

# Gorubso Kardzhali AD

Enrichment Plant

## International Cyanide Management Code

Mining Operations Recertification Audit

Summary Audit Report



31 March 2026



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# 1. AUDIT DETAILS

## 1.1 Operation

Gorubso Kardzhali AD - Enrichment Plant

## 1.2 Owner

Gorubso Kardzhali AD

## 1.3 Operator

Gorubso Kardzhali AD

## 1.4 Responsible Person

eng Veneta Ilieva – Environmental Manager

## 1.5 Address

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## 1.6 Contact Information

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## 1.7 Audit Dates

The site audit was conducted from 20 to 23 October, 2025.

## 1.8 Description of Operations

The Gorubso Kardzhali (GK) facility is located in southeastern Bulgaria, within the town of Kardzhali. The town is situated about 260 km southeast of Sofia. The facility processes gold ore obtained from the nearby open pit Chula mine. The mined ore is transported to the plant by truck, where it is stored temporarily in a stockpile. The ore is then transferred to the Crushing Plant, where it undergoes two stages of crushing. The first stage uses a jaw crusher, followed by a cone crusher. The crushed ore is sent to the Milling Plant, where it is ground in a ball mill. Once processed, the pulp is passed through a series of vibration sieves before it is sent to the Knelson concentrator for gravity separation.

The Knelson concentrator efficiently separates gold-bearing concentrate through gravity-based methods. This concentrate is periodically extracted and reintroduced into the milling circuit for further processing. Residual tailings are directed to the Carbon-in-Leach (CIL) circuit, where cyanide is applied to dissolve remaining gold from the ore.

A dedicated reagent facility manages the preparation and precise dosing of sodium cyanide solutions. This facility is equipped with systems for mixing, dosing, and continuous monitoring of the cyanide solution. Automated control systems ensure accurate and consistent reagent delivery. Critical parameters, including cyanide concentration and pH are tracked using integrated sensors and meters. Sodium cyanide briquettes are used as the primary source material for solution preparation.

Gold recovery is achieved through a multi-step process. The first step involves leaching the gold ore with sodium cyanide in large, mechanically agitated reactors. Gold is then adsorbed onto activated carbon, which is pumped

through a series of five adsorption reactors. The gold-loaded carbon undergoes a cyclic elution process where heated sodium cyanide and sodium hydroxide solutions are used to desorb the gold. Finally, the gold-rich solution is subjected to electrolysis, which recovers the gold. The recovered gold is then filtered, dried, and smelted into dore bars.

To eliminate any residual cyanide in the tailings, the Inco-process is applied. This process involves the addition of sodium bisulfite, and occasionally copper sulfate, to break down the cyanide into less harmful substances such as cyanates and thiocyanates. The final cyanide concentration in the tailings is reduced to less than 0.5 mg/l. After detoxification, the tailings are sent to the Kardzhali, Tailings Storage Facility (TSF) for long-term storage.

The cyanide facilities at Gorubso Kardzhali have not changed since the previous audit. The main components of the cyanide facilities include the Cyanide Storage Warehouse, a Mixing Area with one mixing tank and one storage tank for high-strength cyanide, the CIL Area, which features one agitator column and five CIL columns, the Elution and Carbon Regeneration Area, which includes an elution tank, copper stripping tank, carbon regeneration machine, filter press, carbon attrition silo, activated carbon silo, and carbon fines tank, and the Cyanide Destruction Area, which houses a column for the sulfur dioxide and air (Inco) process. Additionally, the facility includes supporting infrastructure such as pipes, pumps, sumps, and containment systems.

Some facilities are excluded from being classified as cyanide facilities because of the design of the plant, which ensures that the effluent from the cyanide destruction circuit consistently remains below the 0.5 mg/l WAD cyanide limit outlined in the Code (refer to 4.1.1). These facilities include the Pipeline from Cyanide Destruction Area to Day Pond, the Day Pond, the TSF, and the Pipelines to and from the TSF.

## 2. AUDITOR INFORMATION

### 2.1 Audit Company

**Cyanide Audit Services**

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6 Cowper Road Sorrento

WA 6020 Australia

### 2.2 Auditor

**Lead Auditor and Technical Specialist** – Rudi Seebach

### 2.3 Contact Details

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### 2.4 Auditor Attestation

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit Lead Auditor, as established by the International Cyanide Management Institute (ICMI) and meet the applicable criteria established by the ICMI for Code Auditors.

I attest that this Audit Report accurately describes the findings of the recertification audit. I further attest that the audit was conducted in a professional manner in accordance with the International Cyanide Management Code's *Mining Operations Verification Protocol* (June 2021) and using standard and accepted practices for health, safety and environmental audits.

Gorubso Kardzhali AD –  
Enrichment Plant



8 January 2026

**Operation**

**Signature of Lead Auditor**

**Date**

### 3. AUDIT FINDING

The operation is:

- IN FULL COMPLIANCE
- IN SUBSTANTIAL COMPLIANCE
- NOT IN COMPLIANCE

With the International Cyanide Management Code.

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

## 4. PRINCIPLES AND STANDARDS OF PRACTICE

### Principle 1 – Production and Purchase

#### Standard of Practice 1.1

**Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 1.1

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 1.1; to purchase cyanide from certified manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

The cyanide purchased by the operation was manufactured at a facility certified in compliance with the Code. All solid cyanide briquettes used at GK's processing facilities during the audit period was sourced from Lučební závody Draslovka (Draslovka) Kolín Plant in the Czech Republic, as confirmed by GK's purchase orders and invoices. Draslovka's facility, where the cyanide was produced, maintained valid Cyanide Code certification throughout the certification period.

## Principle 2 – Transportation

### Standard of Practice 2.1

**Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 2.1

not in compliance with

#### **Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 2.1; requiring that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.

The operation maintains documentation identifying all transporters and supply chains responsible for transporting cyanide from the producer to the site. Draslovka provided records confirming that the cyanide was transported by C.B. SPED a.s., which held valid Cyanide Code certification throughout the certification period.

## Principle 3 – Handling and Storage

### Standard of Practice 3.1

**Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 3.1

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 3.1; design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/ quality assurance procedures, spill prevention and spill containment measures.

Facilities for unloading, storing and mixing cyanide has been designed and constructed in accordance with cyanide producers' guidelines, applicable jurisdictional rules and/or other sound and accepted engineering practices for these facilities.

GK's cyanide unloading and storage facilities were constructed in accordance with accepted engineering standards, as concluded during the initial ICMC audit in 2015. The warehouse used for storing boxed solid cyanide and the associated mixing area have remained unchanged since that audit. The Auditor inspected the facilities and confirmed that both the cyanide storage warehouse and the mixing area were in good operational condition.

At the GK sites, cyanide storage and unloading facilities are positioned well away from administrative areas and surface water sources. The warehouse is secured with a locked entry and alarm system. The plant building housing the mixing area is clearly marked to restrict access to authorised personnel only.

Municipality have received copies of the Internal Emergency Plan (IEP) and maintain regular communication with GK. To enhance safety, a hydrogen cyanide (HCN) monitor is installed at the truck gate of the industrial complex.

The nearest surface water body is the Arda River, situated roughly 370 metres from the warehouse and about 120 metres from the mixing area. The mixing operations are conducted within a designated secondary containment zone inside the plant. Drainage from this area flows into a stormwater sump, which recycles the water back into the process circuit.

GK does not handle or receive liquid cyanide. GK has established and implemented engineering controls to prevent overfilling of both the cyanide mixing and storage tanks. Each tank is fitted with a dedicated ultrasonic level sensor.

The mixing tank sensor provides a digital readout at the mixing area and transmits data to the control room. An alarm threshold is set at 90% capacity; once reached, a visual alert (blinking light) is activated at the tank, and the water addition pump is automatically shut off.

Testing of the ultrasonic level sensor is carried out through visual inspection of the indicator light, in accordance with Siemens' operating manual, on a scheduled basis. Records of high-level alarm calibration and automatic shut-off testing were available for the audit period.

The configuration and condition of the mixing area, mixing tank, and storage tank remain unchanged from those documented during the initial certification audit in 2015. As such, the original findings continue to be applicable and are reiterated here for completeness.

During the current site assessment, the auditor confirmed, through direct visual inspection, that the cyanide mixing and storage tanks are installed on a concrete foundation engineered to prevent seepage into underlying soil or groundwater.

The auditor also observed that the physical condition of the mixing area, mixing tank, and storage tank was sound, with no visible signs of structural degradation or containment failure.

The design and configuration of the secondary containment systems for the cyanide mixing and storage tanks remain consistent with those documented during GK's initial certification audit in 2015. Accordingly, the original findings remain applicable and are restated below for completeness.

GK has constructed and continues to maintain secondary containment infrastructure that provides an effective barrier against potential leakage. Secondary containment is constructed out of concrete.

During the current audit, the auditor visually inspected the containment structures and confirmed they were in sound condition, with no visible signs of cracks or deterioration. GK has maintained physical infrastructure that effectively minimizes the potential for cyanide contact with water.

The warehouse housing the cyanide inventory is constructed with solid walls, a roof, and an elevated concrete floor approximately one metre above the surrounding grade, reducing the risk of ingress from surface water. The floor of the cyanide storage warehouse was recently refurbished with concrete and epoxy.

The cyanide mixing and storage tanks are located within a fully enclosed building featuring structurally sound walls and roofing. These tanks are further protected by engineered concrete secondary containment designed to capture and isolate any potential releases.

GK has implemented ventilation measures in both the warehouse and mixing area to mitigate the potential accumulation of hydrogen cyanide (HCN) gas. The warehouse is equipped with a wall-mounted fan to facilitate air movement. In accordance with documented procedure P-3.2.1.1, operators are required to wait a minimum of 15 minutes after opening the warehouse door to allow for air exchange before entry, and must carry a portable HCN monitor upon accessing the area.

The mixing area features a high ceiling and multiple openings, including doors and vents, which promote passive air circulation. Additionally, the mixing tank is fitted with a vent pipe that discharges to the exterior via the roof, further supporting effective dispersion of any vapours.

Based on these design features and procedural controls, the auditor determined that both areas are adequately ventilated to prevent hazardous buildup of HCN gas.

GK has implemented robust physical and procedural controls to ensure the secure storage of cyanide. The warehouse is equipped with a door alarm, motion detection sensors, and external surveillance cameras. Access is restricted: the door remains locked, and the sole set of keys and alarm code are retained exclusively by the warehouse manager.

The broader industrial complex is secured through gated entry points. Security personnel provide 24-hour coverage, conducting patrols and monitoring surveillance cameras positioned throughout the facility and along the perimeter. The entire site is enclosed by a combination of fencing and walls.

Based on these measures, the auditor concludes that GK stores cyanide in a manner consistent with secure handling and access control requirements.

GK has maintained strict material segregation protocols within its cyanide handling infrastructure. The warehouse is used exclusively for the storage of cyanide, no other substances are stored in this area.

Similarly, the secondary containment systems for the mixing and storage tanks are dedicated solely to cyanide-related operations. No incompatible materials are present within these containment zones.

These practices demonstrate GK's adherence to safe storage principles by ensuring cyanide is isolated from substances that could pose a chemical incompatibility risk.

## Standard of Practice 3.2

**Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 3.2

not in compliance with

### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 3.2; operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The Instruction for the Collection, Temporary Storage, and Handover of Hazardous Waste, Including Packaging Containing Residue or Contaminated with Hazardous Substances Procedure outlines the legal requirement to remove cyanide-contaminated waste from site. All empty cyanide boxes are removed under a specialist hazardous-waste removal contract and send for incineration. As outlined in procedure P-3.2.5.1 Instruction – Preparation of Cyanide Solution, GK has established a controlled process for the decontamination and management of empty cyanide packaging.

After cyanide boxes are emptied, operators wash the boxes and big-bag containers in the designated solution-preparation area using a 5% ferrous sulphate ( $\text{FeSO}_4$ ) solution, which neutralises any residual cyanide. The containers are then left to air-dry. Once dry, the crates are unchained and returned to the reagent warehouse in the same manner as their original delivery, with the operator accompanying the forklift during transport.

All wash water generated during the cleaning process drains to a sump located within the containment system. From there, it is transferred to the detoxification circuit for appropriate treatment.

GK conducts periodic offsite disposal of decontaminated cyanide-packaging materials, including empty bags and boxes, through incineration. These shipments occur two to three times per year and are managed by Balbok Engineering (Balbok), a licensed hazardous-waste contractor based in Sofia. Balbok holds the required authorisation from the Bulgarian Ministry of Environment and Water.

During the recertification audit, the auditor reviewed GK's cyanide-waste tracking logbook together with corresponding shipping manifests issued by Balbok. This review confirmed that disposal activities were properly documented and tracked.

GK has documented procedures governing the operation of valves and couplings during the preparation of solid sodium cyanide. These controls are defined in Standard Operating Procedure (SOP) P-3.2.5 and associated P-3.2.5.1 Instruction – Preparation of Cyanide Solution Procedure.

GK has established equipment-specific procedures to ensure cyanide containers are handled without rupture or puncture. These procedures are documented in SOP P-3.2.2 for forklift operation and SOP P-3.2.3 for use of the electric stacker, both of which outline safe handling practices and verification steps. SOP P-3.2.2.1 provides instructions for ensuring trouble-free operation and safe service of a forklift truck.

During the site inspection, the auditor confirmed that all cyanide containers in the warehouse were intact, with no evidence of damage.

GK has established procedural limits for the stacking of cyanide containers to reduce the risk of physical damage and ensure safe handling. SOP P-3.2.1 specifies a maximum stacking height of three boxes which is in accordance with the manufacturer's recommendation. During the site inspection the auditor observed that cyanide containers in the warehouse were stacked in accordance with the specified stacking height limit.

GK has established procedural controls for the prompt clean-up of any cyanide spills, as outlined in P-3.2.6.1 Instruction for Receiving, Storing and Transporting Cyanide. This document provides specific instructions for

managing cyanide spills. A cabinet containing emergency response equipment for spills was sighted during the site inspection.

GK has established procedural controls for the use of personal protective equipment (PPE) and supervisory oversight during cyanide mixing, as outlined in SOP P-3.2.5 and associated procedures:

- P-3.2.5.1: Instruction for Preparing Cyanide Solution specifies that the mixing operator must wear a Tyvek suit, hard hat, rubber boots, rubber gloves, and a full-face respirator.
- P-3.2.5.2: Shift Supervisor Duties for Cyanide Preparation requires the shift manager to observe the mixing process from a designated safe distance while maintaining radio contact with the control room.

Additional personnel, including the forklift operator and shift manager, are required to wear a Tyvek suit, hard hat, steel-toe boots, safety glasses, dust mask, and carry a portable hydrogen cyanide (HCN) monitor. As an added precaution, an orange warning light is activated outside the mixing area to restrict access during mixing.

Although a live mixing event was not observed during the site visit, the auditor confirmed through staff interviews that all personnel are equipped with the required PPE and that supervisory observation and communication protocols are followed in accordance with the documented procedures.

Instruction P-3.2.5.1 specifies that each crate of cyanide supplied by Draslovka includes a dye packet affixed to the large bag, and the mixing procedure directs operators to add the dye found in the cyanide box during preparation. The requirement is also stated on the supplier's invoice, in accordance with the service agreement.

Red-coloured cyanide was sighted in the plant at the dosing point during the site inspection.

## Principle 4 – Operations

### Standard of Practice 4.1

**Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 4.1

#### Summarise the basis for this Finding/ Deficiencies Identified:

Written management and operating procedures have been developed for cyanide facilities, including unloading, mixing, and storage areas, process plants, regeneration systems, and cyanide treatment circuits. The principal components of the cyanide facilities comprise:

- Cyanide storage warehouse
- Mixing area
- High-strength cyanide storage tank
- CIL (Carbon-in-Leach) area
- Elution and carbon regeneration circuits
- Cyanide destruction area

The management procedure framework begins with the GK Environmental Policy and is supported by the Cyanide Management Plan and the Plan for Monitoring the GK Industrial Area. These are complemented by a detailed suite of Standard Operating Procedures (SOPs) and work instructions specific to cyanide-related infrastructure. Collectively, these documents demonstrate GK's systematic approach to preventing cyanide releases and exposures.

Certain facilities are excluded from classification as cyanide facilities due to plant design, which ensures that effluent from the cyanide destruction circuit is consistently maintained below the 0.5 mg/l WAD cyanide limit. GK provided internal laboratory monitoring data for destruction circuit effluent samples, collected three times per day.

Monitoring results for the audit period confirmed that WAD cyanide concentrations were consistently below 0.5 mg/l. A single minor exceedance was recorded on 28 September 2024, when samples taken over a two-hour period returned values of 0.71 mg/l, 0.80 mg/l, and 0.55 mg/l. The associated Non-Conformance Report identified the exceedance as resulting from a faulty bisulphite dosing pump. The issue was immediately rectified, and follow-up samples collected the same day returned values of 0.42 mg/l and 0.36 mg/l. This isolated exceedance did not represent sustained non-compliance.

In addition to internal monitoring, GK provided monthly destruction circuit effluent WAD cyanide results from an external laboratory for samples collected during the audit period. These results likewise confirmed that WAD cyanide concentrations remained consistently below 0.5 mg/l.

As the cyanide destruction circuit has maintained effluent WAD cyanide concentrations below the 0.5 mg/l limit, the following facilities are excluded from classification as cyanide facilities:

- Pipeline from the Cyanide Destruction Area to the Day Pond
- Day Pond
- TSF
- Pipelines to and from the TSF.

The operation has plans and procedures that identify the assumptions and parameters on which the facility designs were based and any applicable regulatory requirements to prevent or control cyanide releases and exposures consistent with applicable requirements.

GK has developed clear and structured management plans and procedures that outline how its cyanide facilities were designed and how they are operated to prevent releases and protect workers and the environment. These documents explain the key design assumptions, safety measures, and legal requirements that apply to each part of the operation.

GK's procedures reflect the requirements of two major environmental permits issued by the Bulgarian Ministry of Ecology and Environment namely:

- Integrated Pollution Prevention and Control (IPCC) Permit
- Seveso Permit

GK's operating instructions include safe mixing and handling of cyanide, with clear targets for pH levels and cyanide concentrations in different parts of the process, such as mixing, leaching, detoxification, and elution. These parameters help ensure that cyanide is used safely and that any treated water leaving the site meets environmental standards.

GK has developed and implemented formal procedures that define the standard practices required for the safe and environmentally responsible operation of its cyanide facilities. These procedures incorporate Code-compliant elements, including routine inspections and preventative maintenance protocols.

As the cyanide-related infrastructure has remained unchanged since that time, no revisions were deemed necessary. Each procedure is supported by detailed instructions that include the following structured sections: purpose, scope, definitions, roles and responsibilities, methodology, health and safety requirements, revision history, and associated checklists or inspection forms.

GK conducts inspections at multiple intervals—per shift, monthly, semi-annually, and prior to specific operational events such as cyanide mixing. These inspections are targeted and task-specific, with any deviations recorded using non-conformance forms for follow-up and corrective action.

Maintenance activities are carried out by a dedicated team of ten personnel, following a monthly schedule developed by Metso, the original plant designer. Daily morning meetings are held to allocate resources and coordinate tasks. All maintenance activities are recorded in logbooks to ensure traceability and accountability.

The operation does implement procedures to review proposed changes to production processes, operating practices, or cyanide facilities to determine if they may increase the potential for cyanide releases and worker exposures, and incorporate any measures necessary to protect worker health and safety and the environment.

GK has established a formal written procedure for the management of change, designed to ensure that operational modifications are assessed, approved, and implemented in a controlled and safe manner. The procedure assigns responsibility to a designated "change owner," who is accountable for preparing and executing an implementation plan following management approval.

Each implementation plan includes completion of a Change Control Form and updates to the GK Risk Reduction Register, ensuring that risks are identified and mitigated prior to execution. The Auditor reviewed documented management of change examples during the recertification period to confirm procedural compliance.

The operation has cyanide management contingency procedures for non-standard operating situations that may present a potential for cyanide exposures and releases.

GK does not operate any cyanide facilities where solution or water is permanently present in a manner that would require a water balance to manage containment capacity.

GK has developed documented contingency procedures to address non-standard operating scenarios that may pose a risk of cyanide exposure or release. The contingency procedures cover the following activities:

- P-3.2.6.1 Instruction for Receiving, Storing and Transporting Cyanide
- P-4.1.1.4.1 Instructions for actions to be taken in the event of an accident in leaching cycle
- P 4.1.2.2.1 Instructions for actions to be taken in the event of an accident in elution cycle

Each procedure outlines roles and responsibilities, response methodology, and environment, health and safety requirements specific to the activity.

GK has established a written procedure outlining the required actions in the event of a temporary shutdown of cyanide-related operations namely:

- P-4.1.1.1.11 Emergency instruction for temporary suspension of the process

The procedure outlines step by step instructions for placing the facility in shutdown mode, while inspections, maintenance, and monitoring of cyanide facilities continue unchanged. The operation conducts inspections of unloading, storage, and process areas, as applicable to each site:

GK has implemented routine inspection procedures to ensure the integrity of its cyanide-related infrastructure. Mechanical maintenance personnel conduct monthly visual inspections of tanks to identify any signs of corrosion or leakage. In addition, the structural condition of process columns is assessed every 3 years that involves non-destructive and thickness testing.

GK has established a monthly inspection program for secondary containment systems, conducted by mechanical maintenance staff. These inspections evaluate the physical condition of containment structures, confirm available capacity in the event of fluid accumulation, and ensure that all drains are properly closed and, when necessary, locked to prevent accidental environmental releases.

GK does not operate leach pads or ponds at its mine or processing plant, and therefore the associated requirements do not apply to its cyanide management system.

GK conducts monthly inspections of pipelines, pumps, and valves to identify any signs of wear, corrosion, or leakage. These inspections are performed by maintenance personnel as part of the facility's preventative maintenance program and are intended to ensure continued integrity of cyanide-related infrastructure and reduce the risk of accidental releases.

GK does not have any ponds and impoundments that contain cyanide solutions at concentrations requiring designation or control under Cyanide Code criteria. GK has consistently maintained a structured inspection program for its cyanide facilities during the recertification period. Inspection frequencies are aligned with the nature of each facility and activity, ranging from daily to monthly intervals.

Beyond scheduled inspections, event specific checks are undertaken at the warehouse during cyanide deliveries and at the mixing area during mixing events. Documentation is maintained through checklists, shift reports, and logbooks to ensure facilities remain within design parameters. Inspections are documented.

The Auditor noted that the cyanide facilities were in sound condition, evidencing the effectiveness of GK's inspection program and inspection frequency.

GK maintains detailed records of cyanide facility inspections through checklists, shift reports, and logbooks. These documents record the specific items observed, the date of inspection, the inspector's name, and any identified deficiencies, as applicable.

When deficiencies are observed, they are recorded in non-conformance reports and corrective actions are assigned to maintenance personnel for resolution. The nature and date of each corrective action are documented, and records are maintained accordingly. Preventive maintenance programmes are implemented, and activities documented to ensure that equipment and devices function as necessary for safe cyanide management.

GK has maintained a preventative and corrective maintenance program throughout the recertification period. The preventative maintenance schedule is developed and maintained in accordance with guidance from the Metso plant manual and implemented by the maintenance department. Certain equipment is serviced by external vendors under contract.

The Auditor observed the cyanide facilities to be in sound condition, reflecting the effectiveness of GK's maintenance program. The operation does have emergency power to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted.

GK's power management system for cyanide-related operations remains unchanged since its initial audit in 2015. The plant receives electricity through two independent power lines connected to an electric yard. At any given time, only one line is active, while the second remains on standby for redundancy. Transition between sources takes a few minutes and is tested during scheduled maintenance.

In the event of a complete power failure, the plant is designed to shut down safely, with fluid circulation ceasing without risk of unintentional release. The Auditor sighted electrical maintenance and testing records.

### Standard of Practice 4.2

**Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 4.2

not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.2; to introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

In 2020, GK engaged an independent consultant to conduct bottle roll tests on ore from the Sedefche Mine. The test program established an optimized free cyanide addition range of 149–161 mg/l. Cyanide dosing requirements were determined through laboratory test work and routine sample analysis, with adjustments made according to copper content in the ore—higher copper concentrations necessitating increased cyanide addition to achieve target leach performance.

Free cyanide concentrations are manually measured on an hourly basis at the agitator addition point. At the time of the site visit, the control room logbook recorded a free cyanide addition rate of 150.92 mg/l, consistent with the revised operating range.

Although metallurgical test work supports reduced cyanide consumption, the primary safeguard for minimizing cyanide concentrations in tailings remains the cyanide destruction circuit. GK has operated this circuit continuously throughout the recertification period, with monitoring confirming that tailings cyanide concentrations remain below thresholds.

### Standard of Practice 4.3

**Implement a comprehensive water management program to protect against unintentional releases.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 4.3

not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.3; to implement a comprehensive water management program to protect against unintentional releases.

Throughout the recertification period, WAD cyanide concentrations downstream of the destruction circuit remained below 0.5 ppm (refer to 4.1.1). As a result, the Day Pond and tailings storage facility were not classified as cyanide facilities under Cyanide Code criteria that would require a water balance to protect against unintentional releases.

The requirement for a comprehensive, probabilistic water balance is therefore not applicable.

#### Standard of Practice 4.4

**Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 4.4

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.4; to implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

Throughout the recertification period, WAD cyanide concentrations measured downstream of the destruction circuit remained below 0.5 mg/l. Consequently, the Day Pond and tailings storage facility did not meet the Cyanide Code criteria for classification as cyanide facilities, which would otherwise require restricted access for wildlife and livestock. Standard of Practice 4.4 is therefore not applicable to GK.

Heap leach processing is not utilised at GK's operations.

#### Standard of Practice 4.5

**Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 4.5

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.5; to implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The operation does have a direct discharge to surface water. A portion of the decant return water is released into a drainage channel situated at the base of the tailings dam. This channel conveys flow through a wetland system before ultimately discharging into the Arda River.

GK conducts daily sampling of water within the TSF drainage channel, while an external laboratory performs monthly sampling at the same location. Both internal and external monitoring results confirmed WAD cyanide levels remained below 0.5 mg/l, with no exceedances recorded during the reporting period.

The operation monitors free cyanide at the TSF discharge point, specifically within the TSF drainage channel, as no mixing zone has been established.

GK conducts daily sampling of water within the TSF drainage channel, while an external laboratory performs monthly sampling at the same location. Both internal and external monitoring results confirmed free cyanide levels remained below 0.022 mg/l, with no exceedances recorded during the reporting period.

The operation does not have an indirect discharge to surface water. In the event of seepage from the TSF, any such flow would enter the TSF drainage channel, which is the same channel used for monitoring the direct discharge.

Both internal and external monitoring results confirmed that free cyanide concentrations remained below 0.022 mg/l, with no exceedances recorded during the reporting period.

### Standard of Practice 4.6

**Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.**

The operation is  in full compliance with Standard of Practice 4.6  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.6; to implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

The operation implements specific water management measures to control seepage and protect the beneficial use of groundwater beneath and/or immediately downgradient of the facility.

On-site cyanide destruction has effectively reduced concentrations in the day pond, TSF, and associated pipelines to below 0.5 mg/L WAD cyanide. Protective measures at the plant include installing pipelines and cyanide storage vessels on concrete flooring, as well as implementing routine groundwater monitoring.

The operation monitor for cyanide in groundwater downgradient of the site and can demonstrate that concentrations of total cyanide in groundwater at compliance points below or downgradient of the facility are at or below levels that are protective of identified beneficial uses of the groundwater.

GK confirmed that land use directly downgradient of the plant is designated as industrial, with no agricultural activity or residential development. Groundwater directly downgradient of the plant is therefore not utilized for any beneficial purposes, and public water supply needs in the area are met by reservoirs along the Arda River. The plant's IPPC Permit specifies a groundwater quality limit of 0.05 mg/L total cyanide.

GK has installed three groundwater monitoring wells at the plant site, with two located downgradient and one positioned upgradient of the plant. These wells are sampled annually. Groundwater monitoring results for the reporting period returned non-detect levels for total cyanide. The method detection limit for total cyanide is < 0.005 mg/L.

The operation does not use mill tailings as underground backfill. The operation advised there are no defined beneficial use of groundwater in the area and monitoring indicates there is no cyanide impacts to groundwater.

### Standard of Practice 4.7

**Provide spill prevention or containment measures for process tanks and pipelines.**

The operation is  in full compliance with Standard of Practice 4.7  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.7; to provide spill prevention or containment measures for process tanks and pipelines.

Spill prevention and containment infrastructure is in place for all tanks associated with cyanide storage, mixing, and process solutions. Dedicated secondary containment is provided for the cyanide mixing and distribution tank, leach tanks, CIL tanks, detoxification tanks, and the elution area.

The configuration and condition of the spill prevention and containment infrastructure remain consistent with those documented during the initial certification audit in 2015. Accordingly, the original findings remain valid and are reiterated here for completeness.

Each containment area is constructed with concrete walls and floors, observed to be well maintained and subject to routine inspection. All tanks are installed on concrete foundations approximately 300mm thick, providing structural integrity and effective spill protection. Secondary containments for cyanide storage, mixing, and process tanks are designed to hold more than the volume of the largest tank within the containment, including any piping draining back to the tank, with additional capacity provided for the design storm event.

Cyanide tank and vessel containments remain unchanged since the 2015 audit, and those findings still apply. All areas are designed to hold more than the largest tank plus connected piping, with extra capacity for stormwater where needed.

The auditor also noted during the site inspection that no materials were stored within the secondary containment areas that would reduce or compromise their capacity. Controls are in place to prevent the release of cyanide solutions to the environment. Secondary containment systems are provided for all tanks and piping that contains cyanide solution. Each containment area is fitted with a sump that collects any spilled solution or contaminated stormwater.

The sumps are equipped with automated pumps, which return collected liquids to the cyanide destruction circuit. Because these engineered controls are effective, no separate written procedure has been developed specifically for managing discharges from secondary containment areas to the environment.

All process tanks at GK are fitted with secondary containment to control potential spills. Consequently, dedicated procedures for remediating contaminated soil are not necessary.

Spill prevention and containment systems are in place for all cyanide process pipelines to capture leaks and prevent releases to the environment. The configuration and condition of this infrastructure remain consistent with those documented during the initial certification audit in 2015. Accordingly, the original findings remain valid and are reiterated here for completeness.

All cyanide process pipelines are located within the mill building, while pipelines outside the mill building are housed in secondary containment associated with the cyanide process solution storage vessels. These containment systems direct any collected liquids to area-specific sumps, which discharge to the cyanide destruction circuit. This arrangement was confirmed during the 2015 audit and verified again through visual inspection during the site visit.

Pipelines do not cross or run in close proximity to any surface water and pose no threat to surface water quality. Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions.

The configuration and condition of this infrastructure remain consistent with those documented during the initial certification audit in 2015. Accordingly, the original findings remain valid and are reiterated here for completeness.

All equipment handling cyanide solutions, including tanks and pipelines, is made from carbon steel, stainless steel, black tin, or high-density polyethylene (HDPE), ensuring durability and resistance to corrosion under operational conditions.

#### **Standard of Practice 4.8**

**Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 4.8

**Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 4.8; implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Quality control and quality assurance (QA/QC) programs were implemented during the construction of all cyanide facilities. No modifications have been made to the cyanide-related infrastructure since the initial audit in 2015; accordingly, the original findings remain valid and are restated here for completeness.

Evidence of QA/QC oversight was confirmed for the mill building, including associated tanks and pipelines as well as the mixing and reagent storage areas, CIL and leaching circuits, detoxification systems, and the elution section. Where direct QA/QC documentation was unavailable, GK provided declarations of conformity issued by independent engineers.

QA/QC programs were implemented to verify the appropriateness of construction materials and the adequacy of soil compaction for foundational earthworks, including tank bases and liners, as well as for the installation of cyanide storage and process tanks. The installation of synthetic membrane liners in pond systems falls outside the scope of this certification audit and is therefore not evaluated herein.

QA/QC records have been retained for all cyanide facilities. Where QA/QC records were not preserved, declarations of conformity issued by independent engineers have been retained.

Construction of the cyanide facilities was reviewed by suitably qualified personnel, who confirmed, through supporting documentation, that the infrastructure was built in accordance with approved designs and specifications, where applicable. Metso oversaw construction activities related to their equipment and provided support during commissioning and operational startup.

Where QA/QC documentation was not retained for construction activities, declarations of conformity were provided by suitably qualified professionals. These professionals inspected the facilities and issued reports confirming that continued operation within established parameters will safeguard against cyanide exposures and releases.

**Standard of Practice 4.9**

**Implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and groundwater quality.**

The operation is  in full compliance with Standard of Practice 4.9  
 in substantial compliance with  
 not in compliance with

**Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 4.9; to implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and groundwater quality.

The operation has developed written standard procedures for monitoring activities. GK has the following procedures to guide its monitoring practices:

- Plan for Self-Monitoring of the Industrial Site of Gorubso-Kardzhali
- Sampling procedure in the event of a hazardous substance incident
- Instruction for monitoring the values of the controlled parameters, ensuring the optimal operating mode of the treatment facilities
- Instruction to evaluate the monitoring results for compliance with the individual emission limitations under the integrated permit, to identify the reasons for the non-compliance, and to take corrective action

Sampling and analytical protocols have been developed by appropriately qualified personnel. Internal laboratory procedures were established by the plant's quality engineer, who holds a degree in mining engineering. The monitoring plan and associated procedures were prepared by the GK Environmental Manager who is a qualified chemical engineer.

Field sampling and laboratory analysis protocols for external testing were independently developed by Eurotest Control. This laboratory maintains accreditation under ISO 9001 for quality management and ISO 17025 for laboratory competence. Eurotest Control is specifically certified to perform the following analyses:

- Free cyanide in accordance with ETC 7.1.3-41
- Weak Acid Dissociable (WAD) cyanide per ISO 6703-2

Total cyanide as specified in ISO 6703-1 Procedures specify how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions, and cyanide species to be analysed.

The Monitoring Plan defines the groundwater sampling framework, specifying sampling points, target analytes, including cyanide species, sampling frequency, analytical methods, permissible limits, and the designated laboratory. To ensure representative sample collection, the plan references ISO 5667-1:2020, which sets out procedures for sampling, chain-of-custody, preservation, handling, transport, storage, and quality assurance.

The "Sampling Procedure in the Event of a Hazardous Substance Incident" establishes requirements for sample labelling, container type, volume, preservation, handling, and the decontamination of sampling equipment. Sampling conditions such as weather, livestock or wildlife activity, and human-related factors are documented in written records along with the sampling procedures.

Laboratory field sampling forms capture key observational details, including prevailing weather conditions and any anomalies that could influence analytical outcomes. In line with ICMI requirements, these forms also document factors such as sample integrity, handling practices, and any deviations from standard procedures that may affect representativeness. Records typically include information on sampling personnel and chain-of-custody to ensure transparency and traceability.

Monitoring is conducted at intervals that allow for timely detection of changes in environmental conditions. GK conducts cyanide monitoring across both surface water and groundwater systems in compliance with applicable jurisdictional requirements, specifically the IPCC Permit and the Plan for Self-Monitoring of the Industrial Site of Gorubso-Kardzhali, a regulatory-approved document. The auditor concluded that the monitoring scope and frequency are appropriate to meet regulatory and ICMI standards.

## Principle 5 – Decommissioning

### Standard of Practice 5.1

**Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife, livestock, and the environment.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 5.1

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 5.1; to plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife, livestock, and the environment.

The operation developed written procedures to decommission cyanide facilities at the cessation of operations, based on a cyanide-specific decommissioning plan prepared by a professional engineer. Key provisions in the plan include:

- Decontamination of equipment: All equipment is required to undergo a decontamination process, with clear identification of the facilities involved in cyanide use that must be cleaned.
- Removal of residual cyanide reagents: Unused chemicals are either returned to the manufacturer or disposed of as hazardous waste. Liquid wastewater is treated through detoxification before discharge to the TSF.
- Neutralization of process solutions: Process solutions are neutralized to eliminate cyanide content.
- Rinsing of heap leach pads: Not applicable.
- Installation of measures for surface and groundwater control or management: The plan does not anticipate the need for remediation measures to protect groundwater and surface water as part of site closure.

The plan includes an implementation schedule for decommissioning activities. The plan outlines a timeline for the phased shutdown of cyanide-related infrastructure, listing the necessary activities, estimated personnel needs, and a month-by-month breakdown of tasks.

The operation reviews its decommissioning procedures for cyanide facilities throughout the life of the operation and revises them as necessary. The Procedure for the Removal of Installations, Equipment and Substances after Activities Cease specifies that the plan will be reviewed and updated to reflect the specific implementation of project activities, with the objective of finalizing the plan prior to the removal of cyanide-related installations and equipment.

The Environment Manager confirmed that she conducts an annual review of the decommissioning documents. As the cyanide facilities have not changed, no revisions to the decommissioning measures have been required, and therefore the documents have not needed updating.

### Standard of Practice 5.2

**Establish a financial assurance mechanism capable of fully funding cyanide-related decommissioning activities.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 5.2

**Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 5.2; to establish a financial assurance mechanism capable of fully funding cyanide-related decommissioning activities.

The operation developed an estimate of the cost to fully fund third party implementation of the cyanide-related decommissioning measures as identified in its site decommissioning or closure plan

Evidence of this practice was confirmed by the Auditor, who sighted the updated 2025 version of the cost estimate. The decommissioning plan details a structured sequence of activities, including cessation of pulp flow, sequential washing and transfer of materials to detoxification tanks, dismantling of piping, electrical connections, motors, mixers, pumps, walkways, and stairs, demolition of reinforced concrete bases, removal and relocation of reservoirs using a 40-ton crane, and final site cleanup. The cost estimate includes these items, with unit rates derived from the Reference Book on Prices in Construction and the Quarterly Publication on Prices in Construction, 2025.

The operation does review and update the cost estimate at least every 5 years and when revisions to the plan are made that affect cyanide decommissioning activities. The Auditor sighted the updated 2025 version to confirm continued compliance with financial assurance requirements. The operation has established a financial mechanism as required and approved by the applicable jurisdiction to cover the estimated costs for cyanide related decommissioning activities as identified in its decommissioning and closure strategy.

GK has implemented a financial mechanism in accordance with jurisdictional requirements to ensure coverage of cyanide-related decommissioning costs. Under the mine's exploitation and closure concession, an annex to the primary contract issued by the Ministry of Economics and Energy, GK is required to maintain a dedicated bank account for closure funding.

This account must be provisioned annually, with payments made at the close of each financial year. The Auditor confirmed compliance by sighting the latest payment confirmation submitted to the Ministry of Economics and Energy.

## Principle 6 – Worker Safety

### Standard of Practice 6.1

**Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.**

The operation is  in full compliance with Standard of Practice 6.1  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 6.1; to identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation has developed procedures describing how cyanide related tasks such as unloading, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimise worker exposure.

Dedicated plans and procedures have been developed for cyanide unloading, task-specific operations, confined space entry, and equipment decontamination. These documents are reviewed and updated as necessary to reflect current practices and regulatory expectations.

Each procedure outlines task-specific hazards and prescribes safe work practices. Supporting materials state protective equipment (PPE) requirements, personnel responsibilities, and step-by-step instructions for safe execution. Verification was confirmed through auditor review of the written procedures and associated plans. The procedures require, where necessary, the use of PPE and address pre-work inspections.

GK's SOPs mandate the use of appropriate PPE, including respirators, personal hydrogen cyanide gas monitors, eye protection, protective gloves, and protective overalls. The use of PPE is reinforced through training programs and signage posted in designated work areas.

Pre-work inspection checklists are established for key operational zones, namely the cyanide warehouse, preparation and mixing area, carbon-in-leach circuit, and elution area. These checklists must be completed prior to entering the area or commencing tasks to identify potential safety issues or concerns, as appropriate and necessary for safe operation.

The operation actively solicits and considers worker input in the development and evaluation of health and safety procedures.

GK engages employees through daily pre-shift safety meetings, which provide a structured forum for feedback that is routinely sought and incorporated. Beyond verbal communication, two confidential suggestion boxes are available on site for workers to submit ideas or concerns directly to management.

Informal feedback is also encouraged through routine interactions between workers and shift supervisors, as well as during training sessions. This multi-channel approach ensures continuous improvement of procedures based on frontline experience.

## Standard of Practice 6.2

**Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.**

The operation is  in full compliance with  
 in substantial compliance with  
 not in compliance with

Standard of Practice 6.2

### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 6.2; to operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation has established the appropriate pH range to limit hydrogen cyanide gas evolution during production activities. For mixing, leaching, and carbon absorption, the required pH is maintained between 10.5 and 12.0, as documented in cyanide mixing and production SOPs.

To ensure compliance, GK employs both automated and manual monitoring systems. Real-time pH sensors are installed in the mixing tank and key process tanks, with data transmitted directly to the control room.

In addition, manual pH titrations are conducted hourly at multiple sampling points, with results recorded in logbooks. Audit review of records confirmed that pH levels were consistently maintained within the target range.

The operation has identified areas and activities where workers may be exposed to hydrogen cyanide gas or cyanide dust in excess of 10 parts per million (ppm) on an instantaneous basis and 4.7 ppm continuously over an 8-hour period, as cyanide, and require use of appropriate personal protective equipment in these areas or when performing these activities.

GK has assessed work areas where employees could be exposed to hydrogen cyanide gas or cyanide dust above established limits (10 ppm instantaneous or 4.7 ppm over an 8-hour shift). The assessment identified the following areas where GK has operational controls in place to minimise exposure risk:

- Vehicle gate: Continuous monitoring with a fixed HCN detector; restricted access supported by entry documentation.
- Warehouse: Mandatory 15-minute delay before entry; portable HCN checks by the warehouse manager; PPE required.
- Mixing facilities: Supervisor oversight during mixing; spot checks with portable HCN monitor; fixed HCN monitor at the tank; PPE required.
- Leaching, detox, and elution circuits: Fixed HCN detectors at cyanide addition points; PPE required.

GK has evaluated all operational areas and activities and determined that worker exposure to cyanide does not exceed 10 ppm on an instantaneous basis or 4.7 ppm as an 8-hour time weighted average. Consequently, personal HCN monitors are not required under normal plant conditions, except in designated areas or during specific tasks where precautionary measures are necessary.

To support this determination, GK has installed four fixed HCN gas monitors at critical locations:

- Vehicle access point
- Above the leach tank
- Above the sodium cyanide mixing tank
- Above the elution tank

These monitors provide continuous, real-time data to ensure cyanide concentrations remain within safe limits. The cyanide mixing procedure specifies the following alarm levels and corresponding actions:

- Level I (2 ppm / 20%): Light signal alerts operators; no further action required.
- Level II (4 ppm / 40%): Light signal, audible alarm, and forced ventilation activated.

- Level III (7.5 ppm / 75%): Light signal, audible alarm, and forced ventilation activated; cyanide supply stopped immediately.
  - If exposure persists for more than 10 minutes: operators evacuate.
  - If exposure persists for more than 15 minutes: emergency plan procedures initiated.

The same alarm levels and response actions apply to the fixed monitors located at the vehicle access point, the leach tanks, and above the elution tank, with the exception that forced ventilation is not applicable.

Hydrogen cyanide monitoring equipment is maintained, tested and calibrated as directed by the manufacturer, and records retained for at least three years. GK ensures that hydrogen cyanide (HCN) monitoring equipment is maintained, tested, and calibrated in accordance with the manufacturer's specifications (Dräger).

Calibration activities for both fixed and portable monitors are conducted biannually by Dräger Safety Bulgaria. Records of these calibrations have been maintained for the audit period.

Warning signs have been placed where cyanide is used advising workers that cyanide is present, and that smoking, open flames and eating and drinking are not allowed, and that, if necessary, suitable protective equipment must be worn.

GK has installed clear and appropriately positioned warning signage in all areas where cyanide is handled or present. These signs inform personnel of the presence of cyanide and explicitly prohibit smoking, open flames, and the consumption of food or drink in these zones.

The signage is designed for high visibility and strategic placement to ensure it is easily noticed by workers. The Safety Manager conducts a monthly inspection of all site signage to verify that markings remain clear, legible, and compliant with site requirements. High-strength cyanide solution is dyed to ensure clear visual identification.

GK has implemented the use of a red dye to distinguish high-strength cyanide solution, and this requirement has been formally incorporated into the Mixing of Cyanide Solution procedure. During the site inspection, the auditor observed that the solution at the agitator addition point was visibly red, confirming the application of this control.

Showers, low-pressure eye wash stations and dry powder or non-acidic sodium bi-carbonate fire extinguishers are located at strategic locations throughout the operation and are they maintained, inspected and tested on a regular basis. All fire extinguishers within the cyanide facility are charged with ABC dry powder and undergo annual inspections by an external service provider. GK also receives regular visits from the local fire brigade, who provide guidance on the appropriate quantity and placement of extinguishers across the site.

Emergency showers and low-pressure eyewash stations are inspected daily. These inspections also cover emergency response equipment, pH meters, fixed HCN monitors, process tanks, and bund integrity. Before each cyanide mixing event, fire extinguishers, showers, and eyewash stations in the mixing area are specifically checked, with verification recorded in both the mixing checklist and the cyanide mixing instructions.

During the site visit, the auditor conducted a visual assessment of an emergency shower and eyewash station, confirmed that water pressure was adequate, and reviewed supporting inspection records, which were found to be satisfactory. Unloading, storage, process tanks and piping containing cyanide have been identified to alert workers of their contents, and the direction of cyanide flow in pipes designated.

Cyanide tanks are marked with pictograms and written labels, ensuring clear identification of cyanide-containing vessels. Pipelines carrying high-strength cyanide are color-coded red, providing a clear visual hazard cue, and black flow-direction arrows are displayed at appropriate intervals along the cyanide piping.

Colour-code key signage is posted at the plant entrance, supporting consistent understanding of the system. Visitor training materials and site-induction materials also describe the site color-coding system and its meaning, reinforcing awareness among all personnel and contractors.

Safety Data Sheets (SDS), first aid procedures or other informational materials on cyanide safety are written in the language of the workforce and available in areas where cyanide is managed.

SDSs, first-aid procedures, and other informational materials related to cyanide safety are provided in the language of the workforce and are available in all areas where cyanide is handled. GK has made cyanide SDS readily accessible at the warehouse, the plant site office, and the control room, as well as key process areas ensuring they are available at the point of use. All SDS documents, first-aid procedures, and cyanide-safety information are written in Bulgarian, consistent with the language spoken by the workforce.

Procedures are in place and being implemented to investigate and evaluate cyanide exposure incidents to determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need revising.

GK has established a procedure for investigating and evaluating cyanide-exposure incidents to determine whether existing health and safety controls remain effective or require revision. The procedure has been aligned with the Bulgarian regulatory requirements, that uses a standardized incident-reporting form.

During the current audit cycle, no cyanide-related incidents were recorded, and therefore no revisions to cyanide-specific procedures were required. To demonstrate the application of the reporting process, the Safety Manager provided a May 2025 incident report involving a worker who tripped over a hose and injured his knee.

### Standard of Practice 6.3

#### Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

in full compliance with  
The operation is  in substantial compliance with Standard of Practice 6.3  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 6.3; to develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation does have oxygen, a resuscitator, telephone and alarm system readily available for use at cyanide unloading and storage locations and elsewhere in the plant. GK has equipped its facility with critical emergency response equipment to address potential cyanide exposure incidents. This includes oxygen therapy units, resuscitators and self-Contained Breathing Apparatus (SCBAs). Decontamination resources, such as running water, emergency showers, and low-pressure eyewash stations are available throughout operational areas to support immediate first aid.

In light of national restrictions on importing cyanide-specific antidotes into Bulgaria, GK has formally adopted oxygen therapy as its primary treatment method. This decision is reflected in the site's emergency response procedures and associated documentation. The operation does inspect its first aid equipment regularly to ensure that it is available when needed, and materials such as oxygen and breathing apparatus are stored and/or tested as directed by their manufacturer and replaced on schedule to ensure that they will be effective when needed.

GK maintains medical grade oxygen for use in the treatment of cyanide exposure incidents. The oxygen supply is stored in an emergency response cabinet located within the plant. Monthly inspections are carried out by the Safety Department. Alongside the oxygen inspection, the Safety Department also conducts a separate monthly check of the SCBA units. General first aid kits across the site are likewise inspected each month to ensure readiness and compliance.

In addition, a third party contractor performs an annual inspection and maintenance of the oxygen tanks and breathing apparatus. The contractor replaces equipment as required based on the outcomes of these inspections. The operation developed specific written emergency plans or procedures to respond to cyanide exposures.

GK has established formal procedures for responding to cyanide exposure incidents, covering ingestion, inhalation, and skin or eye contact. The site's IEP further outlines coordinated actions for accidental cyanide releases.

Supporting this plan, GK maintains several scenario specific SOPs addressing cyanide spill response during transport, storage, handling, and use; management of inappropriate pH incidents; and response to leaks involving other hazardous chemicals. Together, these documents form a cohesive emergency preparedness framework that ensures timely, effective, and compliant responses to cyanide exposure incidents. The operation does have its own on-site capability to provide first aid or medical assistance to workers exposed to cyanide.

GK maintains on-site first aid capabilities to respond effectively to cyanide exposure incidents. In the event of such an emergency, the affected individual is promptly removed from the exposure area, decontaminated by removing contaminated clothing and rinsing with water, administered oxygen therapy, and then transported to the nearby Atanas Dafovski Hospital for further medical care.

The emergency response team is trained in the administration of oxygen and related first aid procedures. To ensure continuous coverage, GK maintains a minimum of two trained emergency responders on duty during every shift. The operation has developed procedures to transport workers exposed to cyanide to locally available qualified offsite medical facilities.

GK has established formal procedures for the off site medical transport of individuals exposed to cyanide, as detailed in within the IEP, which provides specific instructions for ambulance transfer to the Atanas Dafovski Hospital in Kardzhali. Emergency contact information from the plan is prominently displayed in key operational areas to ensure rapid access during an incident.

Due to GK's location within the town of Kardzhali, ambulance response time is typically around four minutes, with transport to the hospital generally taking less than ten minutes, enabling timely medical intervention in the event of a cyanide related emergency.

The operation has made formalised arrangements with the local hospitals, clinic etc, so that these providers are aware of the potential need to treat patients for cyanide exposure. The operation is confident that the medical facility has adequate, qualified staff, equipment and expertise to respond to cyanide exposures.

GK has made the Atanas Dafovski Hospital in Kardzhali aware in writing of the need to provide medical support in the event of cyanide exposure. A formal letter from the hospital, confirms its readiness to treat cyanide affected individuals and notes its alignment with the International Cyanide Management Code. According to the Safety Manager, the hospital is equipped with amyl nitrite antidotes specifically for managing cyanide related medical emergencies.

## Principle 7 – Emergency Response

### Standard of Practice 7.1

#### Prepare detailed emergency response plans for potential cyanide releases.

in full compliance with  
The operation is  in substantial compliance with Standard of Practice 7.1  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.1; to prepare detailed emergency response plans for potential cyanide releases.

The operation developed an Emergency Response Plan to address potential accidental releases of cyanide and cyanide exposure incidents. The site's IEP outlines coordinated actions for accidental cyanide releases.

Supporting this plan, GK maintains several scenario-specific SOPs addressing cyanide spill response during transport, storage, handling, and use; management of inappropriate pH incidents; and response to leaks involving other hazardous chemicals. Together, these documents form a cohesive emergency preparedness framework that ensures timely, effective, and compliant responses to cyanide exposure incidents.

GK has evaluated all credible cyanide-related failure scenarios relevant to its site-specific environmental and operational conditions. The assessment covers the following situations:

#### a) Catastrophic release of HCN

These risks are addressed under Scenarios 4 and 6 of the Scenarios for Potential Major Accidents Procedure. Supporting procedures define controls for HCN releases across the cyanide lifecycle, including:

- Controls for HCN emissions during leaching and cyanide destruction Procedure.
- Management of HCN risks in the elution circuit Procedure.
- Prevention and response measures for cyanide exposure and releases during storage, internal transport, and mixing.

#### b) Transportation accidents on or near the operation

On-site or near-site transportation incidents fall under Scenarios 1 and 2 of Scenarios for Potential Major Accidents Procedure. Incidents beyond the site boundary are managed by the transporter. Internal procedures guide the response to transportation-related events within the operational area.

#### c) Cyanide releases during unloading and mixing

Scenario 4 of P-7.1 outlines the response framework for releases during unloading and mixing. Broader guidance for releases during transport, loading, unloading, and mixing is provided in Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure.

#### d) Cyanide releases during fires or explosions

Section 5 of the IEP defines response protocols for cyanide releases caused by fires or explosions, including off-site events that may affect the operation. The IEP is supported by Appendix 1.10.5 – Fire Action Plan. For external incidents, GK follows the direction of local authorities.

#### e) Pipe, valve, and tank ruptures

These events are covered under Scenarios 3 and 5 of P-7.1 as well as the following procedures:

- Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure
- Instructions for actions to be taken in the event of an accident in leaching cycle procedure
- Instructions for actions to be taken in the event of an accident in elution cycle-desorption of carbon procedure

*f) Overtopping of ponds and impoundments*

This scenario is not applicable, as GK does not operate ponds or impoundments classified as cyanide facilities.

*g) Power outages and pump failures*

GK is supplied by two independent power sources and has a switchover protocol, making outages unlikely. Pump failures are addressed in:

- Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure
- Instructions for actions to be taken in the event of an accident in leaching cycle procedure
- Instructions for actions to be taken in the event of an accident in elution cycle-desorption of carbon procedure

*h) Uncontrolled seepage*

Not applicable, as GK has no cyanide facilities where uncontrolled seepage presents a credible risk. The day pond and TSF are not classified as cyanide facilities. Secondary containments are not designed for permanent storage; incidental seepage is managed through routine removal and cleaning.

*i) Failure of cyanide treatment, destruction, or recovery systems*

Section V of the Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure, defines actions when free or WAD cyanide exceeds targets. If control is not restored within two hours, the leaching-cycle incident procedure is activated.

*j) Failure of tailings impoundments, heap leach facilities, or other cyanide facilities*

Not applicable, as GK does not operate a heap leach facility and the TSF is not a cyanide facility. Planning for response to transportation-related emergencies considered transportation route(s), physical and chemical form of the cyanide, method of transport, the condition of the road or railway, and the design of the transport vehicle.

Responsibility for transportation-related emergencies lies with the transport company, as specified in the contract issued by the cyanide supplier. GK assumes custody and accountability for the cyanide upon its arrival at the gatehouse. Standard Operating Procedures governing the internal transport of cyanide, from the gatehouse to the warehouse, have been developed.

GK's emergency planning recognises that solid or liquid cyanide releases to soil require similar cleanup actions, as outlined in the following procedures:

- Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure
- Instructions for actions to be taken in the event of an accident in leaching cycle procedure
- Instructions for actions to be taken in the event of an accident in elution cycle-desorption of carbon procedure

The site's flat terrain and air-modelling results indicate that any HCN release would remain localised and unlikely to affect off-site receptors. Personnel evacuation would be initiated through the industrial park loudspeaker system, with routes and muster points identified in Appendix 2.2 of the IEP and supported by evacuation and muster point signage. If an incident posed a risk beyond the site boundary, GK would notify local authorities would assume control of community evacuation and broader emergency response.

The plans address the use of cyanide first aid measures, as outlined in the procedure for rendering first aid in the event of an accident when carrying out activities with sodium cyanide, including decontamination and administration of medical oxygen. GK does not store cyanide antidotes due to national import restrictions and therefore relies on oxygen treatment. The Safety Manager confirmed that Atanas Dafovski Hospital maintains sodium thiosulfate for cyanide treatment.

The following procedures also provide guidance for controlling liquid and solid cyanide releases at their point of origin during transportation, mixing, leaching, and elution activities:

- Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing procedure
- Instructions for actions to be taken in the event of an accident in leaching cycle procedure
- Instructions for actions to be taken in the event of an accident in elution cycle-desorption of carbon procedure

The procedures same procedures outline containment measures and preventive actions for cyanide releases during key operational stages. Assessment and mitigation are addressed through the monitoring and sampling protocol in the sampling procedure in the event of a hazardous substance incident. Future prevention of releases is managed through the GK incident investigation procedure.

## Standard of Practice 7.2

### Involve site personnel and stakeholders in the planning process.

The operation is  in full compliance with Standard of Practice 7.2  
 in substantial compliance with  
 not in compliance with

### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.2; to involve site personnel and stakeholders in the planning process.

The operation has involved its workforce and the external emergency responders in the cyanide emergency response planning process. Employees contribute through regular safety meetings and participation in mock emergency drills, which provide opportunities to raise concerns, offer feedback, and discuss updates to emergency procedures. Government departments also conduct routine inspections that inform ongoing improvements.

Neighbouring facilities have been provided with GK's Emergency Actions Document and maintain open communication with the site. One neighbouring operation participated in a mock emergency drill in April 2025. GK also conducts joint training and mock drills with the fire safety and civil protection authorities, including on site fire safety and natural disaster response exercises.

The operation made potentially affected communities aware of the nature of their risks associated with accidental cyanide releases, and consulted with them directly or through community representatives regarding appropriate communications and response actions.

The community has been engaged mainly through the fire department's yearly IEP review, routine inspections, involvement in emergency simulation exercises, and various informal discussions. It is however noted that The site's flat terrain and air modelling results indicate that any HCN release would remain localised and unlikely to affect off site receptors. GK also makes available to the public a safety information document, published on its website, which outlines the planned safety measures and the expected behaviour and actions in the event of an accident.

Neighbouring facilities are actively involved in the emergency planning process. They maintain regular contact with GK, receive invitations to participate in mock drills, and are given the opportunity to review and comment on the IEP. In the event of an actual emergency, GK would notify neighbouring operations by telephone. As part of routine preparedness, GK also contacts these facilities during scheduled tests of the site-wide emergency siren system.

GK has actively engaged external emergency response agencies and medical facilities in its cyanide emergency planning and preparedness efforts. The local fire department conducts annual site visits to maintain familiarity with the facility layout and operational risks. They have been provided with a copy of the IEP and have offered guidance on the required number and placement of fire extinguishers and hydrants. Their involvement contributes to the overall effectiveness of GK's emergency response framework.

GK maintains continuous engagement with key stakeholders to ensure its IEP remains up to date and consistent with regulatory requirements. This engagement includes regular coordination with the local fire department, neighbouring facilities, and relevant non-governmental organisations. External response partners are consulted through onsite training sessions, participation in mock drills, and routine government inspections.

Neighbouring facilities have been provided with copies of GK's IEP and are encouraged to offer feedback on proposed revisions. One neighbouring operator has already taken part in a mock drill, reflecting GK's commitment to inclusive, transparent, and collaborative emergency preparedness.

### Standard of Practice 7.3

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

The operation is  in full compliance with Standard of Practice 7.3  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.3; to designate appropriate personnel and commit necessary equipment and resources for emergency response.

The cyanide-related components of the IEP assign both primary and alternate emergency coordinators with clear authority to mobilize resources for plan implementation. The IEP also lists personnel authorized to activate the plan, including the mine manager, duty manager, and production manager.

The IEP identifies the emergency team, including representatives from the energy department, flotation plant, machinery department, and health, safety, and environmental protection. The response team consists of shift personnel present during an incident. Appendix 10 outlines additional "own reaction groups," including the Management team, Emergency team, Investigation and Rescue team, Paramedic team, and Fire Brigade.

The IEP mandates routine emergency response training for all site personnel. Appendix 10 of the IEP includes 24-hour contact details for key personnel and stakeholders. A dedicated table lists the emergency team's telephone numbers for rapid access during incidents.

Appendix 10, together with the instructions for actions to be taken in the event of an accident during the leaching cycle, defines the specific roles and responsibilities of emergency coordinators and team members. This includes interim duties prior to management's arrival and provisions for delegated authority where appropriate.

Appendix 7 of the IEP lists available tools, materials, PPE, and firefighting gear. Appendix 9 provides an inventory of medical supplies and first aid kits. These have also been noted in related SOPs.

The procedure governing the use of emergency equipment for managing the consequences of accidents during the reception, storage, transport, and use of sodium cyanide sets out the inspection protocol for emergency equipment.

The IEP, together with secondary emergency response SOPs defines the roles and responsibilities of external agencies, including the fire brigade, ambulance services, police, hospitals, and the local community. Only the fire department and ambulance service have assigned onsite functions for managing hazardous releases and providing medical transport, respectively. The hospital's involvement is limited to offsite medical treatment.

The IEP also states that extraordinary situations trigger the external notification procedure, through which the police and the Municipality of Kardzhali are informed and mobilised to manage functions such as traffic control, public safety measures, and any required evacuation of nearby residents. The operation confirmed that outside entities included in the Emergency Response Plan are aware of their involvement and on a periodic basis and are included as necessary in mock drills or implementation exercises.

GK receives annual visits from the local fire department, which has conducted site familiarisation exercises and received a copy of the IEP. A letter from Atanas Dafovski Hospital confirms their awareness of cyanide use at GK and their capacity to treat exposure cases. The IEP has also been shared with the Municipal Authority to support community notification in case of cyanide-related incidents.

#### **Standard of Practice 7.4**

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

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 7.4

#### **Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 7.4; to develop procedures for internal and external emergency notification and reporting.

The Plan includes procedures and contact information for notifying management, regulatory agencies, external response providers and medical facilities of the cyanide emergency. Appendix 5 of the IEP provides notification procedures and contact details for GK management, regional authorities, the municipal fire department, civil protection, emergency services, and local police.

The plans do include procedures and contact information for notifying potentially affected communities of the incident and any necessary response measures and for communication with the media. Section 7 of the IEP outlines procedures and contact details for notifying potentially affected communities and coordinating media communications in the event of a cyanide-related incident.

Control room operators would activate site-wide loudspeakers and sirens to alert personnel, nearby facilities, and the local community. Neighbouring operations would also be contacted directly by phone. If broader impacts are anticipated, the local civil protection department would coordinate public response and media engagement.

The operation has a procedure for notifying ICMI of any significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document. Significant cyanide incidents that have occurred have been reported to the ICMI.

Section 5 of the IEP includes this requirement, along with ICMI contact details and a list of reportable incidents. The emergency notification flowchart also reflects this process. The Safety Manager confirmed that no significant cyanide incidents occurred during the current audit cycle requiring notification.

## Standard of Practice 7.5

**Incorporate remediation measures and monitoring elements into response plans and account for the additional hazards of using cyanide treatment chemicals.**

The operation is  in full compliance with Standard of Practice 7.5  
 in substantial compliance with  
 not in compliance with

### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.5; to incorporate remediation measures and monitoring elements into response plans and account for the additional hazards of using cyanide treatment chemicals.

The Emergency Procedures does describe specific remediation measures as appropriate for the cyanide release scenarios.

The “Instructions for actions to be taken in the event of an accident during transportation, loading, unloading, and mixing” procedure set out clear spill response measures, including deploying appropriate sorbents, collecting spilled material manually or mechanically depending on volume, removing and isolating contaminated materials, and ensuring secure containment to prevent further release.

The same procedure includes decontamination of tools, equipment, and other affected materials, with disposal of the resulting wash water directed to the cyanide destruction circuit. The same procedure also specifies that all cleaned-up materials, solid or liquid, are to be disposed of via the cyanide destruction circuit.

Bottled drinking water is used within the industrial park. The Environment Manager confirmed that Kardzhali’s municipal water supply originates from a reservoir on the Arda River, located upstream of the site, and is therefore not at risk from a cyanide-related incident.

GK prohibits the use of sodium hypochlorite, ferrous sulfate, and hydrogen peroxide for treating cyanide that has entered, or could potentially enter, surface water. This prohibition is explicitly included in the procedure referenced in the section above.

The Plan does address the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and include sampling methodologies, parameters and, where practical, possible locations. The Sampling Procedure for Hazardous Substance Incidents outlines the environmental sampling requirements for spills to soil and water in alignment with Code obligations. It specifies parameters such as sampling depth, volume, preservation, and containerization. Sampling locations and laboratory methods are determined jointly by GK and the Bulgarian regulator in accordance with the Monitoring Plan.

## Standard of Practice 7.6

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

The operation is  in full compliance with Standard of Practice 7.6  
 in substantial compliance with  
 not in compliance with

### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.6; to periodically evaluate response procedures and capabilities and revise them as needed.

The operation does review and evaluate the cyanide related elements of its Emergency Response Plan for adequacy on a regular basis. Bulgarian legislation requires annual updates to the IEP, which has led GK to develop a procedure describing the process and mandates for the evaluation and review of the IEP on an annual basis. Annual reports that document the review and revisions of the IEP were presented as evidence during the audit.

Over the past three years, GK has conducted cyanide emergency drills covering a wide range of scenarios. Each exercise tests the full emergency response process, from initial notification through to incident close-out and all designated emergency responders participate to ensure operational readiness.

External agencies, including fire departments, ambulance services, and neighbouring community representatives, either participate directly in the drills or conduct parallel exercises as part of the broader emergency simulation program. All drills are formally documented and evaluated to assess the adequacy of planning and training, and to identify any required improvements to the IEP, associated SOPs, or training programs.

The auditor reviewed the emergency response drill reports and confirmed that, during the three-year audit period, exercises addressed multiple potential release scenarios, including hydrogen cyanide gas, liquid cyanide, and solid cyanide, as well as various worker exposure pathways such as inhalation, ingestion, and dermal contact, as applicable to the operation.

Provisions are in place to evaluate and revise the Emergency Response Plan, as necessary, following mock drills and following an actual cyanide-related emergency requiring its implementation. The procedure for evaluating and revising the emergency plan includes provisions for updating the IEP following emergency drills or actual cyanide-related emergencies. The Safety Manager confirmed that recent drills were reviewed and did not require revisions, and that no cyanide incidents occurred during the current audit cycle.

## Principle 8 – Training

### Standard of Practice 8.1

**Train workers to understand the hazards associated with cyanide use.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 8.1

not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 8.1; to train workers to understand the hazards associated with cyanide use.

The operation does train all personnel who may encounter cyanide in cyanide hazard recognition. GK provides structured training for all personnel who may be exposed to cyanide, focusing on hazard recognition and safe handling. Induction training is mandatory for visitors and new employees involved in cyanide-related tasks, and includes a 'General Safety Instruction' presentation.

Personnel working in cyanide-handling areas receive annual training through targeted modules namely: Working with Hazardous Substances, Safe Operation with Hazardous Chemicals, and Prevention of Environmental Pollution. These sessions cover key topics such as cyanide identification, storage and use locations, emergency alarms, first aid, fire prevention, spill response, PPE, waste disposal, safety signage, transport protocols, substance abuse policies, monitoring equipment, poisoning symptoms, cyanide chemistry, and risk classifications.

Cyanide hazard recognition refresher training is periodically conducted. GK repeats the cyanide hazard recognition training on an annual basis as documented in the annual training plans. The auditor verified this through training schedules, attendance records, and interviews with personnel.

Cyanide training records are retained. GK maintains cyanide hazard recognition training records that is repeated on an annual basis. The auditor reviewed attendance lists across the recertification period to confirm annual training.

### Standard of Practice 8.2

**Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.**

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 8.2

not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 8.2; to train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation does train workers to perform their normal production tasks including unloading, mixing, production and maintenance, with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases.

GK provides comprehensive training to ensure personnel can safely perform production tasks, including unloading, mixing, processing, and maintenance, with a clear focus on minimizing health risks and preventing cyanide

releases. All new employees complete site induction, hazardous chemical handling, and SOP-specific training before entering operational areas.

Training elements necessary for each job involving cyanide management are identified in the training materials. GK has incorporated job-specific cyanide management training into its training materials through the use of SOPs for both the warehouse and the processing plant.

Each SOP identifies the critical steps and requirements that employees must understand in order to correctly perform cyanide-related tasks. The instructions are tailored and aligned with the responsibilities of individual job roles, ensuring that personnel receive guidance relevant to their specific duties. Task training related to cyanide management activities is provided by an appropriately qualified person.

Operators must attain advanced competency before they can mentor those at the basic level. Trainers are seasoned professionals with hands-on experience in facility operations and hold formal qualifications in the field they operate in. For example, the Environmental Manager is a qualified chemical engineer. Employees are trained before performing any work involving cyanide.

New personnel receive induction and task-specific training on their first day, after which they work under supervision and observation for approximately one month. During this period, trainees shadow experienced personnel and are not permitted to work independently.

They are evaluated for competency by both the shift manager and their assigned buddy, and only once deemed competent are they allowed to work alone. This process was confirmed through interviews with site personnel.

All training is repeated annually to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Repeat annual training on cyanide management is provided to ensure that employees continue to perform their duties safely and in a manner that protects the environment. The operation evaluates the effectiveness of cyanide training through observation, verbal questioning, and supervisor assessment.

GK confirms employee understanding during general induction using oral tests, although no written assessments are conducted for cyanide-specific training. Individual training records include a section for the trainer's evaluation, where the trainer documents whether the employee has understood the material.

Employees are trained before performing any cyanide-related tasks. New personnel receive induction and task-specific instruction on their first day, followed by approximately one month of supervised work under the observation of an experienced buddy.

Competency is formally assessed by both the shift manager and the buddy, and employees are only permitted to work independently once they have been deemed competent. This process was confirmed through interviews with site personnel. Records documenting employee training are maintained for the duration of each individual's employment.

These records capture the employee's name, the trainer's name, the training date, the topics covered, and evidence that the employee demonstrated understanding of the material. The Auditor has confirmed that these records are properly retained.

### Standard of Practice 8.3

**Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.**

The operation is  in full compliance with  in substantial compliance with  not in compliance with Standard of Practice 8.3

**Summarise the basis for this Finding/ Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 8.3; to train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

All cyanide unloading, mixing, production and maintenance personnel are trained in the procedures to be followed if cyanide is released, including decontamination and first aid procedures.

All personnel involved in cyanide unloading, mixing, production, and maintenance are trained in release response procedures. The document Programme for the Undertaking of Training for Safe Use of Working with Dangerous Goods outlines two mandatory topics for task-specific training namely; potential accidents during transport, loading, and unloading; emergency organization and alarm response. Annual first aid training, including cyanide-specific response, is provided to all relevant employees.

Emergency Response Coordinators and members of the Emergency Response Team are trained in the procedures included in the Emergency Response Plan regarding cyanide, including the use of necessary response equipment. Personnel engaged in cyanide-related activities, including unloading, mixing, production, and maintenance are trained in both decontamination procedures and comprehensive first aid. The first aid component addresses cyanide exposure, poisoning, eye contamination, and respiratory distress.

GK conducts annual training for its Emergency Response Team (ERT) on cyanide procedures outlined in the IEP, including equipment operation. The Safety Manager delivers practical instruction on SCBAs, oxygen cylinders, and rescue tools. Emergency drills are carried out each year to reinforce emergency and spill response capability. The operation has made external responders, such as local fire brigades and emergency medical services familiar with those elements of the Emergency Response Plan related to cyanide.

GK has briefed external emergency responders, including the fire brigade and ambulance service on the cyanide-related components of the IEP. The fire brigade conducts an annual review of the IEP, participates in site inspections and emergency drills, and undertakes several informal site visits each year.

The IEP is provided to responders prior to inspections. Fire brigade inspection records reviewed by the auditor included verification of the emergency plan as part of their routine assessment. Refresher training for responding to cyanide exposures and releases is conducted regularly.

GK provides annual refresher training on cyanide exposure and release response, including modules on hazardous substances and pollution prevention and the use of SCBAs, oxygen cylinders, and emergency equipment.

The company also delivers annual cyanide-specific first aid training to ensure personnel remain competent in responding to exposure scenarios. Compliance with these requirements was confirmed by the auditor through training records, internal correspondence, and staff interviews. Records are retained documenting the cyanide emergency response training, including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

GK has maintained cyanide emergency response training records throughout the recertification period, documenting employee and trainer names, training dates, and topics covered. Attendance sheets capture these details, with the content of each session clearly identifiable through its title. Training forms also record whether each operator's level of understanding is assessed as adequate or inadequate.

## Principle 9 – Dialogue and Disclosure

### Standard of Practice 9.1

**Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.**

The operation is  in full compliance with Standard of Practice 9.1  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 9.1; to promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

GK communicates its cyanide management approach primarily through its website, which includes:

- Information on planned safety measures and emergency response procedures involving cyanide.
- Documents and summaries of cyanide-related incidents.
- Inspection reports from the Civil Association Forum for Hazardous Substances.
- IPPC documentation, including Annual Environmental Reports (AERs).
- Various government inspection reports.

Stakeholder engagement is further supported through regular inspections, published reports, and direct outreach. Contact details are available online, and the site maintains an open-door policy. No complaints were recorded during this audit cycle.

GK also hosts five annual site visits by the Public Council of Kardzhali, which publishes its findings on the GK website. GK shares its IEP annually with neighbouring businesses and notifies neighbours of scheduled emergency drills. Educational tours for university and school groups were conducted between 2022 and 2025, with induction records available.

### Standard of Practice 9.2

**Make appropriate operational and environmental information regarding cyanide available to stakeholders.**

The operation is  in full compliance with Standard of Practice 9.2  
 in substantial compliance with  
 not in compliance with

#### Summarise the basis for this Finding/ Deficiencies Identified:

The operation is in full compliance with Standard of Practice 9.2; to make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation developed written descriptions of how their activities are conducted and how cyanide is managed. These descriptions are available to communities and other stakeholders.

GK has developed publicly accessible documentation describing its operational practices and approach to cyanide management. The Information on Planned Safety Measures and Emergency Response Procedures Involving Cyanide document, available on the company's website, provides an overview of site operations and outlines the key elements of the emergency plan. It also offers a comprehensive description of the processing facilities and the use of cyanide in gold recovery.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS) data, Bulgaria's most recent adult literacy rate is reported as 98.42%.

The operation makes information publicly available on confirmed cyanide release or exposure incidents.

GK maintains a dedicated link on its website that provides public access to confirmed cyanide release and exposure information. The data is presented in a table that covers the following categories:

- Exceedances of permissible cyanide limits.
- Incidental releases as defined by regulatory requirements.
- Incidental releases causing adverse effects on human health or the environment.
- Responses to incidental releases.
- Fatalities resulting from cyanide exposure.

The most recent document available on the company's website, covering 2021–2024, reports zero cyanide-related incidents across all categories. This remained the case for 2025 up to the date of the audit.

## 5. LIMITATIONS

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