supervisor.

The emergency response team consists of a nurse, paramedic, and doctor who work in rotating

shifts.

Furthermore, there are organized brigades responsible for emergency response in cases of spills,

fires, and poisoning.

The personnel responsible for emergency response, particularly the brigades, have multiple levels

of training.

In addition to the above, the brigade commander should also receive training in Emergency

Vehicle Operations, Incident Command, and Crisis Management.

Training records were reviewed, and three random samples of training were collected:

Search and rescue training: 19 individuals in February 2023.

Theoretical and practical knowledge of firefighting and fire prevention techniques: 12

individuals in July 2022.

Leak and spill control training: 11 individuals on October 18, 2021.

The trainings that involve fire control, confined spaces, and height rescue practices are conducted at facilities specially designed by the Local Mutual Aid Committee (COMITÉ LOCAL DE AYUDA MUTUA), which serves the members of CLAM. Their website can be found at

https://www.clamcoatzacoalcos.com/

In the Major Emergency and Civil Protection Plan, Annex 8.5 includes the directory of names of internal personnel responsible for emergencies, as well as external support agencies and internal

resources.

The Major Emergency and Civil Protection Plan specifies the responsibilities of response personnel in Section 5.1. It includes specific responsibilities for the plant manager, ESHQ Superintendent, brigade commander, combat brigade (multifunctional), evacuation brigade,

security guard, crisis committee, and incident command system.

According to procedure PSP-90018, revision 2, dated September 2, 2022, the frequency of inspection and type of testing is established based on the manufacturer's manual. However, it is not limited to that, as critical equipment such as self-contained breathing apparatus is inspected daily and for each shift to ensure they are clean and accessible. Additionally, a monthly inspection

is conducted during the first three days of each month.

CyPlus Idesa has established its inspection program in accordance with the Mexican standard NOM-002-STPS-2010: Reference Guide VI, Table VI.1 Frequency of Inspection and Type of Tests.

https://dof.gob.mx/normasOficiales/4228/stps/stps.htm

The auditor reviewed all the monthly records for the year 2022, as well as other random records, and found them to be consistent with the requirements during the inspection.

According to procedure PSP-900016 rev. 7, dated January 16, 2023, there is a communication flowchart for emergency situations.

In section 5.1 Policies, the responsibilities of each entity with roles in an emergency are detailed. Other team members include the Plant Manager, Finance and Administration Manager, Technical Process Manager, ESH&Q Superintendent, Production Superintendent, Maintenance Superintendent, and Spokesperson. The Spokesperson should be a person who, due to their

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position within the organization, has access to all legal aspects, can express themselves

appropriately in public, with authorities, media, and stakeholders, and can maintain a positive

image of the company during the crisis.

According to the Emergency & Security Supervisor, there is full involvement of all personnel who

would need to respond to an emergency. Regular meetings are held at CLAM (Local Mutual Aid

Committee) to discuss and address emergency scenarios. CyPlus Idesa conducts awareness meetings to inform employees about potential scenarios that may occur. Training is provided to

CLAM members, and drills and simulations are conducted in designated areas for this purpose.

The emergency response plan is distributed among CyPlus Idesa employees.

Standard of Practice 5.4

Develop procedures for internal and external emergency notification and reporting.

The operation is

✓ in full compliance with Standard of Practice 5.4

Summarize the basis for this Finding Identified:

In procedure PSP 90079, Crisis Management and Communication, guidelines are described for

the clear, reliable, and timely handling and communication of real or potential crisis situations

that pose a risk to the reputation and value of CyPlus Idesa or its shareholders.

The Brigade Commander notifies the ESH&Q Superintendent about the incident or crisis situation,

and the ESH&Q Superintendent informs the Crisis Committee members. These committee members must always be available via radio and/or telephone, as outlined in procedure PSP-

90016 for Major Emergencies and Civil Protection.

The responsible person from the area where the crisis or incident occurred generates the

preliminary incident report (local format) and sends it to the Crisis Committee for analysis.

In the PSP-90079, section 6.2, there is a notification to the Cyanide Management Institute (ICMI).

During the last three years, there have been no significant incidents involving cyanide.

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CyPlus Idesa maintains a contact phone table in accordance with the PSP-90016 Emergency Plan

for Major Emergencies and Civil Protection, Annex 8.5 EMERGENCY DIRECTORY.

In Section 6 of the CLAM Major Emergency Response Plan: Community and Media Relations,

instructions for communicating with the media are included.

Contacts for local media will be included in the Emergency Response Plan.

In document PSP-90079 of the Incident and Accident Procedure PR-SIG-09 for a Significant

Incident with Cyanide to the ICMI, it will proceed as follows:

Notification of a Significant Cyanide Incident in any of a signatory's operations that fall within the scope of the Cyanide Code and that are included in Part II of their signatory request must be provided to ICMI within 24 hours following its occurrence. It must include the date and nature of the incident, as well as the name and contact information of a company representative to respond

to requests for additional information. Further relevant information, such as root cause, health,

safety and environmental effects, and any mitigation or remediation carried out is requested

within seven days of the incident.

• Notification must be submitted in writing by email or fax to ICMI at info@cyanidecode.org and

+ 1-202-835-0155.

• It is recommended to still notify ICMI even if there is any doubt as to whether the incident meets

the ICMI criteria for a significant cyanide incident.

**Standard of Practice 5.5** 

Incorporate remediation measures and monitoring elements into response plans and account for

the additional hazards of using cyanide treatment chemicals.

The operation is

✓ in full compliance with Standard of Practice 5.5

Summarize the basis for this Finding Identified:

Section 6.6 "Recovery" of PSP-90025 states that once the material is contained and the source of

the leak or spill is controlled, the material will be recovered in coordination with the personnel

from the HSE&Q department, assisted by personnel from other necessary departments, using

appropriate containers.

Absorbent materials acquire the characteristics of what they absorb, so the recovered material

must be allocated to the temporary storage area for hazardous waste, in accordance with PSP-

90065 "Identification, Handling, and Disposal of Hazardous Waste and Special Handling Waste."

The material will undergo further processing, treatment, or final disposal according to the General

Law for the Prevention and Comprehensive Management of Waste (LGPGIR) and its regulations.

PSP-90065 "Identification, Handling, and Disposal of Hazardous Waste and Special Handling

Waste" procedure, section 6.2, establishes a step-by-step process for handling hazardous waste.

Section 6.7 of PSP 90025 CONTROL OF MAJOR LEAKS AND SPILLS establishes the means of

handling contaminated soils.

Section 6.8 of the PSP-90025 procedure, "Control of Major Leaks and Spills," describes the actions

for decontamination.

Section 6.6 of the PSP 90025, "Control of Major Leaks and Spills," describes the actions for the

recovery of waste resulting from a spill. Once the material is contained and the source of the leak

or spill is controlled, the material will be recovered in coordination with the personnel from the

ESH&Q department, assisted by personnel from other necessary departments, using appropriate

containers.

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Since absorbent materials acquire the characteristics of what they have absorbed, the recovered

material must be directed to the temporary hazardous waste storage facility, in accordance with

the PSP-90065 procedure for the Identification, Management, and Disposal of Hazardous Waste

and Special Management Waste. The material will undergo further processing, treatment, or final

disposal in accordance with the General Law for the Prevention and Comprehensive Management

of Waste (LGPGIR) and its Regulations.

https://www.gob.mx/cms/uploads/attachment/file/131748/23. LEY GENERAL PARA LA PREV

ENCI N Y GESTI N INTEGRAL DE LOS RESIDUOS.pdf

In the event of a spill, the provision of drinking water would not be affected as the plant personnel

obtain their drinking water supply from bottled water containers.

There are no surface waters in the vicinity of the operation.

In section 6.1 of the PSP-90016, it indicates that the application of Sodium Hypochlorite, Ferrous

Sulfate, Hydrogen Peroxide should not be used to treat a cyanide spill once it has entered surface

water.

A report on Integrated Stormwater Management "Manejo Integral de Aguas Pluviales" (states

that specific rainfall intensity information for this project was requested from the National

Meteorological Service for a return period of 10 years and different storm durations.

The concentrated information can be found in a Table . Additionally, calculations were performed

considering a return period of 100 years and a storm duration of 30 minutes.

The study considers runoff coefficients, contributing areas, water velocity within conduits, flow

rates, conduit sizing, and construction cleaning (which, according to the auditor's discretion,

should be performed periodically, especially in canal segments where cyclone wire fences are

present).

According to the design considerations, the canal system is capable of controlling the maximum

rainfall recorded in the plant's surface area without causing flooding or conflicting with the plant's

spill collector system.

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CyPlus Idesa does not have water discharges because it has collection tanks, known as detox

tanks, which lower the cyanide concentration to permissible limits accepted by the Supplier's waste water treatment plant. As part of its commitment to good environmental practices, CyPlus

Idesa conducts monitoring of underground wells that are 20 meters deep.

The tests in the wells are conducted during the months of highest precipitation, namely October

and November. The water characterization records were reviewed based on specific parameters

and sampling and analysis methods referenced in national regulations. During the review of the

five tests for cyanide, the results were non-detectable, meaning less than 0.03 mg/m<sup>3</sup>.

Standard of Practice 5.6

Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is

✓ in full compliance with Standard of Practice 5.6

Summarize the basis for this Finding Identified:

CyPlus Idesa reviews its emergency plan annually as required by section 5.1 of the MAJOR

EMERGENCY AND CIVIL PROTECTION PLAN.

According to procedure PSP-90017, STANDARD FOR DEVELOPMENT AND FOLLOW-UP OF DRILLS,

the implementation of drills is mandatory. In 2021, a total of seven drills were conducted. One

specific drill was reviewed, resulting in four lessons learned. CyPlus maintains a record of

improvement actions identified during drills for monitoring and enhancement purposes. The

auditor examined the progress made on some of the actions identified from the drill, including

the submission of follow-up action records, the 2023 drill plan, and the drill records from 2021,

2022, and 2023.

The structure and content of the drill conducted on July 20, 2022, were also assessed.

Additionally, in compliance with the Mexican standard 002-STPS-2010 on Safety Conditions and

Fire Prevention in the Workplace, it is required to conduct two drills for high-risk sites.

The emergency response plan, as stated in section 5.1, specifies that the plan must be kept up to date with an annual review, after each drill, and after accident/incident analysis.

The latest revision of the Major Emergency and Civil Protection Plan was conducted on January 16, 2023.

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

Name of Facility

Signature of Lead Auditor Page 39 of 39 June 21<sup>st</sup>, 2023 Submittal Date JUNE 2021