



International Cyanide Management Code Certification Audit

Production Facility – Summary Audit
Report

PREPARED FOR



Hebei Chengxin Co., Ltd.

DATE

22 June 2026

REFERENCE

0782151-01



DOCUMENT DETAILS

DOCUMENT TITLE	International Cyanide Management Code Certification Audit
DOCUMENT SUBTITLE	Production Facility – Summary Audit Report
PROJECT NUMBER	0782151-01
Date	22 June 2026
Version	03
Author	Hongtao Hu
Client name	Hebei Chengxin Co., Ltd.

DOCUMENT HISTORY

				ERM APPROVAL TO ISSUE		
VERSION	REVISION	AUTHOR	REVIEWED BY	NAME	DATE	COMMENTS
Version	01	Hongtao Hu	Joyce Xiong	Amy Wang	13 May 2026	For ICMI Review
Version	02	Hongtao Hu	Chad Ellis-ICMI	Amy Wang	17 June 2026	Redline version
Version	03	Hongtao Hu	Chad Ellis-ICMI	Amy Wang	22 June 2026	Final version

SIGNATURE PAGE

International Cyanide Management Code Certification Audit

Production Facility – Summary Audit Report

0782151-01



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APPENDIX A IMPORTANT INFORMATION RELATING TO THIS REPORT

ACRONYMS AND ABBREVIATIONS

Acronyms	Description
ICMC	International Cyanide Management Code
ICMI	International Cyanide Management Institute
CPV	Cyanide Production Verification
UNEP	United Nations Environmental Program
MES	Manufacturing Executive System
HAZOP	Hazard and Operability Study
LOPA	Layers of Protection Analysis
DCS	Distributed Control System
SIS	Safety Instrumented System
IBC	Intermediate Bulk Container
WAD	Weak and Dissociable

1.0 OPERATION GENERAL INFORMATION

Name of Production Facility:	Hebei Chengxin Co., Ltd.
Name of Facility Owner:	Hebei Chengxin Co., Ltd.
Name of Facility Operator:	Hebei Chengxin Co., Ltd.
Name of Responsible Manager:	Qunsheng Zhi
Address:	Hebei Chengxin Production facility located in Yuanzhao Road, Yuanshi County
State / Province:	Shijazhuang City, Hebei Province
Country:	China
Telephone:	(+86) 0311-84623437
Email:	hebeichengxin@hebeichengxin.com

2.0 OPERATION LOCATION DETAIL AND DESCRIPTION

Hebei Chengxin Co. Ltd. was established in 1990. It is a joint-stock enterprise with 1,580 employees. It is one of the largest production bases of cyanide and its derivatives in China. The company has been approved by the ISO 9001, ISO 14001 and ISO 45001 management system. The company has the right to import and export. The products are sold to many countries and regions, including South America, North America, Europe, Asia, Australia, South Africa.

Hebei Chengxin Co. Ltd is strategically situated on Yuan Zhao Road, 1.3 kilometers east of Yuanshi County railway station and 0.8 kilometers west of Kou Village. The site lies 30 kilometers south of Shijiazhuang City, the provincial capital. Its location is defined by Yuan Zhao Road to the north, Jinyuan Road 400 meters to the west, Chengxin Street to the east, and farmland to the south.

The site is used to manufacture a large number of chemicals using liquid sodium cyanide as a basic feed-stock. The part of the site used to manufacture liquid sodium cyanide and then convert the liquid sodium cyanide into solid sodium cyanide is referred to in this report as 'the cyanide facility'. The term 'the site' is used in this report to refer to the entire Hebei Chengxin Co. Ltd facility and includes a large number of manufacturing plants which use liquid sodium cyanide as feedstock, these manufacturing plants are not subject to this report.

The cyanide facility is connected to the site's utilities including stormwater drains and the site wastewater treatment plant. The cyanide facility does not have its own wastewater treatment plant.

The cyanide facility was constructed in 2007 and replaced earlier cyanide production facilities. There have not been any major modifications to the cyanide facility since 2007. The changes since the ICMC Certification Audit in 2023 comprised:



Hebei Chengxin Co., Ltd.

Name of Facility

A handwritten signature in black ink, appearing to read 'Hongtao Jiu', is written over a horizontal line.

Signature of Lead Auditor

22 June 2026

Date

- Energy-Saving Evaporator for Solid Sodium Cyanide Installation in Workshop 810
- Intelligent Improvement of Solid Sodium Cyanide Warehouse
- Control Room Relocation of Sodium Cyanide Production Process

The feedstocks to the cyanide facility are light oil and ammonia (stored on site as liquid ammonia). The feedstocks are preheated and evaporated to produce a gaseous reaction mixture. This mixture is passed to an electric arc reactor furnace where the oil fumes are heated to approximately 1,200-1,400°C and passed over a platinum catalyst. This reduces the oil fumes to methane and coke (carbon particles). These intermediate reactants react with the ammonia in an endothermic reversible partial reduction reaction producing a raw gas that is a mixture of hydrogen cyanide and hydrogen with small quantities of methane, oil fumes, coke particles and ammonia.

The coke particles in the product gas are removed in cyclones and recycled. The gas is then cooled in a heat recovery heat exchanger to less than 100°C and passed through a bag filter. This filtered hydrogen cyanide gas is passed through a sodium hydroxide absorber, which generates sodium cyanide liquor, which is transferred via overhead pipelines to bulk storage tanks.

The liquid sodium cyanide liquor then passes through overhead pipelines to the solid sodium cyanide plant where it is concentrated by evaporation in evaporation vessels under vacuum and then crystallised in crystallisation vessels to produce sodium cyanide crystals. The sodium cyanide crystals are then passed through a centrifuge to remove moisture, then through a drier to remove more moisture and passed via a cyclone to the pelletising unit. The vapour from the evaporation unit is passed through a condenser to form condensate, which is stored in bulk above ground storage tanks at the liquid sodium cyanide tank farms prior to reuse in the absorption process.

The sodium cyanide crystals are pressed into pellets which are loaded into plastic bags in either 50 kg iron drums or 1,000 kg timber boxes. The packaged cyanide is stored in the warehouse at the cyanide facility prior to despatch from site. The operation also provides liquid sodium cyanide to the domestic market which is transported in iso-containers.

The infrastructure at the cyanide facility comprises:

- Liquid cyanide production unit: Workshop 801
- Solid cyanide production unit: Workshop 810
- Two Solid Cyanide Warehouses
- One Liquid Cyanide Storage Tank Farm

The facility is paved with concrete. The vessels and tanks containing liquid sodium cyanide, such as the absorption tanks, liquid sodium cyanide tanks and condensate tanks are located within concrete bunded areas. The solid sodium cyanide production buildings are both self-bunded with concrete floors, concrete walls and bunds at each doorway. The cyanide facility does not generate any wastewater. The first flush stormwater is piped to a first flush system comprising two open concrete pits at the wastewater treatment plant which services the entire site (i.e. all the other chemical manufacturing plants of Hebei Chengxin Co. Ltd).

The facility operates on 12-hour shifts, 24 hours per day, seven days per week, with three production teams.

No cyanide exposure incidents occurred during the audit period from 2023 to 2026.

3.0 AUDITOR'S FINDING

This operation is

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

4.0 AUDITOR INFORMATION

Audit Company: ERM (Shanghai) Limited

Lead Auditor and Production
Technical Expert Auditor: Hongtao Hu

Lead Auditor Email: hongtao.hu@erm.com

Names and Signatures of Other Auditors:

Auditor Trainee:

Amy Ding



Name

Signature

Dates of Audit:

7 to 9 April 2026

5.0 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.

6.0 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.

☒ in full compliance with

The operation is

☐ in substantial compliance with Standard of Practice 1.1

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 1.1.

Quality control and quality assurance programs have been implemented during construction and modification of cyanide production and storage facilities. The quality control and assurance records have been retained. Appropriately qualified personnel reviewed the facility construction and provided documentation that it has been built as proposed and approved.

Cyanide production facility was designed by Class A qualified companies, which are certified by the Construction Administration of the Peoples Republic of China to design chemical process plants.

The Foundation and Structure of the production lines were constructed by qualified companies, which are certified by the Construction Administration of the Peoples Republic of China.

A qualified engineering supervision company was contracted as the interdependent construction management company for project management of QA/QC, health safety and environment, schedule control, cost control.

Construction Acceptance Reports have been prepared by the construction company, which were reviewed and approved by Hebei Chengxin, construction company and interdependent construction management company. Stamps of these companies have been chopped on these reports. The conclusion of the cyanide facility is acceptable.

The cyanide facility is mainly comprised of four units as below:

- Liquid cyanide production unit: Workshop 801
- Solid cyanide production unit: Workshop 810
- Two Solid Cyanide Warehouses
- One Liquid Cyanide Storage Tank Farm

A quality assurance document has been retained for each tank and vessel confirming adequacy of construction. For the pressure tanks, vessels and pipelines, the quality assurance document has been retained with design details, Usage Registration Certificate, Usage Verification Certificate, Safety Function Supervision and Testing Certificate, periodically verification report.

There are three modifications to the cyanide production facilities since 2023 as below:

- Energy-Saving Evaporator for Solid Sodium Cyanide Installation in Workshop 810
- Intelligent Improvement of Solid Sodium Cyanide Warehouse
- Control Room Relocation of Sodium Cyanide Production Process

The MOC records have been provided for review.

Quality control and quality assurance documentation is available for the cyanide facilities.

The materials used for construction of cyanide production facilities are compatible with the reagents used and processes employed. No changes to the materials or processes employed have been undertaken during the audit period. The materials used for the cyanide facilities comprise the following:

- Absorption tanks – stainless steel
- Pipe work – 304 grade stainless steel
- Liquid cyanide tank farm – tanks are carbon steel, lined with polyethylene or carbon steel
- Evaporators – 304 grade stainless steel
- Crystallizers – 304 grade stainless steel
- Centrifuge – 304 grade stainless steel
- Condensers – carbon steel
- Storage tanks – carbon steel

These materials are recognized as being compatible with the chemicals used to manufacture and store liquid sodium cyanide.

There are automatic systems or “interlocks” to shut down production systems and prevent releases due to power outages or equipment failures.

The solid cyanide production facility is not equipped with automated shutdown systems to prevent releases during power outages or equipment failures. Nevertheless, the plant’s design ensures that, should such events occur, the contents of vessels, tanks, or pipes remain securely contained until power is restored or equipment is restarted.

In the event of equipment failure, controls are designed to promptly alert operators through alarms indicating either the detection of HCN gas or elevated levels within tanks or vessels. Once an alarm is triggered, the control room operator immediately shuts down the affected section of the process. Operations resume only after the underlying issue has been thoroughly investigated and resolved.

Since 2012, the liquid cyanide production facility has operated with a Distributed Control System featuring interlocks. This system enables automated shutdowns in response to specific failure events, including power outages, elevated HCN gas concentrations, or high liquid levels in tanks and vessels. This approach ensures rigorous safety protocols and reinforces our commitment to operational excellence.

The elements of the liquid cyanide part of the plant connected to the DCS are:

- Power supply
- Ammonia and oil supply
- Vacuum pumps (two pumps per reactor)

- Emergency pressure relief valves on the reactor lines
- High and high-high level meters on the absorption tanks for transfer of sodium hydroxide.

The controls for the absorption tanks comprise the following:

- The absorption tanks are supplied with sodium hydroxide solution through an overhead pipeline connected to the sodium hydroxide tank farm, and with condensate sourced from the evaporator units via condensate storage tanks located in the liquid cyanide tank farm. Filling is managed by an operator positioned next to the absorption tanks, who activates the transfer pumps as required. Each absorption tank is equipped with high-level monitors that trigger both flashing lights and audible alarms, ensuring visibility and awareness for the operator. Additionally, the tanks transmit signals to the Control Room, providing real-time information on tank volume and ambient HCN gas detection outside the absorbers. If an alarm is triggered, the operator promptly shuts off the transfer pump supplying sodium hydroxide. At this stage, the absorption tanks do not contain cyanide. Once hydrogen cyanide gas is introduced, no further liquid additions are made to the tanks. As a result, interlocks are not deemed necessary for Code compliance at this point in the process.
- Liquid cyanide is conveyed through a pipeline from the absorption tanks to a volume measuring tank, and subsequently to the storage tank using a manually operated valve. The volume measuring tank is equipped with a high-level alarm, and its filling is overseen by an operator to ensure safe handling. Its capacity is designed to accommodate the entire contents of a single absorption tank. Once measured, the liquid cyanide is transferred to the tank farms via an overhead pipeline and another manually operated valve. From the tank farms, transfer to the evaporator occurs through automatic valves, which are monitored and operated from the Control Room. While these valves can be manually overridden, if necessary, the evaporators are fitted with high and high-high level alarms that alert control room operators, enabling them to promptly close the transfer valves to maintain safe operations.

The cyanide facility operates a single liquid cyanide tank farm, comprising ten tanks in total. Each tank is equipped with high-level alarms that are integrated with the Control Room. Should an alarm be triggered, the Distributed Control System (DCS) will automatically shut off the transfer pumps, ensuring safe and efficient management of the facility.

The cyanide facility receives electricity through two independent power supply circuits. If one circuit fails, the other is capable of fully supporting the plant's operational needs, ensuring uninterrupted functionality. In the event of both power supplies fail, the liquid or gas involved in the process remains securely contained, eliminating the risk of environmental loss. The plant's critical risk area is the cracking furnace. Should a shutdown be required, the cyanide facility's emergency response procedure is promptly initiated. According to this procedure, a power failure triggers the automatic shutdown of ammonia and light oil supply via the Distributed Control System (DCS). Without electricity, the cracking unit ceases HCN gas generation—since electrical power is essential for this process—and any HCN already produced remains safely contained within the cracking vessel. Additionally, the transfer of HCN gas from the cracking unit to the absorption tanks is not possible without electrical power.

In summary, in the event of power failure or equipment failure the contents of each vessel and pipe will remain within the vessel or pipe and cannot escape to the environment. There has not been a failure of both power supplies to the cyanide facility in the last three years.

In the event of equipment failures, the operators shut down the relevant part of the plant. The cyanide production facility has not had a situation where it has had to shut down the plant (either manually or automatically) in the last three years, other than planned maintenance.

Also, Hebei Chengxin conducts HAZOP every three years to assess the process risk of cyanide production facilities.

The cyanide facility areas are covered with concrete pavements to prevent seepage to the subsurface.

The cyanide warehouse is equipped with a concrete floor, which was found to be in excellent condition during the audit. Field observations confirmed that all process tanks and valves are installed on concrete bases and housed within secondary containment. The solution pipeline runs along a corridor constructed over concrete, ensuring robust protection. Additionally, the transfer piping used in converting liquid cyanide to solid form is positioned above concrete surfaces. Throughout the facility, these concrete surfaces were consistently observed to be well maintained, with no visible cracks or damage.

The facility does employ methods to prevent the overfilling of cyanide process and storage vessels, including level indicators and high-level alarms.

The methods applicable to each vessel are as follows:

- Absorption tanks – visual level indicators, electronic level indicators and high/high-high level alarms (connected to the DCS).
- Volume measuring tank – visual level indicators, electronic level indicators and high/high-high level alarms (connected to the DCS).
- Liquid cyanide storage tanks – visual level indicators, electronic level indicator and high/high-high level alarms connected to the control room.
- Evaporators – electronic level indicator and high/high-high level alarm indicated on the DCS.
- Crystallization vessels – electronic level indicator and high/high-high level alarm connected to the DCS.

The filling of each tank or vessel is supervised either by the pump operator or by the control room operator. Upon activation of an alarm the respective operator is able to switch off the relevant transfer pump. During material transfer the operator stands next to the pump switch close to, and in sight of, the flashing lights/alarms and tanks, to enable quick reaction time in the event of the need to switch off the transfer pump.

Regular inspections include level indicator equipment and secondary containments the vessels are stored in.

Secondary containments for process and storage tanks and containers are constructed of materials that provide a competent barrier to leakage and sized to hold a volume greater than that of the largest tank and container of cyanide solution within the containment and any piping draining back to the tank, and with additional capacity for design storm event.

The secondary containment for processing and storage tanks and containers is composed of concrete and concrete-rendered brickwork. The secondary containments are sized to contain at least 110% of the volume of the largest tanks and are paved with concrete. The tanks are also lined with an outer layer of silica compound insulation or metal sheet to minimize the risk of the projectile flowing to the bund boundary in the event of a leak in the upper part of the tank.

The containments were constructed with concrete and were observed to be of suitable quality.

If losses exceed the bund of the absorption tank area, the facility will rely on the stormwater first flush system from the concrete pavement to control the loss. The area outside the bund comprises concrete paved pedestrian way and roadway. All drainage will enter the Site's emergency collection tank with 1600m³ capacity. The cyanide facility would rely upon the emergency collection tank to collect the loss from the tank. The water in the emergency collection tank system is sampled and analyzed to determine the concentration of cyanide before being transferred to the Site's wastewater treatment plant.

The wastewater treatment plant uses sodium hypochlorite to break down the cyanide when required.

Spill prevention or containment measures are provided for all cyanide solution pipelines.

The pipelines from liquid cyanide workshop to solid cyanide workshop are located on overhead gantries which pass over concrete paved roadways.

There are no buried cyanide pipelines on the cyanide facility.

The pipelines are wrapped with stainless steel and compound, which provides thermal insulation. Cyanide labels and flow direction signs are in place on the pipelines.

There are no leak alarms on the cyanide pipelines.

1-hourly inspections and 12-hourly inspections are undertaken in the cyanide production area. The inspections include pipe work, flanges, pumps, high level alarms and tanks to identify leaks. Records of the inspections are kept.

In the event of loss from a pipeline within a bunded area, the spill would drain to a sump from where the liquid would be pumped to the cyanide wastewater tank for reuse in the process.

The cyanide facility undertakes monitoring of the pipe wall thicknesses every six months. The inspection records note the integrity of the pipe and support structures. The results indicate all pipelines have wall thicknesses greater than 70% of initial wall thickness.

According to Emergency Response Plan for Production Safety Accident, in the event that a leakage of cyanide solution from a pipeline discharge onto concrete paving, which will be drained into nearby wastewater drain, after cyanide breaking treatment with hydrogen peroxide (the volume concentration for hydrogen peroxide is 0.25mg/L) then pump into wastewater treatment plant.

Cyanide is stored with measures to avoid or minimize the potential for exposure of cyanide to moisture and adequate ventilation to prevent the build-up of hydrogen cyanide gas and cyanide dust.

Solid cyanide is stored in two sizes:

- 50 kg plastic bags within steel drums, and
- 1000 kg, 1100 kg within plastic bags within timber intermediate bulk containers (IBCs).

Drums and IBCs are stored in two secure, automated warehouses before being dispatched from the site. Each warehouse features a concrete floor, walls, and roof to prevent cyanide exposure to moisture. Windows are integrated into the walls to facilitate ventilation, while large entry doors further support airflow during the movement of IBCs via automatic conveyor

belts and trolleys. There are no safety showers or water systems within the cyanide storage warehouses. Instead, a dry powder fire extinguishing system is employed to ensure safety.

The warehouse is fully automated without staff operation in the warehouse normally. Operator will transfer the IBCs from solid production workshop onto the conveyor belt of the warehouse for storing. The entrance for employee inspections or maintenance is normally locked and accessible only through the security office, which is manned by a security person and fitted with security cameras which transmit to the security office. Visits to the warehouse are logged on paper records in logbooks.

The warehouse is situated within the boundaries of the cyanide facility, adjacent to the solid cyanide production workshop. The site is enclosed by a concrete and brick wall, with access permitted solely through a manned security gate. Public entry is strictly prohibited. Only solid cyanide is stored in the warehouse, kept separate from any incompatible materials.

Liquid cyanide is stored within a dedicated tank farm, comprising three 2,700 m³ tanks, three 512 m³ tanks, and four 192 m³ tanks. This facility features secondary containment and operates in an open-air environment. Eight fixed hydrogen cyanide (HCN) monitors are installed throughout the area, each connected to the Distributed Control System (DCS) in the control room to ensure continuous monitoring. Access to the tank farm is secured with a dual-lock system, with keys held by two designated individuals. Entry is strictly limited to authorized personnel, reinforcing rigorous safety and operational protocols.

STANDARD OF PRACTICE 1.2

Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 1.2

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 1.2.

The Facility does have plans and procedures that describe the standard practices necessary for its safe and environmentally sound operation.

The facility holds ISO certifications for safety, environment and quality management systems.

The Process Operational Rules is an integrated procedure addressing the full production process.

Operational procedures for posts are included for:

- Cracking (cracking furnace)
- Analysis
- Blender
- Loading

- Cycle Water
- Evaporation
- Vacuum Pump
- Laboratory Test
- Centrifugation
- Pelletizing, and
- Discharging.

The procedures do describe the necessary operating practices including pre-start checks, personal protective equipment and contingency measures.

The Facility has developed contingency plans for non-standard operating situations that may present potential for cyanide exposure or releases.

The facility operates through an automated Distributed Control System (DCS) located in a dedicated building separate from the production area. Emergency shutdown procedures and interlocks are integrated into the plant design and managed via the DCS for the liquid processing operations. As previously highlighted, the solid cyanide section does not feature automatic shutdown mechanisms to prevent releases resulting from power outages or equipment failures. Nevertheless, the facility's design ensures that, in the event of such disruptions, the contents of vessels, tanks, or pipes remain securely contained until power is restored or equipment is restarted. Additionally, the facility is equipped with an Uninterruptible Power Supply (UPS), providing emergency backup power for approximately two hours. This system enables a controlled shutdown of production processes and helps prevent potential releases during power outage scenarios.

The Process Operational Rules outline the Design Control System (DCS) for the cyanide production process, detailing the measures to be implemented in the event of an upset. The system is equipped with interlocks designed to shut down the process when necessary, ensuring safety and operational integrity.

In the event of cyanide exposure or release, the Site's emergency response plan outlines specific actions to be taken. These documents ensure a well-coordinated and effective response to such incidents.

The Facility has a procedure to identify when cyanide facilities or operating practices have or will be changed from those on which the initial design and operating practices were predicated, which requires review and sign-off by environment, health, and safety management.

The Management of Change Procedure details what changes require this procedure to be implemented. It details what type of work needs to be reviewed and by who, with process changes requiring review by both the department supervisor and the safety engineer and representative from the environment, health and safety department. Safety equipment changes are required to be reviewed by the safety management department. Changes involving facility change, process change, new project, expansion project, renovation project must be reviewed by the Vice General Manager or Technical Director. The procedure details conducting changes, inspections, acceptance, commissioning and post-work reviews as well as training and communication.

Preventive maintenance programs have been implemented and activities documented for equipment and devices necessary for cyanide production and handling

The Facility Maintenance Procedure is an integrated procedure that documents the routine inspection and preventative maintenance requirements for the cyanide facility are shown as below:

- Prepare and submit the Annual Equipment Maintenance Plan, for new year in December of last year
- Prepare and submit the Monthly Equipment Maintenance Plan, before the fifth day of each month.
- Inspection frequency for different kinds of equipment
- Maintenance frequency for main production equipment
- Special equipment internal and external third-party inspection requirement and frequency.

The Equipment Maintenance Plans list and describes the maintenance requirements, location, equipment specification, scheduled date, maintenance duration, responsible person.

Equipment maintenance plans and records for cyanide facilities for the audit period were reviewed and correlated with the descriptions of maintenance activities provided by Site engineers.

The Facility will shut down for approximately three days to conduct overhaul annually.

Process parameters are monitored with necessary instrumentation, and the instrumentation is calibrated according to manufacturer's recommendations.

The procedure requires that the calibration should be conducted according to the planned frequency. After calibration, a calibration notice must be placed on the equipment. The facility maintains annual calibration lists detailing the instruments in the plant that require to be calibrated during the year. The instruments include high pressure gauges, vacuum pressure gauges, numerical temperature displays and flow meters.

Temperature displays and flow meters have been calibrated by Electrical Instrument Department every 6 months.

Hebei Chengxin has obtained Certificate for Examination of Measurement Standard (Pressure gauge and pressure transmitter) which was issued by Shijiazhuang Quality and Technology Supervision and Inspection Institute. And there are two employees who have obtained the Measurement Calibration Certificates for pressure gauges calibration, so the Facility conducts calibration for pressure gauges every 6 months.

Gas detectors and safety valves have been tested by third parties which have qualifications and registered in Shijiazhuang Quality and Technology Supervision and Inspection Institute annually. The testing reports were randomly selected for review during audit. And the calibration records for the instrumentation used to monitor process parameters are required to be retained for three years.

Procedures are in place and are being implemented to prevent unauthorized/unregulated discharge to the environment of any cyanide solution or cyanide-contaminated water that is collected in a secondary containment area.

Water which collects within the secondary containment structures cannot exit the structure unless it is pumped out or otherwise intentionally removed.

The Emergency Response Plans specify that water collected within secondary containment areas must be transferred to the wastewater treatment plant's first flush stormwater tanks. This process utilizes a manually operated pump and a dedicated wastewater pipeline. The tanks themselves are substantial, in-ground concrete chambers designed to accommodate open storage.

The first flush of stormwater flow is also pumped via the stormwater pipe system to the wastewater treatment plant first flush stormwater ponds. Flow in excess of the first flush bypasses the stormwater first-flush tanks.

The stormwater is tested to determine the concentration of cyanide. If the concentration of cyanide is greater than 20 mg/L, the water will be treated with hydrogen peroxide or sodium hypochlorite to destroy the cyanide. Then the treated water will be pumped into wastewater treatment plant. If the concentration of the water is less than 0.5 mg/L total cyanide, it may bypass the wastewater treatment plant.

Test records were viewed for the stormwater collected in the site's stormwater first flush system at the wastewater treatment plant.

The facility has environmentally sound procedures for disposal of cyanide and contaminated cyanide solids.

The types of solid waste include:

- Contaminated product which cannot be sold to the customer.
- Contaminated packaging materials, such as plastic bags, plastic drums and timber.
- Protective clothing such as coveralls, respirator filter cartridges and gloves.

Waste cyanide is reprocessed at the cyanide facility in accordance with a Hazardous Waste Disposal Permit.

Other cyanide waste materials are categorized as Category 1 in the cyanide facility's waste classification scheme, as documented in the cyanide facility's Operations Manual (Chapter 6). In accordance with the procedure, the Category 1 waste is decontaminated with hydrogen peroxide or sodium hypochlorite and then tested for residual cyanide content prior to incineration at an incinerator located at another plant within the Chengxin Hebei site in accordance with the site's Hazardous Waste Disposal Permit.

There are procedures to ensure that the cyanide is packaged and labelled as required by the political jurisdictions through which the packaged cyanide will pass.

The cyanide facility packages cyanide in accordance with the Chinese standards. Classification and Code of Dangerous Goods (GB 6944-2025) is developed to align with the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2023).

The Standards of GB 19268-2021 and GB 6944-2025 specify the requirements for packing cyanide for export, including the packaging materials and method for inspecting the packaging.

The facility sources their drums and IBCs from a third party that obtains compliance certificates with each supply of the packaging. Process Operational Rules for Workshop 810 specifies the packaging requirements, including that the packaging must meet the Standard for Packing of Solid Cyanide.

The Hebei Entry-Exit Inspection and Quarantine Bureau inspected the cyanide facility's packaging systems for each supply consignment during the audit period and approved the packaging systems for international transport of the cyanide.

Stored cyanide was observed to be labelled in Chinese and English with global harmonized system GHS pictograms and UN number identifying the product.

STANDARD OF PRACTICE 1.3

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

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 1.3

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 1.3

The Facility conducts routine inspections of tanks, valves, pipelines, containments and other cyanide production and storage facilities, including:

- Tanks holding cyanide solutions for structural integrity and signs of corrosion and leakage
- Secondary containments for their integrity, the presence of fluids and their available capacity, and to ensure that any drains are closed and, if necessary, locked, to prevent accidental releases to the environment
- Pipelines, pumps and valves for deterioration and leakage
- Containers used for transportation, where the producer is responsible for their integrity

Tanks and vessels

The facility maintains a register of tanks and vessels and identifies which ones contain cyanide solutions. Inspections on the integrity of the tanks are completed via 1-hourly inspections and 12-hourly inspections are undertaken of the cyanide storage tanks, including pipe work, flanges, pumps, high level alarms and tanks to identify deterioration and leaks. The inspection records are dated.

The inspection records are dated and detail the results of inspection including the following items:

- Tank foundation stability
- Insulation and corrosion prevention materials
- Stairs and fences
- Bund
- High level alarms
- Tank valves
- Tanks signage
- Pipeline connection integrity
- Flanges and valve condition
- Wastewater collection facilities
- Presence of tank corrosion or leakage.

In addition to the 1-hourly inspections and 12-hourly inspections, the wall thickness of the vessels is tested every 6 months.

Secondary containments

A Site inspection confirmed secondary containments are in reasonable condition and evidence of periodic maintenance and patching was observed. The facility has updated its inspection process to better define standards for secondary containments. Minor defects in liquid cyanide unloading area were rectified during the audit.

The tank bund for liquid cyanide has been repaired in June 2022 which looks well during audit.

Discharge from the secondary containment is via a manually operated pump to drums to pour into emergency collection tanks at the Site's wastewater treatment plant, or for a concentrated liquid cyanide spill, to a mobile tanker for re-use at the cyanide facility. Therefore, there is no requirement to ensure that drains are closed or locked to prevent accidental releases to the environment.

Pipes – 6-monthly Pipe Wall Thickness Testing

The thickness of the wall of cyanide carrying pipes is monitored every six months. The inspection records note the integrity of the pipe and support structures. The inspection records are dated. Records were sighted for selected pipelines from 2023 to 2026.

Containers used for transportation

Before the transportation, the Site will check the containers certificates and inspect the integrity of the containers, emergency response materials.

Inspection frequencies are sufficient to ensure that equipment is functioning within design parameters. Based on interviews, inspection of the facility and content if the inspection records the frequencies are considered sufficient to assure that the equipment is functioning within design parameters.

The Facility has documented inspections that are retained. The documentation identifies specific items to be observed and includes the date of the inspection, the name of the inspector, and observed deficiencies. The nature and date of corrective actions were noted as being documented, and records are retained.

The inspection records have been provided for review during Site visit.

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.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 2.1

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 2.1

The Facility has developed formal procedures to minimize worker exposure during:

- a) Normal plant operations from receipt of raw materials through finished product packaging and shipping
- b) Non-routine and emergency operations
- c) Maintenance related activities

The Process Operational Rules provides an integrated procedure covering the whole cyanide production and packaging operation. The procedures cover normal and non-routine operations and the production facility is managed via a DCS in two control rooms, one for the liquid plant (801) and one for the solid plant (810).

In addition to the operating procedures there is a permit to work system that covers:

- Working at heights
- Confined space
- Lifting
- Digging
- Machinery maintenance
- On-site road route change
- Flow isolation plate, and
- Hot work.

The procedure discusses the PPE that must be worn and to undertake a field level risk assessment prior to commencing work as well as using a lock out tag out system for working on all cyanide plants. It also requires communication by the maintenance team with the local cyanide department prior to the work commencing and that any unsafe conditions must be reported to the department supervisor.

The safety permit requires a field level risk assessment to be undertaken prior to the work commencing, the use of a buddy system, records of tagging out, checking of PPE, undertaking flammable and toxicity tests. The permit is signed by the employee, the safety manager and department manager.

The Facility does solicit and considers worker input in developing and evaluating health and safety procedures.

Employees have opportunities to make suggestions regarding the procedures via 'written suggestions' that they can place in suggestion boxes, give to their shift leader who passes it to the supervisor. The company identifies representatives of occupational health and safety affairs, and participates in the communication, participation and negotiation of occupational health and safety affairs, including:

- Formulation and review of risk management policies
- Occupational health and safety objectives formulation and review
- Participate in the review of hazard identification, risk assessment and risk control planning
- Negotiate changes affecting workplace occupational health and safety.

The Special Emergency Plan for Major Hazard Source Accidents details the areas where the risk of hydrogen cyanide and cyanide dust is considered high and PPE including either a respirator with a filter (appropriate for cyanide) or with oxygen is worn.

In Emergency Response Plans (ERPs), solid cyanide workshop, solid cyanide warehouse, HCN production facilities, laboratory, liquid cyanide tank farm and sodium cyanide contaminated waste incinerators have been identified where may be exposed to hydrogen cyanide gas and/or cyanide dust.

During inspections of the facilities workers were observed to be wearing PPE as outlined in the procedures and signage displayed in the work area.

The Facility uses monitoring devices and associated alarms 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 8-hour, as cyanide.

A combination of fixed and portable monitors is used at the facility. The fixed monitors are set to alarm at 2.5 ppm for high alarm, 5.0 ppm for high-high alarm and the portable monitors are set to alarm at 4.7 ppm for high alarm and 10.0 ppm for high-high alarm. Portable monitors are used for task specific activities, and the fixed monitors are to provide detection of an issue with the process.

When HCN gas levels trigger the alarm levels, the Site operator shall evacuate the Site area immediately. The emergency treatment personnel must wear air breathing apparatus and wear heavy protective clothing to the Site to find out the leakage source and block the leakage.

The HCN monitoring equipment is maintained, tested and calibrated according to manufacturer's recommendations. The records are retained for three years. There are fixed detectors within the plant area and portable detectors used for task specific activities. Calibration certificates were reviewed for the monitoring equipment.

The Facility has a buddy system which requires employees to work in two for posts involving cyanide exposure. All operators have explosion-proof radio communication to communicate with the associated process control room. Inspectors and workshop directors are also equipped with explosion-proof mobile phones.

The Facility assesses the health of employees to determine their fitness to perform their specified tasks.

All workers have a medical examination every year at the local hospital (Yuanshi Shuanghui Hospital). The medical includes checking blood pressure, lung capacity, electrocardiography (ECG), blood, urine, liver scan, nervous system, ear examination, nose and pharynx, blood eosinophil count, pure hearing threshold test air conduction and depending upon the working location and duration of the employee.

The Site has records for each worker detailing the date of the examination and whether they have passed.

Additionally, the site conducts fit tests before using respirators to ensure that individuals are suitable for the half-face respirator, full-face respirator, and Self-Contained Breathing Apparatus (SCBA).

The Process Operational Rules state that all employees are not allowed to take their work clothes out of the work area. They need to take a shower after getting off work and change their clothes before leaving. Store poison-contaminated clothes separately and wash them thoroughly with a washing machine in the workshop before wearing them.

Visitors are supplied with laboratory coats for use while visiting the facility.

Additional PPE is required in the packaging area including the use of coveralls, gloves and full-face respirators. Personnel leaving the packaging facility must head via changing room for shower and clothes change.

Warning signs advising workers that cyanide is present and that, if necessary, suitable PPE must be worn, are located around the Facility.

Warning signs for both sodium cyanide and hydrogen cyanide are placed in all process and storage areas. The signs include PPE requirements.

Warning signs were observed to be located on the outside of the warehouse buildings at entrance points and within the warehouse on the outside of the IBCs. Warning signs were present at the Workshop 801, Workshop 810 and Solid Cyanide Warehouse.

According to Sodium Cyanide Personal Protection and Emergency Management Procedure, all personnel are prohibited from smoking, eating and drinking, and having open flames in areas where there is the potential for cyanide contamination. All process and storage areas have signs stating no smoking, no eating or drinking and no open flames.

STANDARD OF PRACTICE 2.2

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

☒ in full compliance with

The operation is

☐ in substantial compliance with Standard of Practice 2.2

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 2.2



Hebei Chengxin Co., Ltd.

Name of Facility

Hongtao Jin

Signature of Lead Auditor

22 June 2026

Date

The Facility has developed specific written emergency response plans for cyanide exposures and an On-Site Disposal Plan to illustrate detailed treatment procedure after a spill or exposure. The detailed response processes have been specified to cyanide exposure through ingestion, inhalation, and absorption through the skin and eyes in these documents.

The persons interviewed knew to relocate exposed person offsite and remove contaminated clothes, inject exposed person with cyanide resistant injection, rinse the contaminated part with moving water, contact the first-aid clinic and hospital for emergency care.

Showers, eye wash stations and non-acidic fire extinguishers are located at strategic locations throughout the Facility. They are maintained and inspected on a regular basis. The inspection and maintenance details have been specified in Emergency Equipment, Materials Inspection and Maintenance Procedure. The maintenance items include water supply pressure, water spray pattern, tidiness of the stations.

The Facility has an annual preventative maintenance and inspection program. Detailed inspection and maintenance requirements have been specified in the Emergency Equipment, Materials, Medicine Inspection and Maintenance Procedure. Minor deficiency observed in the Sulfuric Acid Pump Station and been corrected immediately during audit.

Dry powder fire extinguishers were observed throughout the Facility. No carbon dioxide fire extinguishers were observed throughout the cyanide facility areas.

The Facility is equipped with oxygen, resuscitators, antidotes and communication system or emergency notification method that is readily accessible for use.

Onsite inspection of the facility confirmed that operators are equipped with explosion-proof radio communication devices or explosion-proof mobile phones, and antidotes are stored strategically throughout the plant. Oxygen and resuscitator are available in the medical room on the site. Water is available around the plant through safety showers and fire hydrates.

Personnel interviewed were aware of the location of antidotes and the emergency notification process. Inspection records sampled during the audit period were found to be well organized.

The Facility inspects its first aid equipment regularly to ensure that it is accessible when needed. The first aid and emergency response equipment (including oxygen kits) are stored and tested in accordance with the manufacturer's instructions and replaced as scheduled to ensure their effectiveness at the time of use.

The antidotes' instructions indicate they should be stored at room temperature and protected from the sun. The antidote was stored appropriately and within its expiry date.

The doctors at the Site's first aid clinic inspect the oxygen bottles and resuscitators in the clinic every week.

Fire extinguishers are sent in rotation to an off-site facility and refilling as required by the manufacturer. Fire extinguishers have been inspected and within service duration.

Safety Data Sheets, first aid procedures or other informational materials regarding cyanide safety are provided in the local language understood by the workforce and are available to workers in areas where cyanide is handled.

All signages and procedures are in Chinese, the official language. The SDS has been developed in compliance with global harmonized system (GHS) requirements.

Information boards have been erected at the cyanide handling areas of the plant that detail hazards and precautions. The drum and IBC labels also provide information on cyanide hazards.

Storage tanks, process tanks, containers and piping containing cyanide are identified to be labelled clearly to alert workers of their contents.

The flow direction of the pipes is clearly shown.

The Facility has a decontamination policy or procedure for employees, contractors and visitors leaving the areas where there is a risk of skin exposure to cyanide.

Process Operational Rules have specified the requirement of using and replacing personal protection supplies for employees, visitors, and contractors before and after entering the Cyanide Production Units.

Before leaving work, employees must go to the workshop locker room to change and clean the protective equipment used during their shift and put them in the designated area.

It is forbidden to wear labor supplies home, and the used protective equipment is not allowed to be resold or disposed of improperly. The used labor supplies must be returned to the recycling box designated by the workshop, where they will be handled uniformly. All employees in the cyanide production units have their clothes laundered on site by the department.

Visitors are supplied with laboratory coats for use while visiting the facility.

Additional PPEs are required in the packaging area including the use of coveralls, gloves and full-face respirators. Personnel leaving the packaging facility must proceed to the changing room for a shower and clothes changing.

Interviews and site inspection confirmed that the decontamination procedure is implemented and followed.

The Facility is equipped with on-site first aid capabilities for workers exposed to cyanide, but not higher-level medical assistance. The Site has an on-site first-aid clinic operational 24 hours a day, staffed by two fully qualified doctors.

According to the instruction manual of cyanide antidote provided by the Site, the formulation of cyanide antidote is confidential, which is described as a colorless or light-yellow clear liquid.

The Facility has provided training on the proper use of cyanide antidotes for all employees who may be exposed to cyanide. Based on random interviews with on-site personnel, it has been confirmed that these employees are familiar with the proper use of such antidotes.

The Facility has developed a procedure to transport exposed workers to locally qualified, off-Site medical facilities.

The Emergency Response Plan for Production Safety Accident details the procedure to transport workers to local medical facilities. The Site would use either their own cars or in the case of serious injury or exposure they would call the emergency services at the nearest hospitals (Yuanshi Shuanghui Hospital) located approximately 10 minutes' drive from the Site.

The Facility has made formalized arrangements with local medical facilities of the potential need to treat patients for cyanide exposure, and the Facility is confident that the medical provider has adequate, qualified staff, equipment, and expertise to respond to cyanide exposures.

The Facility has signed a Medical Rescue Cooperation Agreement with Yuanshi Shuanghui Hospital. Yuanshi Shuanghui Hospital is the designated cooperative unit for medical services of the Site. It will undertake the emergency medical treatment of the venue, provide green medical channels for the Site, and provide 24-hour medical services.

The facility has toured the hospitals and Dr Yongyao Liu advised that the hospital is satisfied that the facilities have suitable staff and equipment to respond to cyanide exposures.

The Occupational Disease Hazard Status Evaluation report and Production Safety Accident Emergency Plan are in place to investigate and evaluate cyanide exposure incidents to determine if the operations programmes and procedures, to protect worker health and safety and to respond to cyanide exposures, are adequate or need to be revised.

It details an accident classification system which determines the type of investigation required, and the accident report process and accident communication process. The most serious accident and exposures require investigation by the government or an outside party. For accidents where no working day is lost the investigation is to be undertaken by the cyanide department along with the safety engineer to determine the root cause of the incident.

The accident and treatment report details the accident, the accident analysis, the prevention measures, and the person responsible. It proceeds to a corrective measures section which tabulates the hazard, corrective measure, date for implementation and the responsible person.

There have been no cyanide exposure or cyanide release incidents reported during the audit period.

The non-cyanide-related incidents response process has also been specified in the Emergency Response Plan for Production Safety Accident. As reported, no recordable incident has occurred within last three years.

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
☐ in substantial compliance with Standard of Practice 3.1
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 3.1.

The Facility does not have any direct wastewater discharge to surface waterbody.

Monthly monitoring results of discharges from the Site wastewater treatment plant, from 2023 to 2025 are provided for review. The test results of total cyanide are between 0.004 mg/L (detection limit) to 0.14 mg/L in last three years, which is conducted in accordance with the standard method in Chinese National Analytical Standard No. HJ484-2009 (Nicotinic acid-pyrazolone spectrophotometric method), with detective limit of 0.004mg/L.

The Facility does not have any direct wastewater discharge to surface water.

The treated effluent from the wastewater treatment station is conveyed to the reclaimed water reuse system for advanced treatment. The resulting reclaimed water—commonly referred to as “reclaimed water” in industrial contexts—is fully recycled for process water use. Concentrate generated by the system is directed to a mechanical vapor recompression (MVR) evaporator for zero-liquid-discharge (ZLD)-oriented evaporation and resource recovery. During a scheduled major maintenance shutdown of the reclaimed water reuse system, wastewater will be temporarily diverted to the Huaidong Municipal Wastewater Treatment Plant of Yuanshi City. Following secondary or tertiary treatment commensurate with discharge standards, the treated effluent will be discharged into the Huai River—the designated receiving water body—under Pollutant Discharge Permit valid to July 02, 2030.

Separated stormwater drainage system was observed onsite. Initial stormwater runoff—the portion of surface runoff generated within the first 15 minutes following rainfall onset—was conveyed to and retained in the dedicated initial stormwater retention basin (1,200 m³) and subsequently transferred to the on-site wastewater treatment facility for integrated treatment and the reclaimed water reuse system for advanced treatment and re-use. Initial stormwater originating from tank farm areas is directed to a dedicated emergency wastewater collection basin and then conveyed to the same on-site wastewater treatment facility for integrated treatment and the reclaimed water reuse system for advanced treatment and re-use.

Stormwater runoff- the portion of surface runoff generated after 15 minutes following rainfall onset- was pumped to municipal stormwater drainage system, then be discharged into the Huai River—the designated receiving water body—under Pollutant Discharge Permit valid to

July 02, 2030. No total cyanide was monitored before stormwater discharge to the municipal stormwater drainage system last year.

The WAD cyanide concentration of wastewater from the discharge of the wastewater treatment plant is monitored quarterly, and the sampling point is located in the reservoir in front of the discharge. Quarterly monitoring results indicate that the concentrations of total cyanide have been less than 0.5 mg/L for the years 2023, 2024 and 2025.

The WAD cyanide is tested in accordance with the standard method in Chinese National Analytical Standard No. HJ 484-2009 (Nicotinic acid-pyrazolone spectrophotometric method), with detective limit of 0.004mg/L.

In the normal operation, the Facility does not have any indirect wastewater discharge to surface water. During a scheduled major maintenance shutdown of the reclaimed water reuse system, wastewater will be temporarily diverted to the Huaidong Municipal Wastewater Treatment Plant of Yuanshi City. Following secondary or tertiary treatment commensurate with discharge standards, the treated effluent will be discharged into the Huai River—the designated receiving water body—under the Municipality wastewater plant's Pollutant Discharge Permit valid to September 10, 2030.

According to the Monitoring and Measurement Procedure (HBCX-CXWJ-22), revised on August 1, 2025, the WAD cyanide is subject to weekly internal testing conducted by the Site's accredited Testing Center. The WAD cyanide concentration of wastewater from the discharge of the wastewater treatment plant is monitored weekly, and the sampling point is in the reservoir in front of the discharge. Weekly monitoring results indicate that the concentrations of WAD cyanide have been less than 0.5 mg/L for the years 2023, 2024 and 2025.

According to the monitoring results of Huaidong Municipal Wastewater Treatment Plant of Yuanshi City disclosed in the Self-monitoring platform of Shijiazhuang City, the WAD cyanide is subject to quarterly testing and monitoring results dated January 09, June 19, August 20 of 2025 and January 05 of 2026 were 0.001 mg/L. The WAD cyanide is tested in accordance with the standard method in Chinese National Analytical Standard No. HJ484-2009 (Isonicotinic Acid and Barbituric Acid), with detective limit of 0.001mg/L.

According to the self-monitoring data disclosed by Huaidong Municipal Wastewater Treatment Plant (Yuanshi City) on the Shijiazhuang Municipal Ecological Environment Monitoring Platform, weak-acid-dissociable (WAD) cyanide is monitored quarterly. The measured concentrations—0.001 mg/L—were reported on January 9, June 19, August 20 of 2025 and January 5 of 2026, respectively. All analyses were performed in accordance with HJ 484-2009, "Water Quality—Determination of Cyanide—Spectrophotometric Method Using Isonicotinic Acid and Barbituric Acid", which specifies a method detection limit (MDL) of 0.001 mg/L.

The Facility develops a soil and groundwater monitoring plan and engages a certified 3rd party to conduct soil and groundwater water monitoring on annual basis.

A total of seven groundwater monitoring wells have been installed on-site, including one upgradient reference well. Soil and groundwater monitoring reports issued since 2023 indicate the concentrations of total cyanide were below the Minimum Detectable Limit (MDL) of 0.001 mg/L. The local regulatory acceptance criterion is 0.05 mg/L total cyanide. The results for the audit period were below the acceptance criteria.

There is no protected drinking water area near the Site, and the groundwater in the area is not used as drinking water for humans or livestock.

Four groundwater wells have been designated as emergency backup production water sources to ensure continuity of water supply in the event of municipal tap water service interruption.

According to the site representative, the four groundwater wells have been utilized for one to two days annually over the past three years.

Seepage from the Facility has not caused the concentration of cyanide in the groundwater to exceed that necessary to protect its beneficial use.

In Chapter 19 Environmental Protection and Remediation Procedure for Soil and Water Body Contamination of Environmental Management Procedure, remedial activity to prevent further degradation and restore beneficial uses have been specified in event of cyanide contamination to address potential soil and groundwater contamination.

The Facility limits the atmospheric emissions of hydrogen cyanide (HCN) such that the health of workers and the community are protected.

There are Nine HCN point-source emissions at the Facility:

- HCN generated from hydrocyanic acid distillation process and de-cyanide tank are captured and treated by alkali absorption, then discharged to atmosphere via 25-m exhaust stack (DA-001)
- HCN generated from Hydrogen cyanide (HCN) metering tank are captured and treated by alkali absorption, then discharged to atmosphere via 25-m exhaust stack (DA-002)
- HCN generated from Sodium cyanide drying process are captured and treated by Cyclone dust removal and water washing and then discharged to atmosphere via four 25 m exhaust stacks on the roof of 810 workshop (DA-004, DA-005, DA-006 and DA-007).
- Emissions from the liquid cyanide manufacture system are captured and recycled as a raw material in ammonia production. HCN generated from ammonia production, burned by steam generator, then discharged to atmosphere via a 25 m exhaust stack (DA-015).
- HCN generated from the distillation tail gas of phenylacetonitrile, the cyanation of phenylacetonitrile and the filling of phenylacetonitrile is combusted in the boiler, then discharged to atmosphere via one 80-m exhaust stack (DA-020).
- HCN generated from Sodium cyanide MVR process are captured and treated by Cyclone dust removal and water washing and then discharged to atmosphere via One 25-m exhaust stack (DA-027).

The Facility engages external qualified agency to conduct HCN monitoring for point source and HCN fugitive emission at boundary on quarterly basis.

The HCN emissions are tested in accordance with Chinese National Analytical Standard No. HJ /T 28-1999. Hydrogen cyanide (HCN) emissions from exhaust stacks DA001, DA002, and DA020 are governed by the Integrated Emission Standard of Air Pollutants (GB 16297-1996), with a maximum allowable concentration of 1.9 mg/m³; emissions from all other exhaust stacks are regulated under the Emission Standards for Pollutants from the Inorganic Chemical Industry (GB 31573-2015), with a maximum allowable concentration of 0.3 mg/m³. Quarterly monitoring results of Nine HCN point sources from 2023 to 2025 indicated that the concentration of HCN of these point sources was below the regulatory compliance limit. Additionally, fugitive HCN emissions at boundary from 2023 to 2025 were not detected at the

site boundary and below the MDL of 0.002 mg/ m³, which were below the regulatory compliance limit (0.0024mg/).

No liquid hydrocyanic acid is stored on site.

Monitoring is conducted at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner.

The frequency of monitoring undertaken at the cyanide facility is:

- Wastewater discharges – monthly manual monitoring and continuous online monitoring on COD, PH and NH3-N
- Air emissions – quarterly monitoring for point source emission and fugitive emission
- Soil and ground quality – annually monitoring

These frequencies are in compliance with the legal requirements and considered adequate in the operating circumstances to meet Code requirements.

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.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 4.1

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 4.1.

The Facility provides training to workers to understand the hazards of cyanide and refresher training is periodically conducted. New employees receive three levels of training comprising company, departmental and operational level training.

Company-level training consists of three days of classroom training. All employees receive a booklet titled 'Safety Training material' during the training. These booklets are available after the course in the control room of cyanide department.

Departmental level training consists of three days' training. The training takes place in both the meeting room and on Site to demonstrate the chemical hazards, emergency response and PPE. The new employee will be familiar with the entire operation of the cyanide production plant. For the staff who may come into contact with cyanide, the training will cover the topics of the health effects of cyanide, the symptoms of cyanide exposure, and the procedures to follow in the event of exposure.

Operational level training consists of three days training on Site within the cyanide department relevant to new employee's role. Each employee is paired with an experienced worker who teaches them how to operate the machinery in that area. During the three days they do not operate the machinery independently, culminating in an examination at the end of the three days. In addition, they go through the operating procedures.

Refresher training is provided in the form of monthly training sessions. Each month the safety adviser of the Cyanide Production Units delivers training that lasts approximately two hours.

72 hours are required for the new employee training and 24 hours are required for the refresher training at least.

Interviews with personnel and a review of training records confirmed that workers receive training on cyanide hazards prior to commencing work, along with regular refresher sessions.

The training plan includes training dates and training time, training topic, trainer, training location.

The Facility provides training for workers on the use of personal protective equipment (PPE), including when and where the PPE is required.

PPE training covers all three levels of training (company, departmental and operational). There are specific management and departmental procedures for the selection, storage, use and maintenance of PPE for different operations within the cyanide department.

Interviews with employees confirmed that training on how and when to use PPE is provided.

The Facility trains workers to perform their normal production tasks with minimum risk to their health and safety, and in a manner that prevents unplanned cyanide releases.

The Safety Production Management Procedures and Process Operational Rules outline the requirements for safely undertaking specific tasks, including the use of PPE prior to undertaking certain tasks. New employees are paired with an experienced person to gain practical experience, with supervision from the area supervisor.

According to the Process Operational Rules, all employees must complete 72 hours of training for new employees prior to handling cyanide. The training records are provided for review as evidence.

Refresher training in normal production tasks has been provided to ensure that employees continue performing their work in a safe and environmentally protective manner.

Refresher training is provided through monthly training sessions which include cyanide-related work tasks. Each month the safety adviser for the cyanide department delivers training that lasts approximately two hours. A minimum of 24 hours are required for the refresher training to all employees. A test is required for each training.

The training components required for each job are outlined in training materials.

These components include the physical and chemical properties of cyanide, fire prevention, personal protection equipment, emergency response to cyanide exposure and release, critical hazards prevention, and specific training resources related to each role.

As interviewed with Site employees, it is evident that they possess a clear understanding of how to perform cyanide-related tasks and respond effectively in emergencies.

The Facility has 46 personnel with safety management certificates for the whole site. Internal training sessions are provided for the employees by these qualified personnel.

External training sessions are conducted by qualified agencies, including the local safety bureau, the environmental protection bureau, the fire department, and the special equipment management authority.

The Facility evaluates the effectiveness of cyanide training by testing. There are questionnaires used for the tiered induction training and are retained for records. Tests are also conducted after the annual refresher training and monthly training.

New employees are paired with an experienced person who demonstrates the tasks and observes the performance of the workers.

STANDARD OF PRACTICE 4.2

Train employees to respond to cyanide exposures and releases.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 4.2

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 4.2.

The Facility provides training for workers on the process to take in the event of cyanide exposure or release.

Employees receive training on these procedures through various channels, including company-wide, departmental, and operational training sessions, as well as regular monthly and weekly workshops. A team of 14 qualified safety management professionals serves as trainers, ensuring comprehensive instruction and support.

Also, workers are required to attend the mock drills to evaluate the effectiveness of emergency response process. Workers interviewed could describe the response processes including evacuation to an upwind location, use of safety showers, reporting the incident and use of antidote. The Site also has appointed emergency responders who receive training on higher level response actions.

The Facility provides training to workers to respond to cyanide exposure and cyanide releases. Routine mock drills are conducted to test and improve their response skills.

The Facility has conducted mock drills for workers simulating cyanide exposure and release scenarios in Workshop 801 and Workshop 810. The drills are recorded, and reports evaluate the effectiveness of the exercise along with opportunity for improvements.

Training records are retained for the duration of an individual's employment, documenting the training they have received. The records include the names of the employee and the trainer, the date of training, the topics covered, and how the employee comprehends the training contents.

Training files for employees in cyanide production units were reviewed, which contained evidence of training, including course content, evaluation and certificates. All workers received training on personal protective equipment and emergency response procedures in the event of a spill or exposure in monthly and annual training sessions.

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.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 5.1

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 5.1.

The Facility developed an Emergency Response Plan to address potential releases of cyanide that may occur on Site or may otherwise require response.

The following emergency response plans were provided for review:

- Emergency Response Plan for Production Safety Accident outlines general response for cyanide related accidents, Section 3.4.2 specifically addresses emergency response measures for potential releases of acutely toxic chemicals, acidic and alkaline materials, and poisoning and asphyxiation incident.
- Emergency Response Plan for Environmental Emergencies details the environmental risk assessment and targets response of cyanide release.
- Special Emergency Plan for Major Hazard Source Accidents in August 2025, covering solid sodium cyanide storage warehouse and hydrogen cyanide solution storage tanks.
- On-site Disposal Plan for Workshop 801, covering Emergency Leakage of Cyanide at Liquid Sodium Cyanide Workshop describe response procedures and actions in the event of cyanide spills for each position in the workshops.
- On-site Disposal Plan for Workshop 810, covering Emergency Leakage of Cyanide at solid Sodium Cyanide Workshop describe response procedures and actions in the event of cyanide spills for each position in the workshops.

The emergency procedures do consider the potential failure scenarios appropriate for its site-specific environmental and operating circumstances conditions.

The emergency procedures do consider the potential failure scenarios appropriate for its site-specific environmental and operating circumstances conditions.

a) Emergency Response Plan for Production Safety Accident states the response in the event of catastrophic release of hydrogen cyanide. When a poisoning accident occurs, the person on Site should immediately evacuate from the Site. Rescuers enter the Site after wearing the positive pressure air respirator or full face heavy protective clothing to avoid rescuer casualties. Quickly move poisoned patients to fresh air, loosen clothing buckles and belts, remove foreign objects from mouth, maintain a clear airway, and pay attention to keeping warm. In the meantime, call High tech central hospital to request an ambulance or send the patient to the hospital by using the vehicles on duty at the Site. If the poisoned person has difficulty breathing, give oxygen. When breathing and heartbeat stop, immediate artificial

respiration (do not use mouth-to-mouth) and cardiopulmonary resuscitation should be performed. Administer one muscle injection of cyanide antidote (Note: Inject 2ml of the antidote intramuscularly, observe for 3-5 minutes; if symptoms do not improve, repeat with half the dose). Transport the patient to the hospital for treatment immediately. No liquid hydrocyanic acid is stored on site.

b) Emergency Response Plan for Environmental Emergencies states the response in the event of leakage of hydrogen cyanide in operation and storage area. Once a leak occurs, a warning zone was established based on the impact area of material diffusion and conduct emergency monitoring of water, air, soil, and groundwater. In the case of small leaks from pipelines, valves, or tank bodies, rescue personnel should immediately identify the leak point and use appropriate equipment such as high-pressure leak stoppers, sawdust, bundling straps, adhesive leak sealing tools, and half-couplings to stop the leak. If there is a large leak, immediately organize the transfer of the liquid. Once the liquid level has dropped to a point where there is no spraying phenomenon at the leak point, proceed with sealing the leak. In the meanwhile, collect and safely dispose of the leaked material to prevent the spread of the leaked substance or its entry into the sewer system.

c) Emergency Response Plan for Production Safety Accident details the response in the event of a release. If the fire is small, on-site personnel use on-Site dry powder fire extinguishers to extinguish the fire themselves. If the condition meets the fire and explosion special accident emergency plan start conditions, will activate the corresponding plan immediately.

d) On-Site disposal plan for Hydrocyanic Acid Workshop, Liquid Cyanide Workshop and On-Site disposal plan for storage area detail the procedure and emergency actions to be taken in the event of rupture to pipes, tanks or valves.

e) The Emergency Response Plan for Production Safety Accidents also addresses scenarios involving the overtop of ponds, tanks, and waste treatment facilities resulting from power outages or equipment failures.

The ERPs have described the necessary information as below:

a) The emergency procedures do describe specific response actions, as appropriate for the anticipated emergency situations, such as evacuating Site personnel and potentially affected communities from the area of exposure. Emergency Response Plan for Environmental Emergencies, section 4.6.2.1 details the evacuation of all people from the incident area to downwind of the incident to an upwind location. The Site has an evacuation alarm that can be used when required. In the case of potentially affected communities the Site has contact information for the surrounding industrial Sites, hospital and fire brigade etc., and the phone calls would be made to inform them in the case of an incident.

b) Emergency Response Plan for Production Safety Accident details the use of cyanide antidotes and first aid measures for cyanide exposure, i.e. cyanide antidote injections. These antidotes are also kept in emergency material storage areas.

c) The ERP outlines actions to take in the event of both small- and large-scale leaks including preventing access to the site drainage and using sand or plastic covers to mitigate the risk of hydrogen cyanide emissions. Additionally, it specifies the need to pump all liquid into containers, prohibits the use of copper or aluminum equipment, and mandates the collection of

contaminated soil into suitable containers. Furthermore, the chapter addresses incidents during loading and dissolution, emphasizing the necessity to identify and utilize appropriate equipment to effectively contain the leak.

d) Containment, assessment, mitigation and future prevention of releases are covered in the Emergency Response Plan for Environmental Emergencies, Chapter 6 to detail the prevention of chemical incidents and Emergency Response Plan for Safety Production, Chapter 4 to detail the safety and health assurance after an accident.

STANDARD OF PRACTICE 5.2

Involve site personnel and stakeholders in the planning process.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 5.2

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 5.2.

The Facility has involved its workforce and stakeholders, including potentially affected communities, in the emergency response planning process.

The emergency response procedures were issued to all departments and each department had specific training days where employees were disseminated information from the procedure and had the ability to comment on the procedure. The responsibilities of all departments have been stated in the procedure.

The Site is situated south of Yuanzhao Road and east of the Yuanshui County Railway Station. The nearest residential settlement is Tietun Village, located approximately 360 meters southwest of the site. A comprehensive on-site environmental survey confirmed the absence of any designated environmentally sensitive receptors—including drinking water sources, nature reserves, protected cultural heritage sites, scenic areas, or other ecologically or historically significant locations—within a 5-kilometer radius of the facility.

Contact details for the internal emergency response team and key external stakeholders—including nearby industrial enterprises, medical institutions, and fire rescue services—are formally documented in the "Emergency Response Plan for Production Safety Accidents".

Residential communities in proximity to the site include:

- Kou Village (670 m east),
- Li Village (580 m southeast),
- Dongjianzhong Village (920 m north),
- Nanjianzhong Village (650 m north),
- Xijianzhong Village (990 m north), and
- Tietun Village (360 m southwest).

Relevant local and municipal government agencies engaged in emergency coordination include:

- Huaiyang Town Government Office,
- Yuanshui County People's Government,
- Yuanshui County Branch of the Shijiazhuang Municipal Ecological Environment Bureau,
- Yuanshui County Fire Rescue Brigade,
- Yuanshui County Shuanghui Hospital,
- Yuanshui County Hospital of Traditional Chinese Medicine,
- Shijiazhuang Municipal Emergency Management Bureau, and
- Shijiazhuang Municipal Ecological Environment Bureau.

Nearby industrial facilities participating in joint emergency preparedness include:

- Hebei Yuanda Intelligent Manufacturing Co., Ltd.,
- Shijiazhuang Kangweishi Medical Technology Co., Ltd.,
- Shijiazhuang Xingquan Pipe Industry Co., Ltd.,
- Hebei Zhongyixin Energy Technology Co., Ltd.,
- Hebei Huikang Daily Necessities Co., Ltd.,
- Hebei Zhongshi Doors and Windows Technology Co., Ltd.,
- Hebei Huayuan Metallurgical Equipment Co., Ltd., and
- Shijiazhuang Shengli Aluminum Factory.

The Facility has informed potentially affected communities about the risks associated with accidental cyanide releases and engaged with them directly or through community representatives to determine suitable communications and response actions.

The Site has communicated with relevant government authorities and neighboring industrial facilities within a 3 km radius for emergency response plans. The representatives from neighboring facilities were invited to site, discussed the major safety hazards and signed to confirm that they have been informed about the major hazards onsite. The signed notification letters were provided for review. Therefore, the measures for risk response have been coordinated with the neighboring facilities, and a communication mechanism for risk response has been established.

The Facility has engaged local response agencies such as external responders and medical facilities in the emergency planning and response process.

During the revision and upgrade of the emergency response plans in 2025, the cyanide facility liaised with, and introduced the emergency response plan for the event of liquid or solid cyanide release, discussed with relevant government authorities and neighboring industrial facilities, including:

- Huaiyang Town Government Office,
- Yuanshui County People's Government,
- Yuanshui County Branch of the Shijiazhuang Municipal Ecological Environment Bureau,
- Yuanshui County Fire Rescue Brigade,

- Yuanshui County Shuanghui Hospital,
- Yuanshui County Hospital of Traditional Chinese Medicine,
- Shijiazhuang Municipal Emergency Management Bureau, and
- Shijiazhuang Municipal Ecological Environment Bureau.

The operation engages in regular consultation and communication with stakeholders to assure that the Plan addresses current conditions and risks as detailed above.

If the impact of the emergency event exceeds beyond the Site area, the emergency leadership team will change to a related government management department.

The operation engages in regular consultation and communication with stakeholders to assure that the Plan addresses current conditions and risks as detailed above.

STANDARD OF PRACTICE 5.3

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

☒ in full compliance with

The operation is

☐ in substantial compliance with Standard of Practice 5.3

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 5.3.

The Emergency Response Plans have included the following information:

a and b): The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) Chapter 2 and Emergency Response Plan for Environmental Emergencies (CXYA-HJYA-2025) Appendix 1, details the following emergency response teams: director, on-Site director, departmental control team, medical team, security team and the support team.

c) Company level and departmental level training in Emergency Response Plan for Environmental Emergencies (CXYA-HJYA-2025) Chapter 8 is undertaken. The emergency response team accepted training in responsibilities, fire information and use extinguisher, on Site emergency procedure training, emergency equipment, including use of SCBAs, administering antidote, hazard identification, different emergency response training, major hazardous sources, management procedure training, hazardous operations training and mock drill training.

d) The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) Section 6.5.2 and Emergency Response Plan for Environmental Emergencies (CXYA-HJYA-2025) Appendix 1 details 24-hour contact information for company leaders and team members are called by radio. Also, the call-out process for initiating a response to a cyanide-related emergency has been specified in the Emergency Response Plans.

e) The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) Chapter 2 and Emergency Response Plan for Environmental Emergencies (CXYA-ZXYA-2025) Chapter 2

details the organizational framework for the company level and responsibilities, it details the responsibilities for the director, the on-Site director, the departmental control team, the medical, security team, and support teams.

f) The emergency resource survey report attach to the Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) and Emergency Response Plan for Environmental Emergencies (CXYA-ZXYA-2025) separately detail all emergency equipment and material prepared internally and externally, which include fire extinguishers (dry power and foam), fire hoses, eye wash bottles, shower and eye wash stations, fire hydrants, fire pumps, high temperature emergency clothing, SCBAs, chemical coveralls, gloves, light oil, HCN and ammonia detectors, emergency lighting, masks, chemical resistant gloves, sand drum, shovel, and cyanide antidote.

g) Inspections of fire extinguishers, cyanide antidotes, eye wash bottles, fire hydrants, SCBAs, PPE, gloves, fixed and portable monitors, emergency lighting and masks, are undertaken are details in section 5.3 of Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025), which specifies that these items must be inspected twice per month.

h) The responsibilities of hospital, fire brigade and the emergency management authority who provide advice on emergency response were detailed in section 5.2 of Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) and Section 2.4 of Emergency Response Plan for Environmental Emergencies (CXYA-ZXYA-2025).

The Facility has confirmed that outside entities included in the Emergency Response Plans are aware of their involvement and are included as necessary in mock drills or implementation exercises.

The Site has invited external responders, including local Emergency Management Bureau, local Marketing Supervisory and Administrative Bureau, Fire Brigade and Hospital attended onsite, to carry out the mock drill for emergency repose plan in June 2025, however only hospital was not attended onsite. The picture of the drill conducted in June 2025 was provided for review.

In addition, the medical staff on duty from the Site has attended all mock drills.

STANDARD OF PRACTICE 5.4

Develop procedures for internal and external emergency notification and reporting.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 5.4

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 5.4.

The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) Chapter 6.5 and Emergency Response Plan for Environmental Emergencies (CXYA-HJYA-2025) Appendix 1 includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the emergency.



Hebei Chengxin Co., Ltd.

Name of Facility

Hongtao Zhu

Signature of Lead Auditor

22 June 2026

Date

The Incident Reporting, Investigation and Dealing Control Procedure (CXYA-CX-16) details the reporting line during incident occurs. The supervisor must be called who reports to the plant manager or vice manager. The plant manager will organize the emergency response team, the outside emergency services and whether to report to the government department and whether to inform the surrounding neighbors.

Contact information for the emergency response team, the on-Site doctor, ambulance, fire and hospital is placed on the safety information adjacent to the tank farms and process control rooms.

The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) Chapter 5.1 Communication and Assurance Section detail the procedure of internal and external communication in the event. And the Communication Procedure (CXYA-CX-06) which details that the supervisor must be called who reports to the plant manager or vice manager. The plant manager will organize the emergency response team, the outside emergency services and whether to report to the government department and whether to inform the surrounding neighbors. The Emergency Response Plan for Production Safety Accident (CXYA-ZXYA-2025) details contact information in the following:

- Fire, hospital and government office (safety department and environmental protection department)
- Surrounding industries.

Contact information for the emergency response team, the on-Site doctor, ambulance, fire and hospital is placed on the safety information adjacent to the tank farms and process control rooms. The Emergency Response Plans have also specified the communicating process with the media in the event of a cyanide emergency.

The operation has a written procedure for notifying ICMI of any significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document.

The Environmental Accident Management Procedure (CXYA-HBC-ZD. Chapter 4) which specified the requirement for significant cyanide incidents as: If any significant cyanide incidents occur, Hebei Chengxin will report to the international trade department of Chengxin Group. International trade department will notify ICMI.

As interviewed, no such significant cyanide incidents have occurred.

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.

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 5.5

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The Facility is in FULL COMPLIANCE with Production Practice 5.5.

The Emergency Response Plan for Environmental Emergencies (CXYA-HJYA-2025), describes specific, appropriate remediation measures, such as recovery or neutralization of solutions or solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris, and provision of an alternate drinking water supply, as appropriate. The Sodium hypochlorite (the concentration is 10%) transferred from other workshops within the Site will be used to treat the leakage for neutralization.

According to Environmental Management System, Chapter 20 Environmental Monitoring Management Procedure, if a spill accident occurs, the soil at the accident area and the surrounding area will be tested after the accident is over, and the contaminated soil will be collected in time and sent to the incinerator for incineration". The final (maximum) concentration allowed in the residual soil is: 135mg/kg, which is Class II limit in the standard of Soil environmental quality-Risk control standard for soil contamination of development land (GB 36600-2018).

The Water Bodies, Soil Pollution Prevention and Remediation Control Procedures (Chapter 19) of Environment Management Procedures (CXYA-HBC-ZD) Section 4.4 details that remedial measures of groundwater and soil, including remove soil using machinery or manual labor, including excavation, post-treatment, disposal, and reuse of excavated soil across various restoration stages.

The on-site drinking water system is kept separate from the process water supply pipeline. When drinking water is needed, the site will procure bottled water through an existing contract with a supplier. The site also remains connected to the municipal water supply network.

There is no surface water on the Site or within 7.5 km of the Site therefore the question is not applicable.

Emergency Response Plan for Environmental Emergencies, Section 4.5.2 details the emergency monitoring plan for a release. Additionally, the site has monitoring instruments for water in on-site laboratories and HCN gas detectors were installed at production area with cyanide.

The on-Site laboratory has capacity to test water samples for WAD cyanide using EDTA titration and gas chromatography methods. The groundwater was regularly monitored by Ningxia Anpu Monitoring Testing Co. Ltd, in accordance with the *Standard examination methods for drinking water—Part 5: Inorganic nonmetallic indices GB/T 5750.5-2023 (Section 7. Cyanides- 7.1 Isonicotinic Acid - Pyrazolone Spectrophotometric Method)* . Additionally, the Ningxia Anpu Monitoring Testing Co. Ltd has been included in emergency monitoring team, with the contact information appendix 2 of Emergency Response Plan for Environmental Emergencies.

STANDARD OF PRACTICE 5.6

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

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 5.6

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:



Hebei Chengxin Co., Ltd.

Name of Facility

A handwritten signature in black ink, appearing to read "Hongtao Zhu", is written over a horizontal line.

Signature of Lead Auditor

22 June 2026

Date

The Facility is in FULL COMPLIANCE with Production Practice 5.6.

The ERPs include provisions for annual reviewing and evaluating its adequacy. The evaluation is undertaken by the vice president, managers, safety engineers, departmental managers and emergency response team members.

The requirements for periodically evaluating response procedures and capabilities have been described in the ERPs. And the revision records have been kept for review during audit.

Mock emergency drills are conducted periodically to test response procedures for various exposure scenarios, and the lessons learned from the drills are incorporated into emergency response planning.

The whole of the Hebei Chengxin Site undertakes four emergency response drills for Major Hazards each year in accordance with Chinese regulations and the facility's Safety Management System (CXYA-CX-2025).

The cyanide manufacturing facility (Workshop 801 and 810) also undertakes on-site disposal drill once per month.

Examples of the drill reports for the following scenarios over the last three years were reviewed:

- Practice emergency evacuation due to HCN gas release. This mock drill is mainly to simulate the emergency drill of hydrogen cyanide poisoning caused by a leak at the flange connection of the pipe at the root of the intermediate tank of sodium cyanide. Fire response (Emergency drills after a fire, including rescue, disposal of pollutants after a fire, etc.)
- Fire extinguisher training
- Cyanide poisoning response (post-incident handling drills in the event of cyanide poisoning.)
- Light oil spill and fire, which mainly include the mock drill for an environmental release, how to clean up the spilled contaminants and how to deal the fire event which caused by the oil spill.

For each drill the following is recorded:

- Description of emergency scenario
- Record of training attendance and assessment
- Photographs of the event.

Independent Emergency Drill Reports are prepared to identify the deficiencies of the ERP, which also simulate the entire emergency response process from the initial emergency callout notification through to the close-out of the response process. And an updated version to address the deficiencies is prepared after the drill as required.

There are provisions to evaluate the Plan after any emergency and for revising it as necessary. The operation has not had the need to implement the plans during the audit period, but revisions have been made following mock exercises and periodic review to keep the plans updated.

7.0 IMPORTANT INFORMATION

Your attention is drawn to the document titled – “Important Information Relating to this Report”, which is included in **Appendix A** of this report. The statements presented in that document are intended to inform a reader of the report about its proper use. There are important limitations as to who can use the report and how it can be used. It is important that a reader of the report understands and has realistic expectations about those matters. The Important Information document does not alter the obligations ERM (Shanghai) Limited has under the contract between it and its client.



APPENDIX A IMPORTANT INFORMATION RELATING TO THIS REPORT

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by ERM (Shanghai) Limited ("ERM") subject to the important limitations and other qualifications set out below.

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Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed ERM to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by ERM or otherwise made available to ERM. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to ERM when the Services were performed and this Report was prepared. ERM has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

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