

***INTERNATIONAL CYANIDE
MANAGEMENT INSTITUTE***

***Cyanide Code Compliance Audit
Gold Mining Operations***

Summary Audit Report

***MIDROC Gold Mine PLC
Legadembi Gold Mine
Ethiopia***

18th – 26th August 2025

***For the
International Cyanide Management
Institute***



Name of Operation: Legademi Gold Mine

Name of Operation Owner: MIDROC Investment Group

Name of Operation Operator: MIDROC Gold Mine PLC

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Location detail and description of operation:

The Lega Dembi Cyanide Facility, part of the Midroc Gold Mines PLC, is located approximately 500 kilometres south of Addis Ababa in the Shakiso District, Guji Zone of Oromia Regional State, Ethiopia. It is geographically bounded between 5°40'-5°45' N latitude and 38°50'-38°55' E longitude.

Ore Receipt

Ore for the Lega Dembi Cyanide Facility is sourced from three locations: open-pit run-of-mine ore (ROM-Ore), Legademi underground ore, and Sakaro underground ore, and is initially stored as a primary stockpile. The received ore is sorted, and the undersize material is fed to the crushing plant by loaders. The oversize (>800 millimetres) is either taken back to the sources' oversize stock or broken by boulder breaker at the stockpile (which is now becoming customary).

Crushing

The two simultaneous Crushing plants, each consisting of three sequential stages, which are named primary, secondary, and tertiary crushing.

- The Primary crusher, a jaw crusher, reduces the primary stock that comes through F-100 to a size less than the jaw's close size setting (CSS). The CSS of the jaw is 120mm.
- The Secondary Crusher, which is a superior/gyratory crusher, reduces the secondary stock to a particle size of <50mm.
- The tertiary Crusher reduces ore particles from 50mm to <20mm particle size.



Grinding

Grinding is also a size reduction unit operation primarily used to grind crushed ore (fine stock of material <20mm weighted by using a weight meter before feeding to the mill) into a particle product (80% of the material is less than 130 µm, which is called d80), which is in suspension in water.

In the Rod mill, the construction dimensions are a 3.4m inside diameter and a 5.6m nominal length, rotated by an 800kW motor, using rods as grinding media in the open circuit.

The Ball mill, measuring 6.2m in length and 3.8m in diameter, is driven by a 1400kW motor and uses balls as grinding media. It operates in a closed circuit with a hydro cyclone classifier, producing two classes of products. One class is the cyclone underflow, which consists of coarser and heavier material that will be fed back to the Ball mill to be reground. A heavy coarse material remains in this closed circuit until it attains the required particle size (<130 µm) as part of the circulating load. The other class is cyclone overflow, consisting of lighter fine material (<130µm) that gravitates to the thickener via a de-sanding screen with a 0.75mm mesh opening.

Lime is added to maintain the high pH of the leach in this unit and enhance the settling rate in the thickener. In addition, an emergency lime tank is available in the reagent room for emergency situations only. The water used for the plant source is from three points. The first and the highest capacity is from the river. The second is from the first tailing dam, recycled water, and the third (rarely used) is harvested water.

Thickener

The Delkor Enviro Clear High Rate Thickener is used to increase the percentage of solids in the slurry from 27-30% to 47-53%. Its general objective is to provide clean overflow water and thick (47-53% solid) underflow slurry. Flocculants are typically used to agglomerate the solids, increasing the settling rate and improving the overflow clarity.

Reagents

The reagent room is used to prepare three reagents used in thickening and leaching.

The first reagent is Flocculent. It is prepared here to serve the Thickener unit operation for settling purposes. One preparation tank and two holding tanks are installed with screwdriver hoppers that feed solid flocculent to the preparation tank. The flocculent preparation system is fully automated.

The second reagent is lime, and it is currently being used for emergency purposes on the leach. i.e., if the pH of the leach is less than 9.8.

The third reagent used is cyanide. The cyanide reagent system is a critical, fully automated subsystem designed for the safe and precise preparation, storage, and dosing of sodium cyanide (NaCN) solution for the leaching process. Its primary function is to ensure a continuous and reliable supply of cyanide at the



required concentration for optimal gold dissolution, while prioritising operator safety and environmental containment.

Leaching

Leaching is the extraction of desired constituents or solutes from a solid mixture using a solvent. The solvent selectively dissolves the solute/required component. That is, it changes the components phase. Leaching is a mass transfer operation (from the insoluble solid mixture to the solvent). In our case, the solute is gold and the solvent is sodium cyanide solution. Leaching is a chemical process for the dissolution or extraction of gold and silver from their ore using a diluted sodium cyanide solution. The Cyanidation process takes place in six sequentially interconnected leach tanks. Each leach tank is a flat-bottomed, cylindrical, open-topped tank with a capacity of 1645m³. It is mechanically agitated by top-entry twin impeller agitators, with baffles placed around its circumference to enhance turbulence. Agitation increases the eddy diffusion and therefore the transfer of materials (gold) from the surface of ground particles to the bulk of the solution. Thickened slurry (average 50% of solids) from the thickener underflow is pumped to the first leach tank, where it meets a dilute solution of a cyanide compound (NaCN-sodium cyanide) and compressed air that surges at the bottom of the tank. The first material that enters the leach tank leaves first (FIFO-First In First Out) through an up-comer (channels through which the slurry flows to exit the tank), allowing all particles to retain their residence time. The leach is designed to achieve a gold recovery efficiency of over 93%.

Dissolution of the gold takes place according to Elsner's equation: -
 $4\text{Au(s)} + 8\text{NaCN(aq)} + \text{O}_2\text{(g)} + 2\text{H}_2\text{O(l)} \rightarrow 4\text{NaAu(CN)}_2\text{(aq)} + 4\text{NaOH(aq)}$

Adsorption

The adsorption circuit is a post-leaching process to concentrate gold in aqueous solution using activated carbon. The circuit is designed to adsorb gold dissolved in a dilute cyanide solution during the previous leaching circuit using activated carbon. The pulp from the leach circuit is fed to the first of six sequentially arranged, mechanically agitated, open-topped, cylindrical contactors, each with a 150m³ volume capacity. The pulp flows from one contactor to the next by gravity, through an interstage screen that allows carbon to remain inside the contactor while the rest of the pulp passes through. Barren pulp from the last contactor passes through a safety screen to recover any loaded carbon that escaped the inter-stage screens. The barren pulp, which is waste from the processing plant (tails), then goes to the tailings dam. Fresh/eluted activated carbon is charged on contactor six and pumped back from contactor to contactor counter, currently against the flow of pulp, until it reaches the first contactor, where it is harvested by greater than 3000g/t of gold content carbon.

Acid Washing

The acid washing circulation is a process where loaded carbon is treated with a dilute (3%v/v) hydrochloric acid solution in the acid wash tank to remove calcium,

magnesium, sodium salts, silica, and fine iron deposits, thereby enhancing elution kinetics. The acid is then thoroughly flushed from the carbon with water to remove any hydrogen gas and inorganic deposits on the surface of the loaded carbon. Otherwise, higher residual gold on the barren carbon exists due to a reduction in the desorption kinetics. This acid-washed and water-flushed loaded carbon is now pumped to the elution column for further treatment.

Elution

Elution is the reverse process of the adsorption process, where gold that is on the activated carbon particles is desorbed into an aqueous solution (electrolyte). This gold-containing pregnant solution, called the electrolyte, circulates through electro-winning cells in the gold room.

The elution circuit consists of four distinct sequential operations; hence, they bear the naming sequence: -

1. Sequence one - loaded carbon transfer
2. Sequence two - Flushing the elution column with water and draining the water.
3. Sequence three - elution contains four sequential stages, namely:
 - a. Pre-soaking involves soaking the loaded carbon with a dilute caustic solution at an elevated temperature to reduce carbon gold adsorption capacity. This is performed by circulating the eluent solution from the eluent make-up tank (EMT) to the elution column, via a heat exchanger where eluent and boiled water from the boiler exchange heat.
 - b. Eluent transfer after the eluent solution temperature is raised to the optimum (65-70° C) in the previous pre-soaking stage. Eluent is redirected from the EMT to the electrolyte tank.
 - c. Stripping caustic-soaked, loaded carbon stripped of gold by hot water, and the resultant gold-bearing solution goes to the electrolyte tank, joining the eluent solution, which was previously transferred from the EMT.
4. Sequence four - Eluted carbon transfer. Finally, Carbon stripped of gold, technically termed as eluted carbon, is transferred from the elution column to the eluted carbon tank, leaving the elution circuit. After being used once, eluted carbon is not rejected as waste; rather, it is regenerated and recycled for reuse.

Electrowinning

Electro-winning is the process of electrolytic recovery of metals from the electrolyte pregnant (metal-bearing) solution using electrical energy by applying basic principles of electrolysis. Electro-winning cells are used to treat the high-grade eluate by passing an electrical current through the solution. Electro-winning cells operate batch-wise in a closed circuit with the electrolyte tank until the gold content of the electrolyte is reduced to the barren level (5-10ppm). A voltage, which exceeds the reversible electrode potential of the reaction, is applied across a pair of electrodes immersed in the solution. The cell contains a set of cathodes (negative electrodes) and anodes (positive electrodes) immersed in a gold-bearing electrolyte solution that continuously circulates from the



electrolyte tank mentioned above. This electrolyte solution acts as a conductor between the cathodes and anodes.

When the rectifier is switched on, an electric current begins to flow from the cathodes to the anodes through the electrolyte solution. This completes the electro-winning circuit, causing solid gold to plate out on steel wool cathodes, which are removed periodically for further refining.

After losing its gold to the cathode of the electro-winning cell, the pregnant solution becomes barren liquor that will be pumped back to the leaching circuit.

Smelting

Smelting is the final stage in the production of gold. The purpose of smelting is to remove the metallic and other impurities in the slag phase, and produce a gold-silver bullion containing typically >95% precious metals. It is achieved by heating the calcined powder in the presence of slag-forming fluxes, at temperatures in excess of the melting point of the calcined gold slime and the components in the charge. This smelt temperature is maintained for a period to ensure complete separation of the impurities into the slag. The molten gold and silver form an alloy that is heavier than the slag and hence sinks to the bottom of the smelting crucible. The gold-silver alloy is then cast into bars by pouring the molten charge out into moulds.

Tailings

Tailing effluent treatment utilizes free cyanide destruction by natural degradation by holding the tails in three tailing dams. Decant water is then recycled from the dam to be used again in the processing plant.

Chemical detoxification of cyanide residue is then employed. The Cyanide detoxification plant assists the natural degradation by oxidizing the remaining free cyanide in the effluent water from the 2nd dam using calcium hypochlorite ($\text{Ca}(\text{OCl})_2$) and chemically releasing reasonably harmless water to the 3rd dam.



Auditor's Finding

This operation is

X in full compliance

in substantial compliance *(see below)

not in compliance

with the International Cyanide Management Code.

* The Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: Eagle Environmental

Audit Team Leader & Mining Technical Auditor: Arend Hoogervorst

E-mail: arend@eagleenv.co.za

Dates of Audit: 18th – 26th August 2025

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Mine Operations and using standard and accepted practices for health, safety and environmental audits.

MIDROC Legademi Gold Mine



05/01/2026

Facility

Signature of Lead Auditor

Date

Legademi Gold Mine


Signature of Lead Auditor

2nd January 2026

Acronyms and Abbreviations used in this Summary Audit Report

AGR – Australian Gold Reagents Pty Ltd, Australia
Birr – the basic monetary unit of Ethiopia, equal to 100 santims
CIL – Carbon-In-Leach
CIP – Carbon-In-Pulp
CPR - Cardiopulmonary Resuscitation
Dw – Drawing
EC – “Ethiopian Calendar,” which is 8 years behind the Gregorian calendar
EMRDC – Ethiopian Mineral Resource Development Corporation
EMT – Effluent Makeup Tank
ERP – Emergency Response Plan
ERT – Emergency Response Team
ETB – Ethiopian Birr (currency)
GISTM – Global Industry Standard on Tailings Management
HCN – Hydrogen Cyanide
HDPE – High Density Polyethylene
ICMC – International Cyanide Management Code
ICMI – International Cyanide Management Institute
ICOLD – International Commission on Large Dams
KPIs – Key Performance Indicators
LUG – Legadembi Underground (ore)
Mg/L – Milligrams per litre
MGM – MIDROC Gold Mine
MOU – Memorandum of Understanding
NaCN – Sodium Cyanide
pH - relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline)
PMS – Planned Maintenance System
PPE – Personal Protective Equipment
ppm – Parts per Million
PPME – Practicing Professional Materials Engineer
PPSTE – Practicing Professional Structural Engineer
PTO – Planned Task Observation
SDS – Safety Data Sheet
SIMM Report - Structural Integrity Management Monitoring Report – corporate risk monitoring system for plant structures.
SOP – Standard Operating Procedure
TSF – Tailings Storage Facility
TUF – Thickener Underflow
UN – United Nations
WAD – Weak Acid Dissociable
WIBC – Wooden Intermediate Bulk Container



Auditor's Findings

Principle 1. PRODUCTION AND PURCHASE:

Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.

Standard of Practice 1.1: 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.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 1.1**

not in compliance with

Basis for this Finding/Deficiencies Identified:

MIDROC Legadembi Gold Mine obtains its solid sodium cyanide from Australian Gold Reagents Pty Ltd., Australia (AGR), and Orica Australia Pty Ltd (Orica)

AGR has supplied the most recent cyanide from its Kwinana Australian facility, which was certified on August 28, 2023. Wooden Intermediate Bulk Containers (WIBCs) of AGR-supplied solid sodium cyanide briquettes were sighted in the Solid Cyanide Store. No deliveries are expected from AGR in the future.

Orica also supplies sodium cyanide to the operation, and the next shipment is due from them. Orica Yarwun is a certified cyanide production facility, which was certified on 31 October 2023.

All producers were certified as of the date of the certification audit. Thus, this question is fully compliant.

Principle 2. TRANSPORTATION:

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.

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

Basis for this Finding/Deficiencies Identified:

As Legadembi Gold Mine obtains its sodium cyanide briquettes from both Australian Gold Reagents Pty Ltd., Australia (AGR), and Orica Australia Pty Ltd (Orica), it uses both the AGR and Orica Supply Chains. However, no deliveries are expected from AGR in the future.

AGR Supply Chains

AGR's **Australian Supply Chain** (formerly referred to as the Western Australian Supply Chain) covers transport from the Kwinana production facility. It uses rail and road transport to end user mine sites in Western Australia and rail transport to South Australia and Victoria. Additionally, it includes road transport to Fremantle Port for export supply. For export products, this supply chain includes the stevedoring operation at Fremantle Port.

AGR's **Africa Supply Chain** includes receipt and management of cyanide at the ports of Conakry (Guinea), Takoradi (Ghana), Tema (Ghana), Walvis Bay (Namibia), King Abdullah (Saudi Arabia), Durban (South Africa), and Dar es Salaam (Tanzania). MIDROC uses its own trucks to deliver solid cyanide from the port of Djibouti to the Legadembi mine site.

Orica Supply Chain

Orica's **Australia Supply Chain** includes the transportation of liquid and solid sodium cyanide from Orica's manufacturing facility in Yarwun, Australia, via road and rail to its end point users within Australia and to the Ports of Brisbane and Melbourne, using certified transporters. The certified transporter ROTC/Lake Fox was acquired by Centurian Transport in 2023 and remains certified under that name.

Orica's **Global Marine Supply Chain** currently includes the shipping lines Australia National Line, COSCO, Evergreen, Hamburg Sud, Hapag Lloyd, Maersk, Mediterranean Shipping Company, Naviera Ultrana Transmares, Neptune Pacific Direct Line, Ocean Network Express (ONE), PT Tamas Shipping, Orient Overseas Container Line, Pacific International Lines (PIL PAE), Sinotrans Container Lines, Swire Shipping, Tanto Intim, Toll Shipping, U&D Ocean Shipping, Langoog MLB Manfred. It also includes the ports of Abidjan, Ad Dammam, Angamos, Antioquia, Auckland, Beira, Belawan, Bitung, Brisbane, Buanaventura, Buenos Aires, Burnie, Busan, Callao, Cartagena, Chalmers, Conakry, Corinto, Cortes, Da Nang, Dakar, Dar Es Salaam, Deseado, Fremantle, Gladstone, Guaymas, Haiphong, Ho Chi Minh City, Honiara, Izmir, Jakarta, Klang, Lae, Laem Chabang, Lazaro Cardenas, Lihir, Lyttleton, Manzanillo, Melbourne, Mersin, Monrovia, Port Moresby, Nhava Sheva, Ningbo, Palu, Paramaribo, Prince Rupert, Punta Arenas, Rockhampton, Salvador, San Antonio, Santa Marta, Santos, Shanghai, Sihanoukville, Singapore, Surabaya, Takoradi, Tauranga, Tema, Townsville, Vancouver, and Walvis Bay. The Global Marine Supply Chain does not currently include the port of Djibouti. However, the ICMI has reported that a due diligence of the port has been completed by an ICMI Transport Auditor, and the addition to the Orica Global Marine Supply Chain is imminent.



MIDROC uses its own trucks to deliver solid cyanide from the port of Djibouti to the mine site, and the MIDROC transport certification of full compliance was announced by the ICMI on 29th September 2025.

Principle 3. HANDLING AND STORAGE:

Protect workers and the environment during cyanide 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.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The cyanide unloading, storage, and mixing facilities have been designed and constructed according to sound and accepted engineering practices, supported by the engineering drawings. Davy McKee Engineering drawings and documents sighted included: - “EMRDC Lega Dembi Gold Plant Leach Tank Area and Flocculant Preparation Area” Drawing (Dw) No c7566-C300-EG00-ED012, “Lega Dembi Gold Plant Lime, Cyanide and Flocculant Mixing & Storage”, Dw No, C7566-C300-E19/XD-205, and “Cyanide Preparation and Cyanide Storage Tank Specifications in Equipment Specifications”, Items 09 007 and 09 008, pages 24-25, “Reagent Tank Mat Slab & Beam Layout Plan & Section”, Dw ST 05/5, dated May 2025. All tanks have solid, concrete impermeable bases. (Confirmed in the engineering drawings.)

Cyanide unloading, mixing, and storage facilities are located away from people and surface waters. Confirmed during site inspection. The cyanide mixing area is located inside a building that has a sloped, concreted floor to contain any spillage from the cyanide briquette boxes. The bags of cyanide briquettes are lifted by crane from the box and lowered into a hooded splitter (to contain any cyanide “dust” arising when the briquettes fall), prior to falling into the mixing tank. Cyanide mixing and storage tanks are located on a concrete surface that can prevent seepage to the subsurface. Secondary containments for cyanide mixing and storage tanks are constructed from concrete, which provides a competent barrier to leakage. This was all confirmed in the site drawings and during the site inspection.

The Instrument Engineer reported that a new automated system has been installed, which measures the levels in the tanks and reports them to a screen located near the mixing tank. The maximum level is 90% at which point the inflow is automatically stopped. The Low-level indicator is 20%. There are daily, weekly, and monthly inspections. Two level sensors are in place on the holding tank, one to confirm the accuracy of the other. There is an engineering procedure, “LLT100 Laser Level Transmitter – Cyanide Mixing and

Holding Tanks,” in place. The purpose of the engineering SOP (Standard Operating Procedure) is to offer clear, practical instructions for the safe handling, operation, inspection, and maintenance of essential electrical components in the cyanide preparation process. Its goal is to promote safe work practices, ensure equipment reliability, and uphold health, safety, and environmental compliance.

The procedure, “SOP-Cyanide Spill Cleanup and Decontamination,” establishes a clear process for effectively cleaning up and decontaminating spills during cyanide offloading, loading, and operational processes at the Legadembi Mine site.

The solid cyanide store contains high-level ventilation holes to prevent the buildup of hydrogen cyanide gas. Fans have been added on the ceiling and on the wall to increase ventilation throughflow. No incompatible materials, such as acids, strong oxidizers, and explosives, and apart from foods, animal feeds, and tobacco products, are stored within the solid cyanide store (a dedicated cyanide store) or in the bunds of the cyanide facilities. This was confirmed during the site inspection.

The mixing and storage tanks are located inside a building with open side sections, allowing a throughflow of air to prevent HCN gas build-up. The cyanide store, along with the mixing and storage area, is contained within the locked and access-controlled security area of the Gold Processing Plant.

***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.*

X in full compliance with

- The operation is**
- in substantial compliance with **Standard of Practice 3.2**
 - not in compliance with

Basis for this Finding/Deficiencies Identified:

No liquid cyanide is delivered to the site, and no hose connections and couplings are used in the cyanide mixing process. Empty wooden cyanide boxes, liners, and bags are taken to an incinerator onsite and disposed of by incineration. The “Empty Cyanide Box Incineration Procedure” establishes guidelines for the safe handling and incineration of cyanide boxes at the company's waste management facility, ensuring compliance with environmental, health, and safety regulations. The procedure, “Controlled Disposal of Cyanide Packaging”, is to “...establish a procedure for cyanide package disposal and to set out procedure (sic) which outlines safety measures that must be taken while disposing cyanide package (sic) so that the health and safety of the involved person shall be maintained accordingly...”

The “Sodium Cyanide Loading and Unloading Procedure” describes the steps and sequence of activities involved in unloading a sodium cyanide container and transporting and unloading Sodium Cyanide Containers into the Reagent Preparation Room. The “SOP (Standard Operating Procedure)-Sodium Cyanide Containers Return” summarises the safe and compliant technique for sweeping residual sodium cyanide from shipping

containers before their return. Forklift truck drivers undergo specialised training and refresher training. They are trained internally. Informal observations are undertaken during offloading. The Safety Officer observes the cyanide offloading and documents the findings. The maximum stacking height limit of three boxes high is the recommendation of Orica and AGR. No stacks higher than three boxes were sighted in the store. The practice is to try to store boxes no more than 2 high. The site inspection showed boxes mostly stacked three high, with some stacked two high.

No cyanide drums are used on site. Sea containers used to transport the wooden cyanide boxes are returned to the Shipping Company. Containers are cleaned of cyanide particles and wood fragments before being returned, as per the procedure, “SOP-Sodium Cyanide Containers Return”. Plastic Bags are triple rinsed according to the procedure, “Controlled Disposal of Cyanide Packaging.” Thereafter, they are incinerated in terms of the procedure, “Controlled Disposal of Cyanide Packaging”.

The procedure, “SOP-Cyanide Mixing Process”, spells out the required tasks and sequence of tasks involved in mixing solid cyanide into a liquid sodium cyanide solution. The “SOP-Cyanide Spill Cleanup and Decontamination” establishes a clear, prompt procedure for effectively cleaning up and decontaminating spills during cyanide offloading, loading, and operational processes at the Legademi Mine site.

The procedure “SOP - Buddy System working in Cyanide Facility” includes buddy pairing, PPE requirements, pre-task checks, emergency situations, training requirements, and communication. During the mixing process, the observer is a chief protection officer (from the security department) who is trained to react in the case of emergencies. All tasks involving high-strength cyanide or equipment including high-strength cyanide must be performed in the presence of a buddy/observer.

Orica and AGR, the cyanide producers who supply sodium to the site, add a red dye (carmoisine) to their boxes of solid sodium cyanide briquettes. The site does not add dye.

Principle 4. OPERATIONS:

Manage cyanide process solutions and waste streams to protect human health and the environment.

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.

X in full compliance with

The operation is

in substantial compliance with **Standard of Practice 4.1**

not in compliance with



Basis for this Finding/Deficiencies Identified:

On the Legadembi Gold Processing Plant, there are: - 26 operational cyanide procedures, 17 Engineering cyanide procedures, and 37 Environmental cyanide procedures. These procedures are used to systematically manage cyanide facilities in the plant.

With regard to the TSF, the Legadembi Tailings Dam Safety Audit and Management document, Section I – Safety Management Framework, is included on page 66. The purpose of the Framework is to establish a systematic approach for managing the safety of the TSF. Some of the components of the Safety Management framework include: - Governance and Policy, Operational Controls, Instrumentation and Monitoring, and Risk Management. Emergency Preparedness, Environmental Management, Training and Capacity Building, Stakeholder Engagement, Continuous Improvement, and Post-Closure and Sustainability. Also included on Page 69 are statements ensuring compliance with international standards (ICOLD, GISTM) as well as national regulatory requirements.

Section II: Operation And Maintenance Manual. The manual includes the operation of the TSF under normal, abnormal, and emergency conditions. The manual defines emergency types and scenarios, which develop into Section III – Emergency Preparedness & Response Plan.

Section II includes 2.6 -10 Key Operational Procedures: -

- Tailings Dam Structure Inspection
- Tailings Transportation and Deposition
- Water Management (Decanting & Recycling Systems)
- Seepage Control
- Instrumentation and Monitoring
- Cyanide Management
- Infrastructure Maintenance
- Operational Safety Guidelines
- Environmental Protection, and
- Emergency Preparedness

On page 72, Section 2.7 contains 8 Maintenance Procedures: -

- Routine Maintenance
- Preventative Maintenance
- Corrective Maintenance (Immediate actions)
- Monitoring Equipment Calibration
- Emergency Equipment Maintenance
- Documentation and Record Keeping
- Annual Assessments
- Long Term Maintenance Planning

There is a weekly, minuted Management Meeting that addresses TSF issues and generates actions to be taken at the TSF.

There is also a minuted, Water Committee for the TSF which meets weekly for urgent issues. It discusses the Probabilistic Water Balance and reviews water performance. There is also a weekly TSF Management meeting that reports to various other structures, such as the Metallurgy Department. There is also a Plant “SOP-Cyanide Discharge Concentration to the 1st Tailings Dam and Surface Area”, in place.



The TSF design freeboard is 1 metre, but the current freeboard is 2 metres (Lega Dembi Tailing Dam Safety Audit and Management document, page 15). The legal maximum requirement for cyanide to be released to surface water is less than 0.1 ppm free cyanide. Current WAD cyanide levels are less than 0.02 ppm, and levels in the TSF pond, impoundments, and conveyance channels are 10 ppm WAD cyanide. The regulatory authorities set a maximum limit for discharge to the natural environment, which is 0.07 mg/l Cyanide (as CN). Average annual discharge levels are 0.02 mg/l from the TSF. The discharge is monitored twice per day.

The operation has a water management plan, a probabilistic water balance, and a preventative maintenance system (PMS). The site carries out and documents operational inspections and planned maintenance inspections. The scheduling of inspections is documented in an Excel spreadsheet-based Planned Maintenance System. The Daily Checklist for Tailings Dam Embankment dated 8 June 2025, titled "Corrective Action Implementation Format for Tailings Dam Preventative Maintenance," was sampled.

The Water Management Plan is to control water inflows, outflows, and storage to prevent contamination, dam failure, and environmental harm. Key components of the water management plan include: - 3.1 the Diversion system, (including diversion of runoff), 3.2 Stormwater Management, 3.3 Water Storage & Decant Systems, and 3.4 Seepage & Contamination Control.

The SOP – Cyanide-Specific Change Management” establishes a formal process to systematically evaluate, approve, implement, and document all modifications involving cyanide handling, ensuring: Risk Assessment, Competent Approval, Controlled Implementation, and Audit Compliance. The following change management exercises were sighted and reviewed: -

- Change Management Report: - Installation of Stalker Pump for Water recirculation at Tailings Dam, July 2025.
- Change Management Report: - installation of Free Cyanide Optimizer and WAD (Weak Acid Dissociable) cyanide Monitoring system.
- Change Management Report: - Reduction in WAD Cyanide levels in the discharge from the CIP process before it enters the first tailing dam. April 2025

All of the reports showed a reduction in cyanide risk.

Upsets in the operational water balance are managed using the water management plan and through weekly discussions at the Water Management Committee. The SOP – “Cyanide-Specific Change Management” is also used. Problems have been identified during inspections and elevated to the weekly management meeting. The Water Management Committee minutes discussing the comparison of manual versus automated monitoring systems for TSF water management were also sighted. The operation has identified key concerns of the events or scenarios and developed planned responses. These are included in “SOP- for Cyanide Management Contingency for Non-standard Operating Conditions”. The procedure includes triggers for implementation, specific responsibilities for key Heads of Department, detailed task steps, emergency response, and resumption of operations (including a pre-start safety review for resumption of full operations).

Inspections were carried out on the following: -

Tanks



Supervisors and artisans carry out daily visual inspections of tanks, but these are not formally documented, except for possible inclusion in the shift logbook. The Thickness Measurement Record for Cyanide Mixing and Cyanide Holding Tanks, completed on 23/07/2025, was sampled. The inspection checklist (12/12/2025) for the Cyanide Mixing Tank and Cyanide Holding Tank, covering the inspection of tank shell plates, signs of corrosion, build-up of cyanide salts, weld condition, and absence of cracks and defects, as well as the foundation condition, was sampled. No defects sighted.

Secondary Containments

Bund inspections are carried out by shift leaders and production heads twice per day. The Inspection Checklist for Secondary Containments of Tanks, Ponds and Impoundments (7/11/2025), including whether the containment structure is free, seepage presence, free from visible cracks, leaks, or signs of deterioration, signs of erosion or settlement, freeboard, condition of liner, drainage systems are functional and not blocked, was sighted. Production heads carry out periodic over-inspection. The SOP- Secondary Containment Inspection of Secondary Containment for Tanks, Ponds, and Impoundments, includes categories for the inspectors to check.

Leak Detection and Collection Systems

The TSF has seepage collection systems that return the seepage to the reclaim dam. Visual inspections of the various seepage systems are in place. (Solution contents are below 0.5 Mg/L WAD cyanide, thus these are not regarded as cyanide facilities.) There are no leak detection or collection systems in place on the Plant.

Pipelines, Pumps, and Valves

Daily and weekly TSF pipeline inspections are carried out by the TSF operator. The Weekly Checklist for Tailing Discharge System and the Daily Inspections Checklist were sampled and sighted. The TSF SOP-Tailings Inspections, was sighted and reviewed. Inspections of high-strength and low-strength pipes, conducted daily, weekly, monthly, quarterly, and yearly, are documented.

The Plant SOP-Cyanide Transfer & Cyanide Dosing Pumps inspection, was sighted and completed examples were sampled and reviewed. Daily inspection of pump temperature, vibration, unusual sounds, condition, and leakage is covered. The Inspection Checklist for the Leach Tank Gear Box, Agitator & Leach Area Sump Pump, CIP (Carbon-in-Pulp), dated 01/10/2025, was sampled, and there were no deviations.

Smaller valves are run to breakdown. Weekly inspections of larger valves include opening to check the condition of the valve tongue and for maintenance. The inspection checklist for General Piping and Valves & Couplings for the Cyanide Mixing and Holding Area, Leach Area, and Elution and Detoxification Area, dated 12/12/2025, was sighted, and no deviations were noted. High-strength cyanide pipes in HDPE (High-density polyethylene) are included in a second pipe (“pipe-within-a-pipe”) to collect any leaks.

Parameters of Ponds and Impoundments

The “SOP-Tailings Dam Inspection” establishes a systematic procedure for inspecting and monitoring the tailings dam to ensure structural integrity, water management compliance, safety, and environmental protection.

These parameters are discussed daily when discussing the water management plan. There is a dedicated water management committee in place. Management committee minutes from 15-9-2025 were sighted, including discussions on a significant blockage in the drainage canal connecting the Detox Plant to the 3rd Dam. This was caused by the accumulation of sediment due to heavy rainfall. Mechanical dredging was used to clear the blockage within 5 Days.

Inspections of surface water diversions are carried out by the plant, the Environmental Department, and the TSF staff. Repair work is carried out using the Mining Department's heavy earth-moving equipment, which is ordered through the job card system. The "SOP-Inspection of Secondary Containments for Tanks, Ponds and Impoundments" was sighted. The purpose of the SOP is to establish a consistent and thorough inspection process that identifies potential risks, ensures containment reliability, and supports timely corrective actions.

The site undertakes shiftly, daily, weekly, monthly, quarterly, 6-monthly, and annual inspections. The auditor deems that inspections at Legadembi are carried out at a frequency sufficient to ensure and document that cyanide facilities are functioning within design parameters. Inspection documentation identifies specific items to be observed and includes the date of the inspection, the name of the inspector, and any observed deficiencies. Actions to be implemented will be through the raising of a job card. A range of inspection documentation was sampled, reviewed, and found to meet Cyanide Code requirements. The Plant Cyanide Facilities Mechanical Maintenance Tracking Records are analysed annually to optimise repair and planned inspection scheduling. The nature and date of corrective actions are documented, and records are retained. Records were sighted during discussions with the Mechanical Divisional Head and the Maintenance Planner.

The site uses a Planned Maintenance System based on an Excel Spreadsheet. This includes scheduling, history of repairs and inspections, analysis of the most time taken for equipment repair, and the most spares utilised. The Excel spreadsheet generates jobs to be done daily, weekly, two-weekly, monthly, quarterly, 6-monthly, and annually. A manual job work order is raised, and a related checklist is printed.

Two dedicated cyanide generators with automatic switchovers have been installed to power mixing, leach, CIP (Carbon-in-Pulp), and Elution. One dedicated backup generator has been installed to power the tailings dam return water pump. Power backup is also supplied to the detox facility. During power outages, the entire cyanide facility can be run on backup generators. All generators are covered in the PMS (Planned Maintenance System).

Standard of Practice 4.2: Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

X in full compliance with

- The operation is**
- in substantial compliance **with Standard of Practice 4.2**
 - not in compliance with



not subject to

Basis for this Finding/Deficiencies Identified:

Ore characterisation has been undertaken, and the previous dosing level was 0.48 kg per ton. Leach tests have been undertaken to assess what gold may be going to the TSF. The Plant Metallurgical Laboratory can do leach settling tests, carbon activity tests, and size analysis. Sighted cyanidation Test Work on TUF for LUG Ore on 6 December 2024, showing varying recovery rates at different dosing rates and pH. Owing to licence restrictions, ores are not blended, but fed in batches per ore source.

Further ore characterisation has been done. The site added a TAC 1000 (proprietary name) Free analyser optimiser and an online WAD analyser, and cyanide consumption dropped from 0.48kg of sodium cyanide to 0.37 kg of sodium cyanide per ton.

The Procedure, “Cyanide Optimisation Policy and Operational Framework,” aims to optimise cyanide consumption and handling in gold extraction processes to improve metallurgical performance, reduce costs, and comply with health, safety, and environmental regulations, including the ICMI Cyanide Code.

***Standard of Practice 4.3:** Implement a comprehensive water management program to protect against unintentional releases.*

X in full compliance with

The operation is

in substantial compliance with **Standard of Practice 4.3**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The TSF PWB (Probabilistic Water Balance) Procedure covers the three water storage dams that make up the Legadembi TSF. The Plant has its own Excel spreadsheet-based Probabilistic Water Balance (PWB) described in a procedure. Both PWBs include a description of the PWB, complete inputs and outputs, and a diagrammatic representation with data to support the assertions. The two models are basically the same, except that the scope of the TSF PWB covers the TSF footprint, and the Plant PWB scope covers just the Plant.

Common PWB Characteristics

The PWB includes ore throughput, ore moisture, precipitation, evaporation rate, process water additions, tailings density, and decant return rates. It considers inflow to the dam, hourly solid output of the overflow, pulp density of the overflow, and in-situ dry density. The model is set to test 1:2 year, 1:25 year, 1:50 year, 1:100 year, 1:500 year, 1:1000 year, and 1:10000-year (required by the regulator) 24-hour storm duration rainfall events ranging from 109 – 209 mm. In those situations, the model indicates that there will not be any overtopping. The model uses actual site rainfall and evaporation data, with precipitation data recorded on site. Precipitation records go back 30 years. The evaporation rate is set at 1,200 mm per annum, based on site-specific data. Data also

comes from a local meteorology station. The TSF PWB has a 10 km square catchment and uses the Tyson-Polygon method to consider the topography. Also considered are the various diversions to keep the water away from the catchment. There is a stormwater diversion system in place, so it is unlikely that there is any run-on. The Plant PWB reports that, as no reservoir accommodates stormwater, diversion of stormwater is not included in the scope of the Plant PWB. The system boundaries of the Plant PWB cover all the processing plant components, from crushing to tailings discharge. Accumulation of precipitation as a result of freezing and thawing conditions is not a significant concern in Ethiopia, which is 15 degrees north of the Equator. Solution losses are included in both PWB parameters. The effects of power outages are included in the section covering recycled water, where they can be interpreted as zero values for the pumps. These would simulate power outages or pump failures.

The emergency cyanide destruction plant (which is manned on a 24/7 permanent standby) is factored into the PWB model, but there are no cyanide treatment, destruction or regeneration systems associated with the Plant PWB. Phreatic surface measurements are factored into the TSF PWB model; seepage is measured, and spillways at different levels are also considered. This is not the case in the Plant PWB model. In the TSF PWB, Impoundments operate at 1 metre above the freeboard. There is a maximum freeboard of 3 metres, the current freeboard is 2m, and if the 1:10000 events occurred, there would still be a spare 70 centimetres of freeboard capacity. The Plant PWB includes all inflow and outflow sources. The procedure reports that since there is no reservoir to accommodate stormwater, the diversion of stormwater is not included in the scope of the Plant PWB.

At the TSF, regular inspection and monitoring are undertaken, including daily inspections. The Pool is measured weekly using a gauge, and surveys are also undertaken. Use of drones is not yet permitted by law. For the Plant PWB, examples of daily dam water management system inspection checklists were sighted. With regard to the TSF PWB, the surrounding land use has not changed significantly, and past reviews have suggested that there would be no significant changes in performance over time. The consultants will periodically review and update the inputs as appropriate. The Plant PWB will be reviewed to test the assumptions derived from the original and operating practices. The revised PWB has not been functioning long enough to review.

Standard of Practice 4.4: Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:



The site can manage any WAD exceedances either by immediately diluting after CIP6 or through an emergency detoxification plant further downstream before the solution reaches flowing water.

A TAC 1000 (proprietary name) WAD analyser measures WAD levels at the tip point after CIP 6, every 2 hours. The results for the day 25/07/2025 showed the lowest level at 16.65 mg/l WAD cyanide and the highest level at 40.58 mg/l WAD cyanide. A graph showing WAD levels from March to July 2025, with no exceedance of the 50 mg/l limit observed, and results averaging between 30 and 36 mg/L WAD cyanide.

The practice is to dilute the slurry flows with water from the raw water pond before they reach the tip point (compliance point). Thus, the slurry emerging at the tip point is below 50mg/l WAD. The Procedure, “WAD Management when it is above 50ppm”, was sighted and reviewed. WAD cyanide levels are less than 50 mg /L WAD cyanide, so additional fencing is not required. However, the entire TSF perimeter is fenced and well-maintained. This was confirmed during the site inspection.

No wildlife mortalities have been recorded on the TSF or in open waters. Wildlife mortalities are monitored by the Environmental Department daily. Maintaining a WAD cyanide concentration of 50 mg/l or less in open water appears to be effective in preventing significant wildlife mortalities. The procedure, “Wildlife Mortality Monitoring”, was sighted and reviewed. The Daily Wildlife Mortality Inspection and Registration Form covering 1st, 2nd, and 3rd Dams was sampled and reviewed. There are no heap leach operations on site.

***Standard of Practice 4.5:** Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.*

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The operation has a direct discharge to surface water, but the WAD cyanide in the discharge is less than 0.5 mg/l. The Free and WAD cyanide levels discharged to the environment for a month from 11 November 2025 until 10 December 2025 were reviewed. Levels were mostly below the limits of detection for Free cyanide (>0.005), and the highest level (an outlier) was 0.06. The maximum permissible level is <0.1ppm free cyanide. The downstream levels (i.e., 1 km downstream) of Free cyanide were mainly below the limits of detection, with the highest value being an outlier at 0.02 ppm. There are no indirect discharges to surface water. Hydrological studies have been undertaken to map subsurface water movement (refer to Section 4.4 of Lega Dembi Tailings Dam Safety Audit & Management, prepared by Addis Ababa Science & Technology, February 2025). More data became available on the hydrological situation. The site subsequently drilled three additional boreholes to track subsurface flows, confirming that there is no indirect discharge and that the measured cyanide levels were

below the limits of detection. There have been no indirect discharges that have required remedial activity.

Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified

The operation has a water management plan and a probabilistic water balance. The site carries out and documents operational inspections and planned maintenance inspections. The scheduling of inspections is documented in an Excel spreadsheet. The operation's "Water Management Plan" was sighted. The Plan is in place to control water inflows, outflows, and storage to prevent contamination, dam failure, and environmental harm. Key components of the water management plan include: - 3.1 the Diversion system, (including diversion of runoff), 3.2 Stormwater Management, 3.3 Water Storage & Decant Systems, and 3.4 Seepage & Contamination Control.

The legal standard is 0.1 mg/l free cyanide, but the site measures levels currently below 0.02mg /l Free cyanide. Measurement is taken every 8 hours. There are no indirect discharges. Hydrological studies have been undertaken to map subsurface water movement (refer to Section 4.4 of Lega Dembi Tailings Dam Safety Audit & Management, prepared by Addis Ababa Science & Technology, February 2025. More data became available on the hydrological situation. The site subsequently drilled three additional boreholes to track subsurface flows, which confirmed that there is no indirect discharge and that the measured cyanide levels were below the limits of detection. The operation does not make use of backfill. The operation is not engaged in any remedial activity to prevent further degradation and restore beneficial use.

Standard of Practice 4.7: Provide spill prevention or containment measures for process tanks and pipelines.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:



All tanks are in bunded areas, which was verified during the site inspection. The procedure, “SOP – Spill Prevention and Containment Measures”, outlines the measures to be followed to minimize the risk of spills and effectively respond to any spills that may occur within the facility.

All bunds are sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event.

Tank ID	Tank volume (m ³)	Bund capacity (m ³)	(%)
Cyanide mixing and holding	19.4	59.9	308.91
Leach tank	1645	3008.5	182.88
CIP Tank and Elution	150	214.53	43

All bunds return any spillage or rainwater back to the process via a sump pump. No procedure is necessary. The sump pump in the cyanide storage bund is set to manual operation. There are no tanks without secondary containment.

The site has a pipe-within-a-pipe system in place on high-strength cyanide lines. TSF slurry lines are located within a trenched containment to contain spills and enable easy collection and removal. This was verified during the site inspection. No areas where cyanide pipelines present a risk to surface water have been identified.

HDPE (High Density Polyethylene) is used for pipes throughout the operation. HDPE is compatible with cyanide and high pH conditions. The document titled "Metallurgy Operation Department General Equipment & Specification," dated 28 October 2024, which contains material specifications for all cyanide equipment, was sighted.

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.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

TSFs are continuous “works in progress” and are continually monitored and checked by competent persons. The Legadembi Tailings Dam Safety Audit and Management document includes Section I – Safety Management Framework on page 66. The purpose

of the Framework is to establish a systematic approach for managing the safety of the TSF. Some of the Components of the Safety Management framework include: - Governance and Policy, Operational Controls, Instrumentation and Monitoring, Risk Management. Emergency Preparedness, Environmental Management, Training and Capacity Building, Stakeholder Engagement, Continuous Improvement, and Post-Closure and Sustainability are included on Page 69, along with ensuring compliance with international standards (ICOLD, GISTM) and national regulatory requirements. Section II: Operation and Maintenance Manual. The manual includes the operation of the TSF under normal, abnormal, and emergency conditions. The manual defines emergency types and scenarios, which develop into Section III – Emergency Preparedness & Response Plan. Section II includes 2.6 -10 Key Operational Procedures: -

- Tailings Dam Structure Inspection
- Tailings Transportation and Deposition
- Water Management (Decanting & Recycling Systems)
- Seepage Control
- Instrumentation and Monitoring
- Cyanide Management
- Infrastructure Maintenance
- Operational Safety Guidelines
- Environmental Protection, and
- Emergency Preparedness

On page 72, Section 2.7 contains 8 Maintenance Procedures: -

- Routine Maintenance
- Preventative Maintenance
- Corrective Maintenance (Immediate actions)
- Monitoring Equipment Calibration
- Emergency Equipment Maintenance
- Documentation and Record Keeping
- Annual Assessments
- Long Term Maintenance Planning

There is a weekly, minuted Management Meeting that addresses TSF issues and generates actions to be taken at the TSF. There is also a minuted, Water Committee for the TSF which meets weekly for urgent matters. It discusses the Probabilistic Water Balance and reviews water performance. There is also a weekly TSF Management meeting that reports to various other structures, including the Metallurgy Department. An SOP, “Cyanide Discharge Concentration to the 1st Tailings Dam and Surface Area” is also in place.

The Lega Dembi Tailings Dam Safety Audit & Management document, prepared by Addis Ababa Science & Technology University, dated September 2025, was sighted and reviewed. The report concludes that “... (the TSF) is generally in good operating condition, exhibiting good structural integrity and the water and cyanide management practices complied with regulatory requirements...In summary, the Lega Dembi TMF(TSF) is functioning within acceptable safety parameters; however, proactive measures are essential to safeguard its integrity and align fully with best practices in tailings management...”



There was no original Quality Assurance/Quality Control (QA/QC) documentation available for the Plant; thus, a fit-for-purpose report has been prepared. The document, entitled “QA/QC Report for MIDROC GOLD MINES (Legadembi)” was prepared by Abraham Assefa (PPME/1143) and Dr Leule Mebratie (PPSTE/175), Gubalafto Consulting Architects & Engineers, September 2025. The Report states that the facility’s equipment and infrastructure—including tanks, pipelines, pumps, valves, and containment systems in general, and concrete and steel structures in particular —were classified as “fit for service” and deemed safe for continued operation under current protocols for up to ten years. The Report further states, “...In conclusion, the cyanide facility is structurally sound, operationally safe, and well-positioned for long-term service. The findings affirm that the facility meets all relevant safety, durability, and performance standards, provided that the recommended maintenance and monitoring practices are consistently implemented... (The report) recommends a structured, risk-based QA/QC program that includes routine inspections, preventive maintenance, and periodic integrity assessments every three to five years. These measures are essential to ensure ongoing compliance, mitigate risks, and preserve the facility's operational reliability...”

Standard of Practice 4.9: *Implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and ground water quality.*

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The following monitoring procedures were sighted and reviewed: -

- Procedure “Surface Water Sampling for Free and WAD Cyanide Determinations”,
- “Groundwater Sampling for Free and WAD Cyanide Determinations”, and
- “Wildlife Mortality Monitoring Procedure”. Wildlife mortalities are monitored daily by the Environmental Department (as noted in the Daily Wildlife Mortality Inspection and Registration Form covering the 1st, 2nd, and 3rd Dams) and by the TSF staff.
- “SOP – Sampling and Analytical Protocol”

Ground and surface water are monitored daily.

The groundwater and surface water monitoring procedures were developed and updated by: -

- Abdrheman Redi – B.Sc. Chemistry, Addis Ababa University (+15 years’ experience in environmental sample analysis)
- Biniam Mersha – M.Sc. Environmental Engineering and B.Sc. Chemistry, Bahir Dar University (+20 years’ experience in Quality Control and Environment)



- Abiy Tsetargachew - M.Sc. Environmental Science, Addis Ababa University (+20 years in Environmental Protection)
- Dr. Temesgen Eliku, PhD, Environmental Science, Addis Ababa University (consultant)

The SOP “Sampling and Analytical Protocol” includes: -

- Section 6.9.1 Sampling locations – Table 1 – Pre-determined Sampling Locations
- Section 6.8 Quality Control and Assurance Protocol QA/QC Measures (Chain of Custody)
- Section 6.9 Chain of Custody, Sub-sections 6.9.1 and 6.9.2 (Shipping Instructions)
- Section 6.7 Transport and Storage
- Section 6.8 Quality Control and Assurance Protocol QA/QC Measures (QA/QC)

Field Sampling sheets now include weather, livestock and wildlife activity, and anthropogenic influences. A completed sheet dated 9 July 2025 was sampled, and its inclusions were confirmed.

Wildlife mortalities are monitored daily by the Environmental Department (as noted in the Daily Wildlife Mortality Inspection and Registration Form covering the 1st, 2nd, and 3rd Dams) and by the TSF staff. Ground and surface water are monitored daily. WAD cyanide is monitored continuously online. The auditor deems the frequencies adequate to characterise the medium being monitored and to identify changes in a timely manner.

Principle 5. DECOMMISSIONING: Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife, livestock, and the environment.

X in full compliance with

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

not in compliance with

Basis for this Finding/Deficiencies Identified:

A Decommissioning Plan for the Cyanide Facilities at Lega Dembi Gold Mine has been developed by the University of Addis Ababa for the mine. The document is a third-party, detailed cyanide decommissioning plan based upon ICMC decommissioning requirements. Appendix E, Decommissioning Timeline, contains Table E1 – Lega Dembi Gold Mine Cyanide Facilities Decommissioning Schedule (page 45) in a Gantt Chart Project Schedule format.

The SOP for Cyanide Facility Decommissioning Procedure outlines the safe and compliant process for decommissioning a cyanide facility, including neutralization,



dismantling, waste disposal, and environmental remediation, in accordance with regulatory requirements and the International Cyanide Management Code. The documents are the initial versions for the certification audit. Regarding the revised document control procedure covering these documents, they will be reviewed every three years in the future.

Standard of Practice 5.2: Establish a financial assurance mechanism capable of fully funding cyanide-related decommissioning activities.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The operation has developed an estimate of the cost to fully fund the third-party implementation of the cyanide-related decommissioning measures identified in its site cyanide decommissioning and closure plan, as outlined on page 60 of the ICMC Auditor Guidance document. The cost is determined as 98,009,859.20 ETB (≡ to US\$653,399.061) – Page 30, Table 3. The document is the first version for the certification audit. In accordance with the revised document control procedure, it will be reviewed every three years in the future.

A Mining Agreement for the renewal of the Legadembi Large Scale Mining Licence between The Ministry of Mines, Petroleum and Natural Gas of the Federal Democratic Republic of Ethiopia and MIDROC Gold Mine PLC to mine gold and associated minerals in Oromiya Regional State, Guji Zone, Oddo Shakiso Woreda, Legadembi Locality, was signed on 29 March 2018. In this agreement, under Sub-Article 17.3, it states, "...The licensee (MidRoc Gold Mine PLC) shall secure in a blocked account designated for that purpose with a State-owned bank account in Ethiopia at the start of every year of production a sum equal to the amount shown in the approved Mine Closure Plan for that year. The funds mentioned in such blocked account shall be released to the licensee phase by phase by the Licensing Authority proportionate to the implementation of the mine closure activity as approved in the Mine Closure Plan and Environmental and Social Management Plan within the Environmental and Social Impact Assessment Study..." Thus, it is concluded that the above agreement constitutes a Regulator-approved, financial mechanism to cover the estimated costs for cyanide-related decommissioning activities as identified in its cyanide decommissioning and closure strategy.

The blocked Account is with the Dashenbank sc., Under the Corporate Banking Department. The account, for the purposes of a Sinking Fund, as of 18 August 2025, contained an amount of birr 92,442,566.70 (US\$652,089.87).

Principle 6. WORKER SAFETY: Protect workers' health and safety from exposure to cyanide.



Standard of Practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce or control them.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The operation has 26 operational cyanide procedures, 17 Engineering cyanide procedures, and 37 Safety, Health & Environment cyanide-related procedures.

The following procedures were sampled to check how cyanide-related tasks should be conducted to minimise worker exposure: -

1. SOP: Cyanide Equipment Decontamination prior to Maintenance, MGM/CN/OP/053, Rev.01, dated 28 October 2024: - disposal and post-decontamination included pre-decontamination procedure, chemical detoxification, and waste disposal.
2. “SOP Buddy System working in Cyanide Facility”, MGM/CN/OP/052. Rev.01, dated 28 October 2024, including buddy pairing, PPE requirements, pre-task checks, emergency situations, training requirements, and communication.
3. “SOP – Cyanide Mixing”, MGM/CN/OP/008, ref 02, dated 28 October 2024. Contains a detailed task list for the preparation of a sodium cyanide solution (“Mixing procedure”), PPE requirements, and use of the Buddy procedure. The procedure also includes action notes on failures resulting in the spill of dry sodium cyanide.
4. “SOP – PPE for Cyanide Facility Operation”, MGM/CN/OP/075, Rev 01, dated 28 October 2024. Procedure includes a hierarchy of controls, and General PPE Requirements (Level D), Cyanide Response/Decontamination PPE (Level C), Cyanide Handling PPE (Level B), Level A (missing)
5. “SOP -Cyanide Pipe & Valves Inspection”, MGM/CN/OP/032, Rev 02, 28 October 2024. The procedure specifies the use of a buddy, includes corrective actions in the event of a cyanide leak, and the use of cyanide PPE.
6. “SOP – Inspection of Secondary Containments for Tanks, Ponds and Impoundments”, MGM/CN/OP/022, Rev 02, dated 28 October 2024. The purpose is to establish a consistent and thorough inspection process that identifies potential risks, ensures containment reliability, and supports corrective actions. It includes inspection procedures and minimum inspection requirements, and the inspection process.
7. “SOP-Entering and Working in Confined Spaces”, MGM/OP/054”, Rev 01, dated 28 October 2024. The purpose of the SOP is to establish safe procedures for entering and working in confined spaces where cyanide-containing materials may be present.



All procedures were found to describe how cyanide-related tasks should be conducted to minimize worker exposure. All procedures require, where necessary, the use of personal protective equipment and address pre-work inspections. The procedure, “PPE for Cyanide Facility Operation”, establishes the requirements for selection, use, inspection, maintenance, and storage of personal protective equipment (PPE).

A procedure. “Workers’ Input for Cyanide Handling Safety” is in place. The purpose of this procedure is to establish a systematic and effective framework for consulting with and involving workers in all aspects of health and safety related to cyanide handling. Inputs can come from: - worker participation in risk assessments, Toolbox talks/pre-start meetings, suggestion submission process, SOP Reviews, Incident and Near-Miss investigations, root cause investigations, and lessons learned from investigations shared with the workforce.

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.

X in full compliance with

The operation is

- in substantial compliance with **Standard of Practice 6.2**
- not in compliance with

Basis for this Finding/Deficiencies Identified:

The process operates at a pH level of between 10.5 – 11, measured at leach tanks 1-6, and CIP tank 1. It is also measured using a manual titration method every two hours and via the TAC 1000 cyanide optimiser every 15 minutes. PH levels are corrected by the automated addition of lime.

The “SOP- pH Optimisation during Normal Operation, Abnormal and Emergency Case”, includes Normal Operation (above pH 10.5-11 in leach tanks), and Abnormal Condition (pH drops slightly outside normal range but process still operational (9.8-10.5 and >11.5. The Emergency Condition is where the pH falls to dangerous levels below the 9.8 pH value in leach tanks and CIP tanks), posing environmental or safety risks.

Annual HCN gas surveys show that there are no areas where HCN gas levels exceed 1ppm. Daily and shifty tests confirm this. The operation has 25 portable HCN gas monitors and 15 fixed HCN gas monitors. The fixed gas monitors are located at: - the warehouse (2), the mixing and holding tanks (3), the leach tanks (4), the CIP (4), the Elution (1), and the Detox plant (1). HCN Gas control is managed by maintaining an effective pH between 10.5 and 11.

The Australian company, Monitors Refractory, manufactures both fixed and portable monitors used by the operation. The manufacturer recommends annual calibration. A File with current calibration certificates was sighted and reviewed. (As this is a first certification audit, only current calibration certificates were reviewed.) A Calibration Plan for Fixed Hydrogen Cyanide Gas Monitors was sighted and reviewed. The monitors



are calibrated at 4.7ppm continuously over an 8-hour period and 10 ppm on an instantaneous basis.

Signs were observed, during the plant site inspection, to be placed in numerous and strategic locations, in local languages, Afan Oromo, and Amharic, and in English, advising workers that cyanide is present, of any necessary personal protective equipment that must be worn, and that smoking, open flames, and eating and drinking are not allowed. Numerous signs warning of poisonous water and no swimming were posted around the TSF fence in local languages, including Afan Oromo and Amharic, as well as in English.

Sodium Cyanide producer, AGR, adds red carmoisine dye in the production process. The AGR SDS (Safety Data Sheet), including the indication of the inclusion of dye or colouring, was sighted. The Sodium Cyanide producer, Orica, has an SDS, which states that the briquettes may include a coloring or dye.

Safety showers are inspected by Operations on a shiftly basis and weekly by the Safety Department. Any maintenance would be driven by a job card from the inspector. There is a detailed safety shower checklist. The new safety showers and eye wash units located in Mixing, Leach, and the Cyanide Warehouse, CIP, Elution, and the Emergency Detox Plant were sighted. These showers are inspected daily by Operations and weekly by Engineering.

Dry powder extinguisher locations were sighted and noted to be installed throughout the site. They appear to be in good condition and well-maintained. A fire service specialist contractor is used to inspect, test, and repair extinguishers.

Cyanide mixing and storage tanks are painted red with a purple band and have labelling signage, including UN (United Nations) identification numbers. High-strength cyanide pipelines are color-coded purple and have flow directions marked on them. A pipe colour coding system is in effect on the plant, and numerous colour coding explanation boards were sighted throughout the plant during the site inspection.

Sighted SDSs in English displayed in the plant. English is the official operating language on site. AGR SDSs are available in Ethiopian local languages – Amharic and Afan Oromo, as are Orica SDSs.

The operation has not had any cyanide incidents in the recordable past. It has a Safety Reporting and Investigation procedure that would be used in the case of a cyanide exposure. The Procedure, “Investigation of Dangerous Incidents and Accidents”, was sighted and reviewed.

As no cyanide incidents had been experienced, a completed lost time injury investigation was reviewed: -

Incident: A Dump truck fell due to brake failure on 23 January 2025 at an open pit site. The truck was descending to the pit on a steep slope and lost control. It veered off the road and fell on the roadside edge. The driver sustained mild contusion on the left leg, and the truck received minor damage.

Cause

Malfunction of the braking system

Root Cause

Operator’s limited familiarity with the specific truck model

Lack of pre-use inspections and checks of the dump truck

Contributing factors

Inadequate training
Lack of enforcement of pre-use inspections

Corrective Action

Targeted training for operators on emergency handling and brake failure scenarios.

***Standard of Practice 6.3:** Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.*

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 6.3**

 not in compliance with

Basis for this Finding/Deficiencies Identified:

The operation has intercom/radio communications to raise a cyanide alarm. There is now an audible alarm system in place. The plant has on-site medical oxygen, resuscitators, and antidote kits, located in emergency cyanide cabinets on site to give immediate cyanide first aid to cyanide victims. The Plant uses Cyanokits as cyanide antidotes, which are stored in accordance with the manufacturer's recommendations: out of direct sunlight, below 25°C, and are not used after their expiry date. The current batch of antidotes in use on site expires on 11-10-2026.

The operation also has a cyanide-specific clinic located in the processing plant. A full-cycle medical protocol for cyanide poisoning treatment from plant to clinic is included in the Cyanide Emergency Response Plan. There is cyanide PPE at the clinic. The on-site clinic was inspected and confirmed to have a bulk medical oxygen supply and emergency cyanide PPE. The clinic is staffed by a cyanide-trained nurse. The clinic at the processing plant has an ambulance to transport patients to the hospital. The ambulance contains medical oxygen and cyanide PPE. Section 17.2 Emergency Transfer of Cyanide casualty from Mine site to offsite Hospital, is included in the Emergency Response Plan (ERP).

MIDROC has opened a captive hospital located 8 km from the mine. It is fully equipped and trained to cater to cyanide patients with a dedicated isolation room in a ward. Thus, there is currently no need to make use of external medical facilities. (The hospital also caters to the Community on a subsidised basis.) There is also a Government General Hospital available for backup, 18 kms from the site. There is no cyanide medivac protocol, although an aircraft or helicopter could be used to transport patients to a hospital.

Principle 7. EMERGENCY RESPONSE Protect communities and the environment through the development of emergency response strategies and capabilities.

***Standard of Practice 7.1:** Prepare detailed emergency response plans for potential cyanide releases.*



X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Response Plan (ERP), MGM/CN/OP/071, effective Date-28-10-2024, Rev.1, which would be used for cyanide releases and exposures, was sighted.

The ERP includes consideration of potential cyanide failure scenarios such as:- Catastrophic release of hydrogen cyanide from storage, process or regeneration facilities, Transportation accidents occurring on site or in close proximity to the operation, Cyanide releases during unloading and mixing, Cyanide releases during fires and explosions, Pipe, valve and tank ruptures, overtopping of ponds and impoundments, Power outages and pump failures, and Failure of cyanide treatment, destruction or recovery systems.

MIDROC's own transportation is used to transport the cyanide. The transport certification audit has been completed, and full compliance has been published on the ICMI website. The Transport Management Plan contains all the responses and conditions relating to transportation emergencies. The ERP includes Basic Evacuation Plans for the Plant, and employees have been made aware of possible evacuation situations. Evacuation of potentially affected communities has not been deemed a feasible option. However, there is a Standard Operating Procedure to support this line of thinking.

The use of cyanide antidotes and first aid measures for cyanide exposure is included in detail in the ERP. The Plan includes control of releases at their source, as well as containment, assessment, mitigation, and future prevention of releases.

Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The operation involved its workforce and external stakeholders, including potentially affected communities, in the cyanide emergency response process using Focus Group discussions, door-to-door discussions, minutes of meetings, and Safety and Health Committee meetings.

The operation has identified stakeholders such as Guji Zone Environmental Protection Authority, Guji Zone Police Commission, Odo Shakiso Woreda Police Commission, Adola General Hospital, Reji Kebele Administrators, Diba Bate Kebele Administrators,



various Community Leaders, and Shakiso Town Environmental Protection Authority (EPA)

Minutes of a meeting on the Emergency Response Plan with Stakeholders on June 10, 2025, at the mine site were sighted. There were 11 Stakeholders representing various stakeholder groups present. The stakeholders agreed to respond to requests if the Emergency Response Plan is activated. Further actions planned include additional cyanide training and involvement in mock drills.

***Standard of Practice 7.3:** Designate appropriate personnel and commit necessary equipment and resources for emergency response.*

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

In Section 13 of the ERP, Responsibility of Emergency Response Team, the General Manager, is: -

- o Responsible for coordinating the cyanide-related emergency
- o Verifies availability and adequacy of all critical resources for emergency response
- o To cease all activities in the mine site and to make the decision to evacuate from the incident area until the incident management has been completed.
- o To inform the emergency situation to external responders promptly
- o Coordinating post-emergency rehabilitation efforts
- o Defining short and long-term normalisation goals after an emergency and implement the action plan accordingly

Also in the ERP: -

Section 12. Emergency Management Team and Contact Information,
Table 4: List of Emergency Response Team (ERT)

The requirement for emergency responder training is included in the Plan under Section 13.1. Procedure “SOP-Decontamination of PPE and Equipment” provides a standardised procedure for the safe and effective decontamination of PPE and tools or equipment that have been exposed to cyanide during an emergency response.

Table 4: List of Emergency Response Team (ERT) on page 13 contains names, contact information, work, and mobile phone numbers. The Callout flow diagram was reviewed. The observer will call the general emergency number, 8605, and the operator will refer the call to the General Manager or his delegate. The General Manager will initiate responses and ensure the appropriate persons and authorities are contacted. 8605 is a general emergency number that is manned 24 hours a day, 7 days a week. There is also an SOP for Emergency Call-out Procedure for Cyanide Incidents.

The duties and responsibilities of the coordinators and team members are described in the ERP, Section 13. Responsibility of Emergency Response Team, Table 6: Responsibility of ERT. This includes managers and departmental heads. Section 17, Operating



Procedures: Cyanide Emergency Response Procedures, page 32, includes the responsibilities of the ERT ordinary members and their back-ups. Section 15, Emergency Equipment and Drills, and Table 9: Emergency Response Equipment in MGM covers the equipment inventory. Section 14.2, Duties and Responsibilities of External Entities during an Emergency, is covered in Table 8: Duties and Responsibilities of External Entities during an Emergency. The Woreda and Kebele Administrators are responsible for notifying affected communities and evacuating them from risk areas. The operation has made contact with Woreda and Kebele Administrators to discuss how to communicate with communities and facilitate evacuations when necessary. The operation has established contact with external entities (**fire brigade, external ambulances, civil defence (for evacuation), police, local authorities, community leaders, etc.**) with roles and responsibilities identified in the Emergency Response Plan and ensured that they are aware of their involvement and are included as necessary in mock drills or implementation exercises. Introductory letters establishing contact and explaining details of cyanide emergency response were sighted along with minutes of stakeholder meetings.

***Standard of Practice 7.4:** Develop procedures for internal and external emergency notification and reporting.*

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.4**

 not in compliance with

Basis for this Finding/Deficiencies Identified:

Notification of management, regulatory agencies, external response providers, and medical facilities of the cyanide emergency is included in the ERP, Section 14.1, Contact Information of Organizations to be Taken External Support, Table 7: List of External Responders, and Section 16. Way of Communication during Emergency Situation, Flow Chart: Communication flow during cyanide emergency.

Notification of potentially affected communities of the cyanide-related incident and any necessary response measures is included in the ERP, Section 14.1, Contact Information of Organizations to be Taken External Support, Table 7: List of External Responders, and Section 16. Way of Communication during Emergency Situation, Flow Chart: Communication flow during cyanide emergency.

The procedure for notifying ICMI of any significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document, is "SOP – Notifying ICMI of Significant Cyanide Incidents" which was sighted and reviewed. There have been no reportable cyanide incidents that have occurred in the recent past.

***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.*



X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Specific remediation measures, as appropriate for the likely cyanide release scenarios, are included in the following procedures and the ERP: -

- Procedure: “Sodium Cyanide Clean-up and Decontamination.” The philosophy employed is neutralization and disposal of soils and cyanide spill material. The procedure includes a description of a neutralisation process.
- Procedure - “Spill Prevention and Containment Measure”.
- In the ERP, Treatment of solid (Section 6.1) and solution spills (Section 6.2) are dealt with in Section 6, Operating procedure from pages 59-60. Also included in Section 6.1 is that Contaminated soil is decontaminated with calcium hypochlorite, then removed and disposed of in the TSF.

Section 19. Remediation Measures of Cyanide Release, Subsection 6.2, Prohibited Treatment Chemicals for Cyanide Releases to Surface Water, “...Never use calcium hypochlorite, ferrous sulfate, or hydrogen peroxide to treat cyanide that has been released into natural surface water bodies, as these chemicals can produce toxic byproducts and harm aquatic ecosystems...”

No communities extract potable water from the mine property. Potable water is provided from separate, disassociated sources.

With regard to addressing the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and including sampling methodologies, parameters, and, where practical, sampling locations, the ERP includes section 19, Remediation Measures of Cyanide Release. The Cyanide Spill clean-up procedure includes some specific requirements for the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and include sampling methodologies, parameters, and, where practical, sampling. Sighted Procedure – Environmental monitoring for accidental releases of cyanide, the purpose of which is to define the plume, assess the impact, guide the response, and establish a baseline. Pre-sampling activity will identify, where practical, where the sampling locations will be.

Standard of Practice 7.6: *Periodically evaluate response procedures and capabilities and revise them as needed.*

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:



On page 59 of the ERP, it states, "...The Emergency Response Plan will be reviewed and updated every year, as well as after any practice drill or actual cyanide emergency..." The Plan was reviewed in 2024, and changes were made.

Section 20 of the ERP is the Cyanide Emergency Mock Drill Procedure. The following mock drill reports were sighted and reviewed: -

1. HCN Gas Release-20/05/2025

An unnoticed pH drop in proximity to leach tank 1 is occurring due to insufficient lime addition. Low pH results in HCN gas formation. Gas detectors alarmed. One operator simulated semi-consciousness.

Strengths

Effective upwind activation, rapid alarm activation, excellent oxygen therapy and first aid, proper barricading and decontamination of the area, and employees evacuated properly to assembly areas.

Areas for Improvement

A delay of the victim's operator colleague donning PPE, it took a long time to get the victim to the ambulance, and difficult radio communication.

2. Sodium Cyanide Spill Emergency-10/06/2025

During the lifting of a cyanide box using a crane in the mixing area, it was carrying a damaged box, which spilled briquettes from about two metres high. The alarm was sounded, and the ERT was called to deal with the spill.

Strengths

The alarm was activated quickly, the ERT response time was within acceptable standards (3-7 minutes), PPE was properly used, and Communication was effective.

Weaknesses

There was a delay in cordoning off the area, and workers hesitated before evacuating.

Principle 8. TRAINING: Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 8.1**
 not in compliance with

Basis for this Finding/Deficiencies Identified:

The Plant trains its employees in cyanide hazard recognition. The training course includes: - the basics of cyanide, its physical and chemical properties, risks and exposure,



health and environmental hazards, employee safety, first aid and emergency preparedness and response, accidental release procedures, firefighting measures, and communication. The “SOP-Safe Plant Operations in Gold Processing” outlines the safe work practices and procedures for all personnel involved in plant operations where cyanide is used for gold extraction. The SOP aims to prevent cyanide exposure, minimise risks, and ensure the health and safety of all workers.

Refresher training is delivered 6 monthly. The Training Matrix includes records of all persons undergoing the training. It can be used to check that everyone is up to date on cyanide awareness training. All training is documented. The records are kept for 10 years after the employee leaves. The records include the name of the employee, date of training, title of training, and assessment scores. A training recording sheet was sighted, showing the title of the training, the name of the trainer, the approver, the method of assessment, Competency scores, and the resulting pass or fail.

***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.*

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 8.2**
 not in compliance with

Basis for this Finding/Deficiencies Identified:

Task training is based on Standard Operating Procedures (SOPs). All employees are trained when they are appointed. Materials such as the process description and operating specifications are also used. Once established, employees are given KPIs (Key Performance Indicators) to meet regarding the safe performance of their tasks.

The operation has a trainer who trains operational staff. Training elements and SOPs are included in the training material. Training modules are used to train on specific areas, and they are job-specific. Modules were sampled and reviewed: -

1. Basic Cyanide Storage and Unloading Procedure Training. This includes: - Introduction to cyanide,- Cyanide warehouse,- Safety and precautions,- Cyanide loading and unloading inspection procedures, cyanide receiving procedures, cyanide storage and preservation, cyanide issuing, emergency preparedness, and first aid. The module is followed by a written test or quiz.

2. Mechanical Maintenance on Cyanide Facility. Module includes: - Cyanide, Why is it called cyanide, who discovered cyanide, Key properties and uses, why is cyanide dangerous, safety, Repair procedure, Emergency Response Plan, and assessment.

Certified “Train the Trainer” courses are given to Process Engineers, Supervisors, Environmental Engineers, Safety & Health Professionals, Chemists, Mechanical and Electrical Engineers, Metallurgists, Medical doctors, and First Responders. Nine certificates for completion of the “Train the Trainer” course from 11-12 April 2025, presented by Peak Training and Consultancy Service, were sighted. Also sighted were 31

Certificates of Completion for the Orica Cyanide Safe Use and Handling Awareness course on 11/06/2025, presented by Albert Avoke, Orica Account Lead. A Cyanide Emergency Response course presented by BMTK Environmental Consultants in May 2025 to 10 employees. Additional training courses are also provided by consultants.

New employees undertake safety induction training and then are trained specifically in their tasks before being allowed to work with cyanide, unsupervised. The employee then goes through a 60-day probationary period, after which he is signed off by the supervisor and Department head as competent. Only then can he be made a permanent employee and work with cyanide unsupervised.

Employee Training Agreements for Cyanide-related Activities were sighted for: a Process Operator, a Trainee Mechanical Engineer, a Trainee Electrical Engineer, and an Electrical Power and Control Engineer. They all contained sections on: -

- Cyanide Awareness - Properties, hazards, and potential health and environmental impacts.
- Safe Handling Procedures: Receipt, storage, transport, use, and disposal of cyanide.
- Emergency Response - Spill response, exposure response, evacuation, and reporting.
- Personal Protective Equipment (PPE) - Proper selection, use, and maintenance.
- First Aid and Medical Response - Immediate actions in case of cyanide exposure, and
- Environmental Protection Prevention of cyanide releases and compliance with site controls – These are all contain the requirement for written assessments, task observation, and sign-off by a supervisor. Working with cyanide unsupervised is only permitted once the training is complete and the person is declared competent.

Once trained, employees are monitored and observed. If they deviate from safe practices, they may initially be counselled and eventually given refresher training if the poor practices continue. Refresher training is provided for employees who are transferred from other departments.

Sighted completed: -

1. Refreshment Attendance Training Record Form conducted on 28 May 2025 for TW Gebriel and Hassan Mohammed on the Proper and Effective Way of wearing PPE.
2. Refreshment Attendance Training Record Form conducted on Permit to Work, Restricted Access, and Detailed procedure during Mixing Process on 20 July 2025 for Asheber Ayalwe.

Formal Job observations are undertaken, at least one per shift per supervisor.

Sighted

1. PTO (Planned Task Observation) on Cyanide Mixing, carried out on Asheber Begole and Shigute Chala by observer Debela Duguma on 22-11-2025 EC. Demonstrated competence
2. PTO on forklift offloading of cyanide carried out on Esrael Genen by observer Debela Duguma on 22-11-2025. Demonstrated competence.

All training is documented. The records are kept for 10 years after the employee leaves. The records include the name of the employee, date of training, title of training, and assessment scores. A Training recording sheet was sighted showing the title of training,

name of trainer, approved by, the method of assessment, competency score, and resulting pass/fail.

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

All personnel involved in cyanide unloading, mixing, production, and maintenance are trained in the procedures to be followed if cyanide is released, including decontamination and first aid procedures. The training matrix, which shows training records, demonstrated the training.

There is a plant emergency response team. Their extra training includes: - First Aid & emergency response, administering medical oxygen, firefighting, spillage management, communication, advanced first aid training by an external body, PPE during emergencies, SavOx (proprietary name) SCBA (Self-Contained Breathing Apparatus) training, rope rescue, and refreshers. Additional drills have been held, and team exercises are conducted. Training in the emergency communication protocol is also included.

External training is provided by a MIDROC medical doctor on Basic First Aid Treatment for Cyanide Toxicity, covering CPR, clearing airways, devices, techniques, cardiac arrest, cyanide poisoning, exposure response, first aid procedures, and monitoring and support. This training was presented on 6/03/2025 and attended by 16 people. Evidence is available in video footage of emergency scenarios.

The new captive MIDROC Gold Mine hospital (8 km from the mine site and opposite the entrance to the mine village) is operating, available, equipped, and staffed to cope with cyanide patients. The hospital was inspected during the site visit.

The local external responders are not directly involved with the cyanide emergency response plan. The largest local Government General Hospital is 18 kms away. However, there is a communication mechanism to liaise with them, if necessary.

Ongoing training for the emergency response team is being carried out. Records for 2-day training of Departmental Heads on the Emergency Response Plan – May 3 - 4, 2015 EC was sighted. The Emergency Response Team Training Plan, including the training topics and planned dates, was also sighted.

All training is documented. The records are kept for 10 years after the employee leaves. The records include the name of the employee, date of training, title of training, and assessment scores. A Training recording sheet was sighted showing the title of training, name of trainer, approved by, the method of assessment, Competency score, and resulting pass/fail.



Principle 9. DIALOGUE AND DISCLOSURE: Engage in public consultation and disclosure.

Standard of Practice 9.1: Provide stakeholders the opportunity to communicate issues of concern.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

A sociologist addressed concerns and went from door to door, face to face, inquiring for feedback. Sighted reports: -

1. “Door-To-Door Community Outreach and Education Report by Reji & Dibabate Kebeles.
2. Stakeholder Engagement and Communication on Cyanide Management Practices, September 2, 2024.
3. Report on Corrective Actions Regarding Social Findings, June 10, 2025.

The study concluded that there was “a solid foundation of transparency, community involvement, and adherence to safety standards. The company’s efforts in maintaining regular dialogue, sharing environmental data, and involving local stakeholders have fostered trust and contributed to a positive social licence to operate...” The report added, “... However, to enhance effectiveness and inclusiveness, there is a clear need for simplifying communication materials, adopting proactive and continuous engagement strategies, and strengthening community capacity for monitoring and participation...”

The site has developed a list of stakeholders. Meetings with stakeholders are scheduled in the Social Management Plan. The site has also hired four indigenous people as Environmental and Social Safeguard Officers, who visit various stakeholders.

The site has an MOU (Memorandum of Understanding) with a local radio station to raise awareness about cyanide. Environmental and cyanide-specific information, communicating information on cyanide releases, and information on the Environment Day celebrations. The site gathers information from the interactions.

A call centre is in place, manned by plant specialists to respond to stakeholder queries regarding cyanide. An Environmental Day Seminar is held annually to communicate health and safety issues related to cyanide. The site has also used national and regional TV programs and bought airtime to communicate cyanide issues.

The site has hired a social journalist to analyse the responses to radio station inputs and calls to the call centre, assessing the effectiveness of communication and the need for methodological corrections.

The Legadembi Tailings Dam Safety Audit and Management document includes, on page 66, Section I – Safety Management Framework, which includes, sub-section 1.3 Objectives of Safety Management Framework, a section on Stakeholder Engagement



(Facilitate transparent communication with regulatory authorities, local communities, and environmental organisations.)

Standard of Practice 9.2: *Make appropriate operational and environmental information regarding cyanide available to stakeholders.*

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

Written descriptions have been produced for distribution. A series of information pamphlets in Afan Oromo (local language) was sighted. The operation is employing 4 local environmental officers (indigenous persons) to distribute these pamphlets and engage in dialogue with local communities and stakeholders in their native languages.

Early feedback includes: -

- a lack of awareness of how cyanide is managed
- the worst-case scenarios – people don't know what to do.

A Report on the MIDROC Gold Mine Environment Day 2025, June 5, 2025, was sighted. Part of the celebration's function was to create awareness about cyanide management, increase understanding of safety protocols, improve stakeholder trust, and strengthen the safety culture within the community and workforce.

Information is disseminated verbally in local languages such as Afan Oromo and Amharic. Presentations given by operational staff are also given in other local languages. The cyanide SDSs (Safety Data Sheets) are translated into local languages, and issues and concerns are often raised due to the material in the translated SDSs.

MIDROC is ready to release this information, even though no incidents have yet occurred. There is a MIDROC Communication Policy and Procedure on the release of information on cyanide exposures or incidents. Sighted Cyanide Incident Communication Policy. The purpose of the policy is to establish clear guidelines for effective communication during a cyanide incident at MIDROC Gold Mine. It aims to ensure that all information shared with stakeholders, ranging from employees and local communities to regulatory agencies and the general public, is transparent, accurate, and timely.

