

CYPLUS IDESA
COATZACOALCOS
SODIUM CYANIDE PRODUCTION FACILITY

SUMMARY AUDIT REPORT
FOR THE
INTERNATIONAL CYANIDE MANAGEMENT CODE

SEPTEMBER 2026



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Operation General Information

Name of the production operation: CyPlus Idesa, S.A.P.I. de C.V.
Name of the facility owner: CyPlus Idesa, S.A.P.I. de C.V.
Name of the facility operator: Sudamerica Comercial S.A.
Name of Responsible Manager: Alejandra Grajales - SHMA Superintendent

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Operation Location Detail and Description

CyPlus Idesa S.A.P.I. de C.V. operates a sodium cyanide production facility in Coatzacoalcos, Veracruz, with a production capacity of 40,000 metric tons annually. The manufacturing plant is located at Boulevard Morelos Km 4.2, Parque Industrial Petroquímico Morelos, C.P. 96400, Coatzacoalcos, Veracruz, Mexico. This state-of-the-art plant utilizes advanced cyanide production technologies specifically designed for high efficiency and safety. CyPlus Idesa, S.A.P.I. de C.V. (hereinafter CyPlus Idesa) is a Joint Venture founded in 2013 between Grupo Idesa, Mexico, and Röhm GmbH Group, Germany

The joint venture benefits from the combined expertise of its founding companies. Evonik brings decades of experience in sodium cyanide technology, as well as integrated management systems for environmental stewardship, health, safety, and quality control. Grupo Idesa contributes robust operational systems, a skilled workforce, infrastructure capabilities, and deep knowledge of the regional market. Together, they produce solid sodium cyanide primarily intended for use in the precious metals mining sector.

The facility manufactures sodium cyanide briquettes from HCN gas provided by an Andrussov reactor. The HCN is not stored on-site; instead, it is directly fed to react with 50% NaOH caustic soda. All storage in the facility is in the form of a 30% sodium cyanide solution by weight. The final product, solid sodium cyanide briquettes, is packaged in two ways: Intermediate Bulk Container (IBC) super sacks (big bags) with a capacity of one ton, stored in wooden boxes, and ISO containers that can hold up to 16 tons of product via its Solid-to-Liquid System (SLS). CyPlus Idesa holds the distinction of being Mexico's first—and currently only—manufacturer of sodium cyanide. The company also stands out for its customer-focused safety measures, providing comprehensive training on safety protocols, emergency response procedures, and toxicological risks. This training is delivered by a medical professional trained in Germany.

The facility has not undergone significant changes since its initial certification audits. The International Cyanide Management Institute (ICMI) issued its first pre-operational certification in 2016, with the initial operational audit conducted in February 2017, following the formal start of operations on September 20, 2016. A recertification was subsequently granted in 2020 and 2023.

A recertification audit of the solid sodium cyanide production operations, policies, procedures, and facility was thoroughly conducted from April 7 to 10, 2026. The evaluation included discussions and interviews with personnel across various roles, such as operations staff, senior management, operational management, and the engineering and Environmental, Health and Safety (EHS) team. All personnel involved in the audit were representatives of CyPlus Idesa. To assess compliance with the International Cyanide Management Code (ICMC), the auditor employed the ICMI document "Cyanide Production Verification Protocol" from June 2021.

Locally established procedures were also reviewed as part of this audit. Compliance was assessed based on selected samples of information, which included interviews, observations, and the examination of relevant records and data. This approach aligns with the typical methodologies used in EHS management system and compliance audits.

An independent third-party auditor, pre-approved by the ICMI acting as Lead Auditor and technical expert for production operations, carried out the 2026 CyPlus Idesa operational certification audit.

Over the three years of the recertification period, there were no reported cyanide-related incidents, spills, or exposures at the production facility. The audit comprehensively examined all facets of cyanide production operations. Following this detailed assessment, the operation was determined to be in Full Compliance with the Cyanide Code Production Operational requirements.



Auditor's Finding

This operation is

- ☒ **in full compliance**
- ☐ in substantial compliance
- ☐ not in compliance

with the International Cyanide Management Code.

Compliance Statement

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

Auditor Information

Audit Company:	Cyanide Auditors S.A.	
Lead Auditor and Production Technical Auditor:	Bruno Pizzorni	bpizzorni@cyanideauditor.com
Dates of Audit:	April 7 to 10, 2026	

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 Cyanide Code 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 Production Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

Cyplus Idesa Production Plant		September 3, 2026
Name of Facility	Signature of Lead Auditor	Date



PRODUCTION VERIFICATION PROTOCOL

Principle 1 | OPERATIONS

Design, construct and operate 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.

The operation is ☒ in full compliance with ☐ in substantial compliance with ☐ not in compliance with Production Practice 1.1

Summarize the basis for this Finding/Deficiencies Identified:

Quality control and quality assurance programs have been implemented during construction of cyanide production and storage facilities. The construction designs and associated documentation are still retained and were developed by ThyssenKrupp. No new cyanide installations have been constructed during this recertification period 2023 – 2026. The auditor confirmed that the facility retains all quality control and quality assurance records from the project construction both in electronic and in hard copies and in hard copies kept in a room dedicated exclusively to maintaining these records as well as all manuals of the equipment installed in the Plant. The files are kept correctly labeled and ordered for its easy access.

Records indicate that qualified personnel from ThyssenKrupp consistently reviewed the facility construction process at regular intervals. They verified that each stage of the project adhered to the established engineering plans.

Documents related to quality control and assurance for the construction of this facility were easily accessible for review. As a result, this section of the protocol is not applicable.

The construction materials used in the cyanide production facility are compatible with the reagents involved in the process. Material specifications were reviewed during the initial certification audit and were found to be acceptable.

During the audit, the interlock system was reviewed. Each critical system includes interlocks designed to prevent cyanide releases in the event of a power outage or equipment failure. These interlocks are integrated into the DCS system to automatically help prevent such releases.

Production activities take place on a concrete surface designed to effectively limit seepage into the subsurface. All cyanide-related operations are confined within the designated containment area. During the recertification audit, the auditor observed and verified that the concrete surface, along with its construction joints, remains in excellent condition, ensuring a reliable barrier against infiltration into the subsoil.

Interviews and an evaluation of sample specifications and drawings verified that all tanks and

storage vessels are equipped with tank level indicators and high-level alarms integrated into the distributed control system (DCS). These indicators were assessed as sufficient to prevent the overfilling of cyanide process and storage vessels. The auditor also confirmed that operators can monitor and manage tank levels from the plant's control room, where they can hear alarms in the event of overfilling.

Secondary containment structures for process and storage tanks, as well as containers, are built using materials designed to effectively prevent leakage. These containment areas are also specifically sized to accommodate a volume larger than the capacity of the largest tank, including any associated piping that may drain back into it, along with additional space to account for extreme rainfall during severe storm events. Engineering design documentation, calculations, and rainfall data were thoroughly reviewed during the initial certification audit and deemed accurate and satisfactory. During this audit, the auditor confirmed that all secondary containment systems are maintained in proper working condition.

All piping for cyanide solutions is positioned above concrete equipped with secondary containment.

The building designated for cyanide storage is constructed with a closed, roofed structure to prevent exposure to rainfall. The roof features a water drainage system oriented towards the north and south, with a 5% slope to ensure efficient water runoff. Inside the warehouse, the ramps used by forklifts are designed with a 4% incline, facilitating smooth movement. The structure is built using durable materials, including metal roofing. Ventilation is optimized through openings in the roof and side windows, both equipped with protective measures against rain. Entry is provided for finished products, alongside dedicated dispatch openings for containerized cargo to be shipped to customers. Outside the storage area, the pavement slopes are carefully designed to prevent surface runoff water from rain from entering the warehouse.

The storage area designated for cyanide is equipped with excellent ventilation systems designed to prevent the buildup of cyanide dust and hydrogen cyanide gas. The auditor confirmed the effectiveness of the ventilation by visually inspecting the enclosed storage spaces to ensure proper airflow. Adequate ventilation is facilitated through 10 natural ventilation openings and the spacing between the storage boxes and the roof, allowing for sufficient air circulation. The roof itself features 10 natural ventilation openings along with four skylights oriented in a north-south direction.

The warehouse, situated within the CyPlus Idesa property, is a secure facility enclosed by perimeter fencing and restricted access. To ensure safety, cyanide is stored in a controlled manner, restricting entry to the public and unauthorized individuals. The storage area is housed within a secure building equipped with gates and padlocks. The facility is under constant 24/7 surveillance, with access strictly monitored and regulated by the operation's security personnel. Entry to the area remains tightly restricted.

The warehouse is strictly prohibited from storing substances or materials that are incompatible with cyanide. During the audit site visit, it was confirmed that only cyanide was being stored. The warehouse designated for cyanide products is equipped with a smoke detection system that



swiftly triggers alarms to avert potential fire hazards. As part of its fire suppression strategy, the warehouse is equipped with purple K extinguishers strategically distributed throughout the facility, including additional 50 kg units. This arrangement effectively mitigates risk by avoiding the hazardous interaction of water with the finished product, which could release hydrogen cyanide gas. In the event of more extensive fires, an external firefighting network is accessible. However, the initial response protocol emphasizes the use of extinguishers, as they are generally adequate for addressing most fire emergencies within the facility.

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

Summarize the basis for this Finding/Deficiencies Identified:

The Plant production and storage facilities have the necessary procedures in place for a safe and environmentally sound operation. Extensive operational and emergency response procedures have been created by CyPlus Idesa specifically for this operation. The following procedures and guidelines that address normal operations, upset conditions, and emergency events are addressed in the documentation are, among others:

- LSP-90002 Guidelines for Safety, Hygiene and Environment (2)
- LSP-90006 Alcohol and Drug Testing Guideline
- LSP-90013 Guideline for Authorized Transporters
- LSP-90016 Control of Personnel Entry and Exit
- LSP-90000 Medical Attention for Intoxication or Work Accident
- LSP-90005 Receipt of Community Complaints and Suggestions
- PSP-90008 Work Permits
- PSP-90016 Major Emergency and Civil Protection Plan (1)
- PSP-90022 Road Crisis Management and Communication
- PSP-90023 Selection, Use and Control of Personal Protective Equipment rev. 02 (8)
- PSP-90026 Incident–Accident Reporting, Classification, Recording and Follow-Up
- PSP-90031 Handling, Transport and Storage of Hazardous Chemical Substances
- PSP-93001 Handling and Washing of Cyanide Residues
- PSP-93011 Operation of the Crystallization System



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| ○ PSP-93122 Start-Up of the Vacuum System (Z-8320) | Shutdown |
| ○ PSP-93105 Operation of the Compaction Unit Z-8430 | ○ PSP-93038 Detection and Replacement of Critical Positions |
| ○ PSP-93018 Detox Operation | ○ PSP-96200 Training Management and Administration |
| ○ PSP-93020 Planned Safety Tours | ○ PSP-97503 Storage of Finished Product (NaCN) (002) (003) |
| ○ PSP-93021 Equipment Washing Procedure | ○ PSP-97503 Storage of Finished Product (NaCN) |
| ○ PSP-93028 Normal Plant Shutdown | ○ PSP-99001 Management of Change |
| ○ PSP-93030 Emergency Plant | |

The facility is certified in ISO 9001 Quality Management, in ISO 45001 Occupational Health and Safety, also holds certification as Socially Responsible Industry.

The auditor reviewed the facility written operating procedures, among other documents, confirming that they address the safe management of cyanide. Implementation of procedures was confirmed through observation of these activities during the auditors' site visit. The auditor also had interviews with the personnel responsible for performing these tasks, and reviewed the available documentation, finding it in conformance.

Maintenance and operational procedures were reviewed, offering insights into minor process disturbances. Additionally, CyPlus Idesa has established supplementary procedures to address contingencies during such disruptions. These include the Emergency Stop procedure for electrical failures, the Boot of the Reaction System procedure (linked to the interlock system), among others.

CyPlus Idesa has established and actively enforces a comprehensive Management of Change (MOC) protocol designed to ensure a meticulous risk assessment is conducted prior to implementing any alterations to operational procedures or equipment configurations. This detailed process mandates, at a minimum, a thorough review and formal approval by both environmental and safety supervisors before proceeding with any proposed adjustments or modifications. Several practical instances showcasing the application of this MOC procedure were made available for evaluation, including the repositioning of a flow transmitter and the subsequent update of the Hazard and Operability (HAZOP) study.

Documentation associated with these changes was meticulously maintained within the company's intranet-accessible Document Management System, and upon inspection, was found to be comprehensive and satisfactory. During the course of the audit, interviews were conducted with personnel from management, engineering, and the Environmental, Health, Safety, and Quality (EHS) teams. It was notable that all interviewed staff demonstrated a commendable level of familiarity with and commitment to adhering to procedural standards outlined within the MOC



framework.

A preventive maintenance program known as Enterprise Asset Management (EAM) has been developed and implemented at the plant. Through this program, the facility registers all its assets along with their associated preventive, predictive, and reactive maintenance activities. This includes production and storage assets for sodium cyanide, such as tanks, pumps, pipelines, filling equipment, gantry cranes, forklifts, isocontainers, and the cyanide filling station. The program facilitates the maintenance workflow by generating work orders and scheduling tasks on an annual basis to ensure consistent follow-up.

Maintenance planning is informed by various factors, including references from manufacturers and suppliers, the operational condition of equipment, historical maintenance data, predictive maintenance reports, and equipment availability. For each asset or system, a detailed document is created based on maintenance frequency requirements, outlining all maintenance plans. The plans incorporate routines tailored to different intervals and specialized disciplines. To further reinforce its preventive approach, the plant undergoes scheduled shutdowns every six months in April and October for mandatory maintenance activities. Additional maintenance tasks are performed whenever operations are paused.

A review of system records revealed them to be comprehensive and thorough. Inspections of procedures confirmed their suitability for the plant's operations. During the audit process, completed maintenance records were evaluated, and employee interviews highlighted full compliance with established procedures.

Process parameters at the plant are tracked using appropriate instrumentation. Calibrations carried out by plant personnel adhere to a structured procedure, utilizing calibrated test equipment and ensuring that only trained and competent individuals handle the task. These calibrations are conducted at intervals aligned with manufacturer recommendations.

During the audit, both the master calibration schedule and the corresponding calibration records were reviewed. CyPlus Idesa oversees process parameter monitoring through the Distributed Control System (DCS) system, while also managing the calibration of personal HCN monitors and stationary HCN monitors.

CyPlus Idesa has introduced measures to prevent the release of cyanide-contaminated water into the environment, as well as protocols for handling and disposing of cyanide-contaminated solids in an environmentally responsible way. The operation has implemented a specific method for managing water from the process building, which flows through the "Submarine," tank V-8341, and subsequently into the process tank. This management strategy is outlined in the procedure titled Management of Dike and Pit Levels.

During the audit, contingency procedures for both the control room and operators were reviewed, including the document Contingency Plan for Operations - Loss of Power. Additionally, the protocol for testing water for cyanide contamination before its discharge into the fire water collection tank or other non-process streams was assessed and deemed satisfactory..



CyPlus Idesa has adopted sustainable processes to manage cyanide-contaminated solids and ensure the proper disposal of associated materials. The waste disposal protocol from the laboratory has been thoroughly reviewed and includes methods for safely processing cyanide or caustic solutions back into operations. Additionally, the company examined established guidelines and procedures governing the DETOX area of its sodium cyanide (NaCN) production plant, where wastewater from the manufacturing process undergoes treatment.

Other evaluations included protocols for cleaning waste and managing its disposal. Verified records indicate that the hazardous waste disposal company contracted by CyPlus Idesa is authorized to handle toxic and hazardous materials. Furthermore, the company maintains a comprehensive file containing all required permits issued to this transport service provider, ensuring compliance with regulatory standards.

CyPlus Idesa ensures that all cyanide packaging is properly labeled in the relevant languages of the countries it passes through during transportation. The procedure for filling big bags outlines the various methods employed to guarantee uniform and safe packaging. Each bag undergoes safety testing and includes certification details, along with the specified safety factor, clearly indicated on its inner packaging. Additionally, the Filling of SLS Containers procedure sets forth measures to ensure that isocontainers are correctly filled, securely sealed, and adequately labeled. Operational protocols mandate verification that both labeling and packaging remain intact and uncompromised upon delivery to customers. During the site visit, the auditor confirmed that all observed packaging was in excellent condition.

Production Practice 1.3

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

The operation is	☒ in full <i>compliance</i> with	Production Practice 1.3
	☐ in substantial <i>compliance</i> with	
	☐ not in <i>compliance</i> with	

Summarize the basis for this Finding/Deficiencies Identified:

CyPlus Idesa has established the Planned Safety Tours procedure and implemented a program aimed at conducting regular inspections of all cyanide production and storage facilities. These inspections cover critical infrastructure such as tanks, pipelines, pumps, valves, and containment systems.

The procedure outlines a detailed Planned Safety Route Plan, which identifies specific systems and equipment that must undergo periodic reviews based on an assigned frequency. Documentation related to these inspections, including frequency schedules and verification criteria, is maintained in the Planned Safety Paths Folder located in the Control Room. The timing and schedule of these activities are coordinated through the Periodic Safety Inspection Program.



Any anomalies identified during scheduled inspections are promptly reported to the on-duty supervisor to ensure immediate corrective actions are taken.

Cyanide storage tanks are incorporated into an annual preventive maintenance program where they are inspected for structural integrity, signs of corrosion, and potential leakage. Secondary containment systems undergo monthly evaluations to verify their integrity, check for the presence of fluids, assess available capacity, and confirm that all drains are properly closed to prevent any unintentional environmental release. Pipelines, pumps, and valves are likewise inspected on a monthly basis as part of this preventive maintenance program.

Inspection records for all these activities were reviewed during the certification period and found to be thorough and complete. These records demonstrate adherence to the established inspection processes and underscore the company's commitment to safety and environmental responsibility.

The inspection frequencies have been deemed adequate to ensure equipment operates within its intended design parameters. Monthly inspections are conducted for pipelines, pumps, and valves to check for signs of wear or leakage. All records were reviewed and confirmed to be complete. The procedure for Planned Safety Tours outlines the safety inspections carried out across the plant, complemented by detailed checklists tailored to each inspection type. Elevators, firefighting equipment, basic personal protective equipment (PPE), and areas with hazardous chemicals are also subject to monthly inspections, while showers undergo weekly checks. The related documentation was available for review and verified to be comprehensive.

CyPlus Idesa systematically documents inspections and maintains records both in its work order system and as hard copies. These inspections capture details such as observed items, the inspection date, the inspector's name, and any identified deficiencies. When deficiencies are noted, the corresponding corrective actions are also recorded. This practice was verified through interviews and a review of records, with the auditor deeming all information reviewed to be satisfactory.



Principle 2 | WORKER SAFETY

Protect workers' health and safety from exposure to cyanide.

Production Practice 2.1

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The facility has established and put into practice measures aimed at minimizing worker exposure to cyanide during its production, storage, and shipment under normal operating conditions from receipt of raw materials through finished product packaging and shipping. Alongside the Production Department's procedures, the plant has also implemented specific protocols related to non-routine and emergency services and maintenance related activities. These procedures, among others are:

- Medical Care Due To Poisoning or Work Accident.
- Loads Handling
- Permits For Work in Confined Spaces
- Hot Work Permit
- Medical Exams, Admission, Recurring, Specials and Consultations.
- Major Emergency and Civil Protection Plan.
- Standard for Preparation and Monitoring of Drills.
- Review and Testing of Emergency Equipment Systems
- Accident Investigation, Incident.
- Selection Use and Control of Personal Protective Equipment.
- Leakage and Spill Control
- Control Of Entry and Exit of Personnel.
- Electric Padlock and Isolation of Dangerous Energies
- Handling, Transport and Storage of Hazardous Chemicals.
- Correct Use of HCN Personal Detectors
- Handling and Storage of Compressed Gas Cylinders.
- Identification, Management and Disposal of Hazardous Waste and Special Handling Waste.
- Identification and Evaluation of Environmental Aspects.
- Safety in the Maintenance of



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| Electrical Installations. | ○ Crisis Management and Communication |
| ○ Identification and Verification of Risks. | ○ Basis for Soil Remediation. |
| ○ Analysis and Evaluation of Risks. | |

Comprehensive procedures have been established to address normal operations, abnormal situations, maintenance activities, and emergency responses. A complete list of operational, maintenance, and EHS procedures was reviewed and deemed satisfactory. Key non-routine and emergency procedures examined during the review included the Civil Protection Plan, the Spill Control Procedure, the Notification Procedure, and procedure Cyanide Exposure and Medical Treatment.

As part of the assessment, procedures for various operational scenarios, emergency responses, and maintenance tasks were sampled. This process also involved interviewing personnel and reviewing relevant records. The audit confirmed proper implementation and compliance with the established procedures.

CyPlus Idesa implements preventive maintenance procedures supported by regular inspections of its facilities and equipment. These procedures cover the scheduled maintenance of various equipment types, such as cyanide detectors, cyanide production machinery, forklifts, firefighting devices, and emergency response tools. The procedures outline the use of Personal Protective Equipment (PPE). This includes HCN personal monitors as an essential component of the PPE for the plant.

CyPlus Idesa actively seeks employee input and incorporates it into the development and assessment of health and safety procedures. The Safety Committee, which convenes quarterly, is composed of operators, supervisors, and managers. These meetings, along with daily five-minute safety briefings and refresher training sessions, create opportunities for operators to share their feedback on procedures and any updates at the facility.

CyPlus Idesa actively promotes worker engagement in identifying and addressing unsafe conditions and actions by offering a dedicated online platform for this purpose. This system ensures the documentation of suggestions and recommendations aimed at enhancing operational efficiency, safety measures, and emergency procedures within the plant. The initiative underscores the company's commitment to allocating time and resources that enable workers to contribute meaningfully. Furthermore, CyPlus Idesa acknowledges and incentivizes employees who participate in the program by proposing constructive ideas.

To foster continuous improvement, the company conducts evaluations, involving workers to refine work practices and operational procedures. In addition to contributions from individual employees, the operations and logistics departments have integrated the KAIZEN system into their workflows. The system is structured around a monitoring framework that details the contributor's name, the proposed idea, its impact, and the specific area affected. This approach ensures transparency and accountability while driving innovation across multiple levels of the organization.



To maintain safe working conditions, engineers with significant expertise in cyanide production and storage conducted formal evaluations of the Plant and warehouse areas. As part of these assessments, operational procedures were updated to include the use of portable hydrogen cyanide (HCN) monitors in tasks where elevated exposure to cyanide or HCN levels (above 4.7 parts per million) is a known risk. It is mandatory that at least two operators per operational team carry a portable monitoring device. Additionally, stationary monitors have been strategically installed in locations with potential risks of high HCN gas or cyanide dust concentrations.

An external contractor carried out biannual monitoring for cyanide dust, among other substances. The monitoring efforts include activities to detect sodium cyanide particles and HCN gas levels across five floors of the Plant, the laboratory, and the logistics area, including the cyanide warehouse.

Hydrogen cyanide (HCN) toxic gas monitors are strategically installed across the production area to ensure workplace safety.

The HCN fixed gas monitor alarms were set to 4 ppm for the fixed HCN detectors and the Notifire system. Since their alarm system does not support decimal values, it will be set to 4 ppm.

The Emergency Response Plan (ERP) v11 includes updates to sections 2.1.4 and 2.1.5. In section 7, the established procedure address the alarms for both Pre-Alarm and Declared Alarm states in relation to various types of toxic gases located in high-risk areas, with a particular focus on HCN.

Operators utilize portable HCN monitors as part of their regular safety routines. During the audit, the facility was equipped with Dräger personal monitors and Honeywell fixed HCN gas monitors. Personal monitors undergo maintenance twice a year in adherence to the manufacturer's specifications. Additionally, a weekly bump test is conducted on-site using a calibration module and HCN calibration gas to ensure accuracy. The set alarm thresholds were verified during the audit and found to conform with ICMI standards. All relevant records were reviewed, and documentation was confirmed to be complete.

Operational procedures dictate that at least one portable monitor must be carried by every two operators at all times. In the Control Room, a dedicated log is maintained to track the issuance and return of these monitors.

In areas where workers gather, such as offices, factories, and warehouses, alarm systems and light signals are installed to alert individuals during emergencies, including incidents involving cyanide. A green light indicates normal conditions within the facility. A red light signals the presence of a fire, while a white light signifies the need for evacuation.

HCN monitors are calibrated following the manufacturer's specifications. Maintenance and calibration are carried out by both in-house personnel and an external service provider. Fixed monitors are specifically calibrated by the external contractor. Documentation for these activities was reviewed and found to be thorough and complete. All records are kept on file for a minimum three years.

CyPlus strictly prohibits individuals from working alone in areas where cyanide is present to



ensure safety. According to the Safety, Hygiene, and Environmental Guidelines, operators are required to work in pairs when conducting high-risk cyanide-related activities. These activities include cyanide washing, handling clogs in solid areas, starting machinery such as briquetting, drying, chilling, and big bag packaging equipment, among others.

Before entering the production area, everyone must log their presence by signing in. The control room operator maintains oversight of all personnel within the production zone. To enhance communication and safety, each individual in the production area is equipped with a handheld radio. Additionally, stationary two-way communication devices are strategically placed on every level of the operation and in the warehouse to facilitate effective communication.

Fitness-for-duty medical examinations are conducted before hiring and subsequently at least once a year. This process is outlined in the procedure Medical Exams, Admission, Recurring, Specials and Consultations. As specified in the procedure, employees must visit the medical services at the start of each workday before engaging in high-risk activities. Their fitness to work is assessed based on a Pass or Fail outcome. Additionally, workers involved in cyanide-related tasks undergo periodic specialized medical analyses.

Interviews confirmed that employees' health is thoroughly evaluated to ensure their ability to perform their designated tasks safely. Comprehensive records of these evaluations are kept in individual medical files. The ESH&Q Superintendent, who is also a medical doctor specializing in the treatment of cyanide poisoning, participated in an interview. She supported the details by presenting the medical follow-up program.

CyPlus Idesa implements a "Black and White" clothing change policy, which mandates operators to change their clothing before leaving the operational area. Specific clothing and personal protective equipment (PPE) requirements are also established for contractors and visitors. For personnel who may come into contact with cyanide, work clothing is laundered on-site through a specialized laundry service. A dedicated, sanitized changing room has been introduced for workers and contractors to securely store their personal clothing until their shift ends (designated as the white area). In this space, they change into clean, disinfected uniforms before accessing areas that may carry a risk of contamination. After completing their tasks, workers return to another changing room (known as the black area) where they remove and bag their potentially contaminated uniforms for laundry processing. Following this, they take a decontamination shower to ensure proper hygiene.

The facility's clothing change policy, applicable to employees, contractors, and visitors in areas where cyanide contamination of clothing might occur, is outlined in the procedure Guidelines for the Use of Lockers and Changing Rooms.

Cyanide warning signs and PPE notices are appropriately displayed across all operational areas. Activities such as eating, drinking, smoking, and the use of open flames are strictly prohibited in areas with possible cyanide exposure risks. Both leadership and operators demonstrated strong awareness of these restrictions and the serious hazards associated with non-compliance.

The auditor confirmed by observation the presence of signage around the facility. Interviews with



site personnel and review of the overall safety and training program with respect to cyanide safety also confirmed the workforce has been alerted to the presence and risks of cyanide.

CyPlus Idesa follows the "Guidelines for Environmental, Health, and Safety", which strictly forbids eating, drinking, smoking, and open flames in production and storage areas. Designated dining rooms are available in the Control Room and the laboratory. Personnel from other areas are required to use the dining room located in the neighboring plant owned by the associated business group. Drinking water or bringing it into areas outside the specified dining rooms is only permitted in the Administrative Area. Smoking is banned throughout the entire plant. The auditor reviewed the training plans and records, interviewed the employees and observed on-site signage throughout the facility, finding compliance with this provision. Employees showed awareness of the restrictions and of the potential dangers of not following the rules.

Production Practice 2.2

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

The operation is ☒ in full *compliance* with Production Practice 2.2
☐ in substantial *compliance* with
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation has the written emergency response plan Cyanide Warehouse Emergency Instructions and the Sodium Cyanide Warehouse Emergency Plan, detailing the specific emergency response procedures to respond to cyanide exposures and the processes to be followed in the event that cyanide is ingested, skin or eye contact made, and/or inhaled. The use of cyanide antidotes are also detailed. The document addresses the transfer of exposed victims to medical centers. The emergency response procedures to cyanide exposure are suited for the facility. If a worker sustains a disabling injury from a physical or chemical agent, they will be sent to their designated medical unit for care. First aid will be provided at the plant and during the transfer arranged by the CyPlus Idesa ambulance. The worker's medical identification sheet should, if possible, accompany them to the hospital's emergency department.

CyPlus Idesa operates a 24/7 on-site clinic staffed by a nurse and paramedic. A doctor is available on-site Monday to Friday, 8:00 a.m. to 5:00 p.m., with round-the-clock on-call support.

Shower and low-pressure eye wash stations are strategically placed throughout the facility. Additionally, the facility is equipped with non-acid fire extinguishers located in key areas. Firefighting equipment and fire protection systems are inspected in accordance with Mexican Standards. Monthly inspections of firefighting equipment follow the procedure "Review and



Testing of Emergency Systems and Equipment," while annual maintenance is carried out by an external provider that adheres to local regulations, specifically the requirements of NOM-154-SCFI-Current. Eye wash and safety shower units undergo weekly testing as per ANSI Standard Z358.2014, with a dedicated supply line ensuring consistent water pressure. CyPlus Idesa keeps detailed records of all inspections conducted.

The auditor inspected the operation confirming that showers, emergency showers eyewash stations and dry powder extinguishers were available where they may be needed and tested each shower to confirm that they are functional. The eyewash stations were in good working order, and they operate with low water pressure. The auditor checked the inspection tags to verify that the extinguishers had received their monthly visual inspections and periodically hydrostatic testing and certification by an outside vendor.

The auditor reviewed inspection and maintenance records for showers, low-pressure eye wash stations and non-acidic fire extinguishers demonstrating that this safety equipment has been routinely evaluated to ensure that it is available when needed.

CyPlus Idesa ensures the continuous availability of critical safety and emergency resources at the plant, including water, oxygen, resuscitation equipment, antidotes, and communication systems. The facility is equipped with two defibrillators: an AED (Automated External Defibrillator) and a DESA (Semi-Automatic Defibrillator). Both devices are battery-operated, and their operational status is checked on a weekly basis. The water pressure in safety showers and eye wash stations is constantly monitored, with an alarm system in place to alert the control room if the pressure falls below acceptable levels. Operations at the facility proceed only when all safety equipment is fully functional. Additionally, three designated social areas provide fresh drinking water, while sanitary water is supplied through a rooftop tank.

Oxygen for first aid, along with a resuscitator and antidotes, is accessible both in the medical services area and on the ambulance. The specific antidote available at the facility is Nithiodote, a kit containing injectable sodium nitrite and sodium thiosulfate. The auditor confirmed compliance with this provision through a facility inspection and interviews with employees.

CyPlus Idesa conducts regular inspections and ensures proper maintenance of its emergency response equipment and cyanide antidote to guarantee their availability in case of emergencies. CyPlus Idesa has implemented the procedure Review and Testing of Emergency Equipment Systems which is a protocol designed to ensure that all emergency equipment is regularly inspected and tested to maintain optimal physical condition and functionality. It defines maximum intervals and specific activities required for the evaluation of emergency equipment, such as the oxygen system, ambulance, safely stored antidotes in accordance with the manufacturer's guidelines, and other medical devices. The procedure applies to all equipment designated for emergency scenarios, with the primary objective of ensuring readiness, proper functioning, and availability during critical situations. The document outlines the inspection frequency and types of tests to be conducted on fire protection equipment, self-contained breathing apparatus, rescue tools, firefighting suits, oxygen systems, and medical devices including defibrillators and electrocardiograph monitors.



The cyanide antidote is stored in the plant's medical services and managed in accordance with the manufacturer's recommendations. Inspection records for the emergency response equipment were reviewed and deemed satisfactory.

Additionally, CyPlus Idesa collaborates with a local hospital to ensure that suitable equipment and antidote are maintained. The service provider performs monthly equipment checks, while the EHS staff reviews the service provider's records every six months. These records were made available for review and found to meet the required standards. The auditor reviewed the dates of the antidote to make sure they had not expired and to determine if they were stored at the temperature specified by their manufacturer, finding it with a current date.

Cyanide Safety Data Sheets (SDS) and first aid procedures are made accessible to workers in the plant's operational and storage areas in Spanish. Additionally, safety information is displayed on posters throughout the facility. CyPlus-Idesa collaborates with CyPlus GmbH to supply the MSDSs and ensure that this information is regularly updated and maintained.

The labeling and marking of piping clearly indicate the presence of cyanide. A review of hazard information on the tanks confirmed that it meets acceptable standards. Additionally, the direction of cyanide flow within the pipes is properly identified.

The decontamination procedure at the facility is designed to ensure the safety of employees, contractors, and visitors who may face potential skin exposure to cyanide. All individuals are required to transition out of their work clothing and personal protective equipment (PPE) after spending time in areas where contact with cyanide is possible. The facility's designated shower and clothes-changing area was showcased during the tour. CyPlus Idesa implements a "Black and White" clothing change policy, which mandates operators to change their attire before exiting the operational zone. Additionally, clothing changes are obligatory when individuals leave the work area to access offices, social spaces, or the canteen. Both leadership and operators displayed a strong understanding of the decontamination procedure and emphasized the importance of adhering to safety measures.

CyPlus Idesa has established an on-site first aid capability to address potential cyanide exposure incidents involving workers. This medical service is located within the administrative building and was integrated as part of a service-level agreement between Idesa and the contracted medical staff operating on the premises. The facility is designed to ensure that medical personnel can respond promptly to emergencies occurring at either of the plants.

A doctor is available in the plant's medical services area, while paramedics and nurses provide round-the-clock coverage. The facility is equipped with essential medical resources, including two stretchers, a defibrillator, a decontamination area, and a Type 2 ambulance operated by a paramedic, which is also outfitted with a defibrillator, oxygen, and other necessary medical supplies. These services are managed by Semedis, a contracted provider.

The facility has established guidelines for transporting exposed workers to qualified off-site medical facilities after completing essential decontamination and stabilization processes. Procedure Medical Care Due to Intoxication or Work Accident outlines medical care for these



emergency scenarios and addresses the transportation of affected individuals to the hospital, has been reviewed and deemed satisfactory. An ambulance is stationed at the site, supported by a team of trained emergency medical technicians and nurses who provide round-the-clock services at the on-site medical facility.

Local hospitals and medical staff have been notified about cyanide usage at the facility. Procedure Medical Care for Intoxication or Work Accidents requires staff to call hospitals before sending exposure victims. The on-site emergency team and local hospitals' medical capacities were assessed during the audit, and formal agreements with these facilities were deemed adequate.

CyPlus Idesa trains hospital staff and supplies antidotes as part of its agreement with a local medical provider. The Plant's Safety Superintendent evaluated local hospitals to identify those equipped for cyanide exposure treatment. A private hospital handles non-critical conditions, while life-threatening cases are sent to the State Hospital for its advanced resources.

The Plant's Safety Superintendent, a doctor trained in cyanide emergencies by Evonik/CyPlus GmbH in Germany, provides training to Local Mutual Aid Committee (commonly referred to as CLAM, based on its name in Spanish) doctors. CLAM, an industrial mutual aid group founded in 1968 and formalized as a non-profit in 1985, focuses on workplace safety, environmental protection, and community well-being. Its medical committee includes representatives from The Mexican Social Security Institute, commonly known by its Spanish acronym IMSS, the Ministry of Health (commonly referred to as SSA, based on its acronym in Spanish), and local health authorities. CyPlus Idesa supports the IMSS by supplying cyanide antidotes.

CyPlus Idesa has established a comprehensive incident investigation procedure to handle the evaluation, investigation, and reporting of incidents, including cases involving cyanide exposure. The procedures outlined in the Incident Investigation and the Major Emergency and Civil Protection Plan emphasize the need to review and update emergency response plans as required, whether following a drill or an actual emergency. The operation has implemented the procedure to investigate accidents, both for cyanide-related cases and those not involving cyanide. The auditor reviewed the incident reports that occurred during the recertification period. Although there were no cyanide-related incidents, investigations were conducted for incidents involving other issues, demonstrating compliance with the requirements.



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.

The operation is ☒ in full compliance with Production Practice 3.1
☐ in substantial compliance with
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

No direct discharge to surface water occurs. Groundwater sampling was conducted before operations commenced and will continue to be monitored at suitable intervals moving forward. Cyanide levels (free CN-) are continuously monitored at the discharge point following the detoxification process to confirm that any potential impact from indirect discharge to surface water is avoided. A review of the records showed them to be satisfactory.

Process wastewater is treated using detoxification equipment, with online titration measurements for total cyanide conducted every 10 minutes to ensure complete cyanide destruction. Domestic wastewater is directed to Idesa's neighboring plant, where it is transferred to a treatment tank. Water from washing workers' uniforms, cyanide solutions from the laboratory, and any accidental spills are directed into a tank known as the Submarine (V-8341). Any overflow from this tank is transferred to a collection box. Once gathered, these solutions are transported to the Detox area for further processing. Rainwater is collected through a drainage system consisting of gutters that encircle the facility in a perimeter ring and is discharged through a manually operated gate into the public drainage system. As stipulated by Mexican regulations, wastewater discharge into natural water bodies is prohibited.

The operation monitors groundwater upgradient and downgradient of the site in five underground wells. Groundwater monitoring is performed by the external contractor *Grupo Microanálisis* which laboratory is accredited according to EMA No. AG-016008/12. Results from five installed wells were reviewed, with the most recent testing conducted on 2026. The findings indicated that cyanide levels in the groundwater beneath and around the site were not detectable. The detection limit for the analysis was 0.02 mg/l, well below the national standard of 0.07 mg/l for drinking water. This testing also served as a baseline prior to the introduction of cyanide. Notably, there have been no spills or cyanide releases at the operation during this recertification period, nor have any occurred since cyanide usage began in early August 2016.

The facility does not indirectly discharge wastewater into surface water. Instead, all wastewater is directed to the Idesa wastewater treatment plant. A review of quarterly monitoring reports by the auditor confirmed that no detectable levels of cyanide were released from the operation.



The facility does not discharge indirectly to surface water. All wastewater is directed exclusively to the Idesa wastewater treatment plant. The auditor examined quarterly monitoring reports, which verified that no detectable levels of cyanide were released from the operation.

In the area around the operation, and further downstream, there is no useful application of groundwater. CyPlus Idesa keeps track of five wells, all of which have shown non-detectable levels of cyanide in their records.

Based on interviews, CyPlus Idesa emphasizes that its operations fully adhere to ICMC standards and do not affect groundwater. However, in the rare case that groundwater is impacted, the company commits to undertaking remedial actions to safeguard its beneficial use.

The Plant strictly regulates its atmospheric process emissions of hydrogen cyanide (HCN) gas to ensure the safety of both workers and the surrounding community. Air streams are directed to either a thermal oxidizer or a flare as required. Equipment such as storage tanks and production machinery, which could release off-gas or dust, are connected to a waste gas scrubber. This scrubber utilizes a caustic solution to reduce the potential generation of HCN gas. Even so, the treated off gas is ultimately routed to the thermal oxidizer for further processing.

To monitor emissions effectively, operations rely on a continuous online analyzer integrated into the thermal oxidizer. This analyzer functions 24/7 and logs all data into the Distributed Control System (DCS). A review of the operating specifications for the thermal oxidizer confirmed that its emissions do not pose a risk to the health of workers or the community. According to its specification sheet, the unit maintains final HCN emissions below 3 mg/m³. Additionally, worker protection is reinforced by strategically placed cyanide alarms. These alarms are configured to alert the DCS immediately if an issue arises, ensuring prompt response to safeguard health and safety.

The monitoring frequencies in underground water and ambient air have been deemed suitable for the operation to characterize the medium being monitored and to identify changes in a timely manner. Cyanide concentrations in ambient air are tracked using both portable and stationary HCN detectors. CyPlus Idesa ensures that atmospheric emissions of hydrogen cyanide gas from the process are controlled to safeguard the health of workers and the surrounding community.



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 facility in a manner that minimizes the potential for cyanide exposures and releases.

The operation is ☒ in full *compliance* with ☐ in substantial compliance with ☐ not in *compliance* with Production Practice 4.1

Summarize the basis for this Finding/Deficiencies Identified:

CyPlus Idesa ensures all personnel receive proper training to understand the risks associated with cyanide. This training takes place before handling cyanide and is revisited annually. Conducted in Spanish, it comprehensively covers various topics related to cyanide safety. The training material encompasses theoretical knowledge paired with in-person sessions held annually.

A review of the training schedule confirmed that production, laboratory, and logistics staff are included in the program. The schedule also outlines specific requirements for employees in EHS, maintenance, administration, and production departments. Interviews with operators and leadership team members showcased their strong understanding of cyanide hazards.

The cyanide-related training topics include the following:

- Emergency Response Plan
- Management and maintenance of HCN gas monitors
- Spill control procedures and use of containment kits
- Identification, management, and disposal of hazardous materials
- Cyanide toxicology principles
- Medical response to emergencies involving hazardous chemical substances

Training progress is consistently tracked through a Training Matrix, which is updated regularly and reviewed annually to stay compliant with local regulatory requirements. The procedure Training Management and Administration sets out the overarching guidelines for conducting personnel training.

Additionally, cyanide safety presentations are provided to contractors, visitors, and shift workers. Carriers receive biannual sessions focused on handling dangerous chemicals and understanding cyanide poisoning.



The operation provided records of training sessions conducted for 49 plant workers on June 3 and June 10. These sessions covered updates to the ERP, Revision 11, specifically for Cyplus Idesa Plant staff. The training included all changes in protocols and detailed the necessary actions to take in response to HCN gas alarms, as well as a review of the complete procedure.

Site personnel are thoroughly trained in the proper use, storage, cleaning, and application of personal protective equipment (PPE) according to the demands of each activity or task they undertake. CyPlus Idesa prioritizes the safety of its workers by equipping them with the knowledge needed to carry out their routine production responsibilities with minimal risk to health and safety, and ensures operations are conducted to prevent any unplanned cyanide releases. Comprehensive training in operational procedures was provided to all relevant personnel prior to the introduction of cyanide into the facility.

The training materials were reviewed and found to be sufficiently detailed, meeting the required standards. Training records were examined and deemed acceptable, while interviews with personnel demonstrated a satisfactory level of understanding and awareness regarding safety practices.

National regulations further mandate PPE training based on risk analysis tailored to specific work environments during initial employee orientation. The procedure outlined by NOM-017-STPS-2008 encompasses all aspects of PPE management, including usage, inspection, replacement, cleaning, limitations, maintenance, protection, and disposal. This protocol considers factors such as work area, job site conditions, nature of activities performed, type of risks involved, anatomical regions needing protection, and required PPE. The associated flowchart guides the process from risk identification and assessment to PPE selection, distribution, training, maintenance, and replacement. This process is expertly applied across various operational zones such as detoxification areas, thermal oxidizers, absorption filters, valve systems, laboratories, laundry facilities, cyanide storage sites, and the main plant building.

Employees undergo both classroom-based and hands-on training to develop proficiency in production tasks. Prior to beginning work, small group sessions, or walkdowns, are conducted to familiarize employees with the production equipment. Experienced German operators and trainers were on-site during the commissioning and start-up phases of the facility to provide guidance. Records documenting training and competency, including testing and supervisory assessments, are maintained for procedural, emergency response, and EHS training purposes. These records were reviewed and deemed satisfactory. Production training is led by the shift supervisor, who received instruction directly from the team responsible for installing the Plant's package units.

CyPlus Idesa provides all personnel with cyanide awareness training before they commence work at the operation. Employees receive classroom instruction on job procedures before handling cyanide. Training records are maintained, readily available for review, and deemed satisfactory. The auditor verified compliance by reviewing training records and interviewing operational and supervisory personnel.



The facility provides refresher training to its employees, on normal tasks involving handling cyanide to ensure that employees continue to perform their jobs in a safe and environmentally protective manner, as scheduled in the Training Matrix. Refresher training sessions are organized on an annual and biannual basis to ensure compliance and maintain the necessary level of knowledge among participants. These training programs are designed in alignment with Mexican regulatory standards, which specify varying time intervals for different topics. For instance, when it comes to hazardous materials, the regulations dictate that refresher training must be provided annually to meet safety and operational requirements. This program, among others, includes specific training to their assigned tasks and address cyanide safety. Formal evaluations were verified by review of the evaluation records and interviews with employees.

The essential components of training required for each specific job role are thoroughly outlined within the designated training materials. To enhance and reinforce these foundational materials, the facility integrates detailed work procedures as supplemental resources, ensuring comprehensive understanding and application. Training sessions are delivered by personnel who possess the necessary qualifications and expertise to effectively convey the information. Additionally, a structured training matrix was readily accessible for evaluation, and upon review, it was determined to meet the established standards satisfactorily.

The training sessions are conducted by highly experienced professionals from CyPlus GmbH and Idesa, ensuring a comprehensive learning experience for participants. These trainers possess extensive qualifications and deep expertise across various critical domains, including engineering, operations, logistics, medical services, and environmental health, safety, and quality (EHS). With years of hands-on experience under their belts, they bring valuable practical knowledge to the table. Furthermore, to enhance technical proficiency and ensure adherence to global standards, Shift Supervisors and laboratory personnel undergo advanced training programs held in Germany.

The facility assesses the effectiveness of cyanide training through testing and performance evaluations conducted after the initial training sessions. Records of these evaluations are maintained on-site, were accessible for review, and found to meet acceptable standards.

Production Practice 4.2

Train employees to respond to cyanide exposures and releases.

The operation is ☒ in full *compliance* with Production Practice 4.2
☐ in *substantial* compliance with
☐ not in *compliance* with

Summarize the basis for this Finding/Deficiencies Identified:

CyPlus Idesa ensures that all staff members are trained in its emergency response protocols. According to Section 6 of the Major Emergency and Civil Protection Plan, employees are instructed



to use the nearest alarm station in the event of a release. This action automatically notifies the control room of the issue. The procedure Leak and Spill Control outlines the specific steps required to handle such incidents effectively. Training records for the recertification period were reviewed as part of this process, and through interviews with facility personnel it was confirmed that appropriate training is provided to site personnel.

Employees receive specialized training to handle potential cyanide exposure, which begins with an initial safety program followed by annual refresher courses. Interviews revealed that a variety of scenarios—such as chemical spills, worker incapacitation, and environmental releases—have been developed to prepare teams for emergencies. Supporting materials, like instructional posters and wallet-sized guides, outline essential response procedures. Regular practice drills are conducted to ensure readiness and sharpen emergency skills.

In the event of a cyanide-related incident, nearby industrial enterprises would be alerted through the Local Mutual Aid Committee (CLAM). Additionally, the CyPlus Idesa Emergency Response Brigade has undergone training to assist affected personnel. Medical staff at the facility have been trained in administering cyanide antidotes, which are readily available on site. The auditor reviewed examples of training participation lists from throughout the recertification period and interviewed workers verifying compliance.

The site is responsible for keeping detailed training records and evaluation outcomes for all employees who have undergone training. In accordance with Mexican regulations, these records must be preserved using standardized official forms. The duration of record retention extends for the entirety of an employee's tenure at the site. Furthermore, these records are designed to meet all the training documentation requirements specified by the International Cyanide Management Institute (ICMI). The records are securely maintained both in electronic formats and as physical copies to ensure comprehensive accessibility and compliance.

Oversight of initial training programs, record-keeping processes, and adherence to relevant regulations falls under the purview of the Head of Human Resources. During an audit, the Annual Training Plan, the Induction Sheet signed by key figures responsible for areas such as health, safety, environment, and quality, as well as sample training records corresponding to the most recent recertification period, were thoroughly reviewed. The auditor noted that all documentation examined was accurate and aligned with required standards, indicating full compliance.



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.

The operation is ☒ in full compliance with Production Practice 5.1
☐ in substantial compliance with
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

CyPlus Idesa has proactively created a detailed emergency response plan and site-specific procedures to manage potential cyanide-related incidents effectively. The comprehensive Emergency Response (Civil Protection) Plan, along with supporting emergency procedures, were thoroughly evaluated during the audit process. This well-structured plan includes protocols for handling critical situations such as hydrogen cyanide (HCN) gas leaks and sodium cyanide spills occurring within the facility. Moreover, the plan outlines contingencies for scenarios involving emergencies during the transportation of sodium cyanide within a predefined radius of up to 320 kilometers from the plant itself. In such instances, trained personnel from the plant are prepared to travel to the site of an emergency, bringing essential resources to mitigate risks. These include specialized emergency brigades, spill recovery kits designed for efficient containment and cleanup efforts, and first aid kits to address immediate health concerns. This robust strategy underscores the organization's commitment to safety and environmental responsibility while ensuring swift and effective responses to unforeseen events.

The Plan addresses various potential failure scenarios tailored to the site-specific environmental and operational conditions. These include catastrophic hydrogen cyanide (HCN) releases, cyanide leaks from operational processes, risks of fire or explosion, equipment malfunctions, power outages, and tank overtopping incidents.

The ERP includes a scenario addressing cyanide exposure, outlining specific response actions for contact and inhalation incidents. These actions cover event communication, assessment of conditions for safely removing affected individuals, decontamination procedures using showers and eyewash stations, removal of contaminated clothing, appropriate rinsing times, and activation of medical services according to the relevant procedures.

The ERP was further strengthened by integrating detailed response measures for fire scenarios. This includes isolation techniques, alarm activation, the use of personal protective equipment, operational coordination, event mitigation strategies, and protocols for returning operations to a safe and normal state.



Additionally, the risk of power failure has been explicitly incorporated into the Emergency Response Plan. This includes operational actions required during such events and references Procedure PSP-93030, which outlines backup operations to ensure critical equipment remains powered. After review, the auditor deemed these scenarios relevant and well-considered. The emergency response procedures are documented across multiple resources, with specific tasks and actions clearly outlined. The Plan details spill response measures, including prohibitions on chemical usage near surface water sources.

For a catastrophic HCN release, the Plan incorporates assistance from CLAM, a coalition of 36 local companies committed to mutual aid in emergencies. Risks associated with fires and explosions have been assessed through the specialized “Risk Analysis and Vulnerability” study conducted by a contractor accredited by Mexico’s Civil Protection agency.

In the event of a public supply power outage, the Plant is equipped to activate its backup power generator to meet electrical demands as specified in procedure Emergency Shutdown due to Electrical Failure. This procedure outlines which critical equipment will remain operational under backup power.

To mitigate risks of tank and waste treatment facility overtopping, the Plant has implemented several procedural safeguards, including the procedures Identification and Management of Hazardous Waste, Management of Dikes and Trenches, and Detox Operation.

The ERP outlines specific actions for controlling emissions at their source, including automatic mechanisms using interlocks, remote actions from the control room via the DCS, and manual interventions by field operators, depending on the scenario.

It also incorporates a reference to procedure PSP-90000, Medical Care for Exposition or Work Accidents, as the applicable protocol for addressing exposure to or intoxication from cyanide.

The Plan outlines specific emergency response measures designed to facilitate the safe evacuation of site personnel during an emergency. It aligns with the neighborhood's Major Emergency and Civil Protection Plan as well as the Internal Program for Civil Protection Plan, both of which were reviewed and recently updated in collaboration with CLAM. These updates consider the nearby industrial plants potentially affected by emergencies in the area.

The procedure for Medical Care for Exposition or Work Accidents includes detailed first-aid protocols for responding to incidents such as cyanide exposure, including the administration of cyanide antidotes when required.

Both the emergency plan and procedure for leak and spill control prioritize controlling releases directly at their source. Furthermore, the plan specifies the necessary actions for containment, assessment, mitigation, and prevention of such events to minimize their impact.



Production Practice 5.2

Involve site personnel and stakeholders in the planning process.

The operation is	✓	in <i>full</i> compliance with	Production Practice 5.2
	☐	in <i>substantial</i> compliance with	
	☐	not <i>in</i> compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

CyPlus Idesa actively engages its workforce, nearby authorities, and the surrounding community in developing and refining its emergency response planning. Since joining the Local Mutual Aid Committee (CLAM) in early 2016, the operation has collaborated with industrial neighbors and local emergency response agencies to strengthen preparedness.

The Plant Manager conducts monthly meetings with employees, fostering an environment where staff are encouraged to discuss various safety concerns, including emergency preparedness strategies. Emergency response plan training sessions combine theoretical instruction with practical exercises, allowing workers to contribute to planning efforts when required. Feedback sessions following the trainings ensure continuous improvement and active employee involvement.

Employees also participate in Hazard and Operability Study (HAZOP) sessions to identify potential risks and establish control measures. The Emergency Response Plan integrates community involvement through collaboration with CLAM, which emphasizes neighborhood engagement in emergency preparedness. Details such as the Local Committee of Mutual Assistance emergency contact list are highlighted on the Plan. Communication equipment, including a dedicated radio for CLAM situated in the facility's control room, is readily available and its functionality was verified during a recent audit.

CLAM takes the lead in coordinating major emergency drills. The CyPlus Idesa Plant contributes to these efforts by appointing representatives to committees focused on civil protection, physical security, environmental matters, and medical operations.

The facility maintains ongoing and permanent coordination with communities that could potentially be impacted, utilizing the CLAM framework as a primary channel of communication. All members of CLAM are well-informed about the specific risks associated with the Cyplus Idesa Plant, particularly concerning accidental cyanide releases. To ensure transparency and mutual understanding, monthly meetings are held, providing a regular platform for dialogue. During these sessions, community members have the opportunity to engage directly, seeking clarification and offering input on proposed communication strategies and response measures that would be most appropriate in addressing such scenarios.

The operation has successfully conducted training sessions for various local agencies, including



the Red Cross, the State Civil Protection Agency, the Fire Department, and nearby hospitals. These sessions were designed to improve their preparedness and coordination within the established emergency response framework. A central component of the CLAM initiative is its emphasis on collaboration, with agency representatives participating in regular monthly meetings. These meetings serve as a critical platform for interaction and coordination among key stakeholders, including firefighters, Civil Protection personnel, Red Cross staff, representatives from IMSS, officials from the Secretariat of Public Safety (law enforcement), and Semedis, the designated medical service provider for the Plant. The updated version of the ERP now incorporates enhanced emergency communication protocols, integrating CLAM's radio frequency into the PRE to streamline coordination during emergencies.

As part of the audit process, records were thoroughly reviewed to assess the involvement of both CLAM members and external responders in training drills. The documentation demonstrated effective participation and was deemed fully satisfactory in meeting the objectives of the program.

During its monthly meetings with CLAM, CyPlus Idesa actively engages in ongoing consultations and communication with stakeholders to ensure that the Plan remains aligned with current conditions and emerging risks. The crisis and communication management process is outlined in procedure Crisis and Communication Management, which specifies the approach for coordinating with authorities and external responders. Team members maintain constant contact through WhatsApp.

Production Practice 5.3

Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is ☒ in full compliance with ☐ in substantial compliance with ☐ not in compliance with Production Practice 5.3

Summarize the basis for this Finding/Deficiencies Identified:

The Plan designates the production supervisor as the brigade commander, establishing their leadership during emergency situations. The advisor staff, which includes key figures such as the Plant Manager, EHS Superintendent, Maintenance and Production Superintendents, and alternate emergency response coordinators, holds the authority to implement emergency plans. They are explicitly empowered to allocate resources when necessary.

Emergency Response Team (ERT) members consist of Plant operators, management personnel, and office staff. The site manager serves as the brigade coordinator, overseeing internal and external communications during emergencies. Roles and responsibilities for handling emergencies, along with authority and duties, are thoroughly outlined within the emergency procedures. The Plan also features an ERT organizational chart along with a comprehensive



contact list.

Emergency response training is mandatory for the ERT under the Plan, including areas such as spill control, cyanide intoxication management, rescue at heights, and confined spaces. Training records were reviewed during audits and deemed sufficient. Furthermore, the Plan provides a detailed phone list both for internal communication and for reaching external responders. With three working shifts at the Plant, the initial notification is directed to a field employee followed by the Control Room staff operating 24/7. For security purposes, the guardhouse at the Plant entrance, managed by SERWISEG is also alerted. Supervisors communicate updates through radio channels. The external responder list includes contact information for local emergency agencies as well as representatives from CyPlus Idesa and CyPlus GmbH. During reviews, this list was confirmed to be current.

The Plan offers a clear breakdown of each coordinator's and team member's responsibilities, authorities, and duties in managing emergencies.

The emergency response equipment maintained on-site is itemized in the Plan, with details on the locations of firefighting tools, chemical response supplies, and medical gear. Regular inspections of equipment are mandated by the Plan and are carried out using checklists. During audits, these inspections were validated, showing proper upkeep and operational readiness. Checklists were available for review, and interviews during the audit confirmed staff awareness and commitment to meeting these requirements. Emergency showers and medical equipment undergo weekly evaluations.

The roles of external responders are also defined within the Plan. This includes contributions from Idesa's emergency brigades, medical personnel, hospitals' staff, Civil Protection units, firefighters, and law enforcement agencies.

Outside entities involved in the CLAM are informed of their roles in the Plan during emergency situations. They actively participate in emergency response drills and implementation exercises. CyPlus Idesa, as a member of CLAM, attends regular monthly meetings. The meeting minutes were reviewed and deemed satisfactory.

Additionally, CyPlus Idesa has an agreement with the hospital in Coatzacoalcos to ensure medical care for workers requiring attention beyond the site's capacity. Interactions with external responders, collaborative emergency response planning strategies, and training programs provided were evaluated and found to be suitable for the operation.



Production Practice 5.4

Develop procedures for internal and external emergency notification and reporting.

The operation is ☒ in full compliance with
☐ in substantial compliance with Production Practice 5.4
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Plan and procedure on Crisis Management and Communication outline the steps and contact protocols for notifying management, regulatory agencies, external response teams, and medical facilities during an emergency. It includes a detailed communication flowchart for emergency situations, along with current emergency contact numbers. This encompasses the phone numbers for the nearest hospital, local emergency services, and CyPlus Idesa's emergency lines. The Plan and procedure also specify the individuals or roles responsible for contacting external responders and authorities.

The Plan outlines procedures and contact details for informing potentially affected communities about incidents and managing communication with the media. The production facility is situated within an industrial park. According to the CLAM Emergency Response Plan, an Operations Coordinator from CLAM holds the responsibility of notifying CyPlus Idesa leadership, parent organizations, neighboring industrial partners, and relevant authorities. This coordinator, a permanent employee, operates from CLAM's office located within the PEMEX premises. The Plan details the responsibilities of the commander and specifies the duties of the crisis committee. Additionally, the procedures include guidelines for handling media communications.

In Mexico, the CLAM (Local Mutual Aid Committee) is a non-profit civil association established in 1968 in the southern region of Veracruz. Its focus is on preventing and responding to industrial emergencies, encouraging collaboration among companies within the industrial area to ensure the safety of both the environment and the surrounding community.

The CLAM has a committee comprising its own staff, led by Operations Coordinator, the person responsible for coordinating emergencies in the industrial area. This coordination is crucial when a company faces an out-of-control situation requiring assistance from local, federal authorities, and neighboring companies. The committee boasts a team trained to set up a crisis committee and incident command.

In addition, about 40 companies participate in the CLAM, including Cyplus Idesa and Pemex. These companies form various subcommittees to coordinate information on safety, environmental concerns, emergencies, and medical services within the industrial corridor.

The Plan includes a requirement and details to notify the ICMI of any significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document. No such communications have been made as there was no significant incident in the operation.



Production 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
☐ in substantial compliance with Production Practice 5.5
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Plan and procedures outline specific remediation measures for recovering and neutralizing both solutions and solids, as well as managing and disposing of spill clean-up debris. The procedure Control of Leaks and Spills focuses on the identification, management, and disposal of hazardous and special handling waste, detailing how dangerous waste should be managed and disposed of. The procedure explains the steps for controlling spills, specifically addressing how to manage sodium cyanide spills in the soil.

The ERP describes the necessary response actions for spills. It has a detailed sequence of activities, including product identification, area containment, emergency control, recovery, decontamination, cleaning, and proper waste disposal. In addition, the relevant criteria were established to assess the condition of soil decontamination following cyanide spill incidents.

The procedure Basis for Soil Remediation considers the established maximum soil limits for cyanide in Mexico. If a spill exceeds these limits, the response team is required to treat the affected soil. The soil treatment method must receive government approval. This guideline aligns with Mexican law, specifically Article 98, Chapter 2, Articles 134 to 144.

The ERP included the applicable procedure for handling, washing, and disposing of waste related to cyanide spill cleanup activities was incorporated.

According to procedure Control of Leaks and Spills, CyPlus Idesa is responsible for remediating contaminated soil and disposing of solids in line with procedure Identification, Management and Disposal of Hazardous Waste and Special Handling. This includes reprocessing, treatment, or final disposal as per the General Law for the Prevention and Integral Management of Waste and its regulations. CyPlus Idesa may also need to engage external remediation services if necessary. In cases where a spill involves 1 cubic meter of hazardous chemical substances, immediate notification to PROFEPA (Federal Attorney for Environmental Protection) and relevant authorities is mandatory, following the guidelines in section 8.5 on environmental emergencies from the Emergency and Civil Protection Plan.

For human consumption, plant personnel and nearby industrial facilities rely solely on bottled water.

The ERP Rev. 11 clearly prohibits the use of chemical substances to treat cyanide where there is a reasonable risk of impact to surface water, consistent with Code requirements. The Plan forbids



using chemicals like sodium hypochlorite, ferrous sulfate, and hydrogen peroxide for treating cyanide released into surface water. It specifies that chemicals for cyanide treatment are banned from use in these waters.

The plans and procedures implemented at the Plant emphasize the importance of environmental monitoring. The procedure Identification, Management and Disposal of Hazardous Waste and Special Handling Waste, acknowledges the potential necessity of monitoring to assess the scope and impact of a release. Additionally, the procedure Basis for Soil Remediation, considers the established maximum cyanide limits for soil in Mexico and stipulates that any soil treatment method must receive governmental approval. This guideline aligns with Mexican legislation, specifically Article 98, Chapter 2, and Articles 134 to 144.

Production Practice 5.6

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

The operation is	☒ in full <i>compliance</i> with	Production Practice 5.6
	☐ in substantial compliance with	
	☐ not in <i>compliance</i> with	

Summarize the basis for this Finding/Deficiencies Identified:

The Plan delineates that it must undergo a comprehensive review at a minimum of once annually to ensure its continued relevance and effectiveness. Additionally, it specifies that emergency response drills should be conducted at least twice each year as part of preparedness efforts. These drills are designed to address a variety of scenarios, including incidents involving cyanide spills, potential worker exposure to hazardous materials, and procedures for evacuation. Furthermore, the Plan emphasizes that it will also be reassessed and updated, if deemed necessary, in the aftermath of any accidents to incorporate lessons learned and strengthen preventive measures.

Emergency response drills have been routinely carried out at the Plant throughout the recertification period as an integral part of the Plan evaluation process. These drills have encompassed scenarios such as cyanide spills, worker exposure incidents, and evacuation procedures.

On March 27, 2023, a sodium cyanide leak drill was conducted on level two of the plant process building, with the participation of 15 emergency response team members. The auditor reviewed the drill report and evaluation, which described the exercise and identified improvement opportunities during the post-drill meeting. For the Hazardous Materials Brigade, the opportunities included selecting appropriate equipment to transport patients in difficult-access areas, reducing the time required to don firefighting gear, locating this equipment closer to the response area, and fully delimiting the affected zone. For the Medical Services Brigade, the need to improve response time and the antidote administration technique was identified.



On April 26, 2024, a sodium cyanide spill drill was conducted on level zero of the process building. A total of 56 workers were evacuated, and 71 people participated. The post-drill meeting identified improvement opportunities, including freeing the radio frequency for emergency response. Deficiencies were also observed in leadership, coordination, meeting-point assignment, resource management, proper equipment use, victim decontamination, stretcher cart handling, immediate evacuation, reporting of missing personnel, identification of the brigade leader, and use of the megaphone.

On April 29, 2025, an ammonia leak drill was conducted on a two-inch line. Sixteen emergency response members participated, and 76 people were evacuated. As in previous drills, improvement opportunities were identified for the firefighting, medical services, and evacuation brigades.

The auditor reviewed the 2026 drill program, which includes a sodium cyanide spill and exposure drill scheduled for this year.

The Plan outlines that a thorough review must be conducted following any emergency situation that necessitates its activation. This review serves to assess the Plan's effectiveness and determine if revisions are needed to address any identified gaps or areas for improvement.

However, during this current recertification period, such reviews have not taken place, as no emergencies arose that required the Plan to be put into action. Consequently, there has been no opportunity to evaluate its application or make any modifications.

