



# Damang Gold Mine International Cyanide Management Code Certification Audit

## Summary Audit Report

### Goldfields Ghana Limited

Prepared by:

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## Basis of Report

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Acronym / abbreviation	Description
CIL	Carbon-in-Leach
CN	Cyanide
Damang	Damang Gold Mine
DMCCC	Damang Mine Community Consultative Committee
ERT	Emergency Response Team
HCN	Hydrogen Cyanide
HDPE	High Density Polyethylene
Hebei	Hebei Chengxin Co. Ltd
HOD	Head of Department
HR	Human Resources
HSE	Health, Safety and Environment
ICMC	International Cyanide Management Code
ICMI	International Cyanide Management Institute
IFC	International Finance Corporation
ILR	Intensive Leach Reactor
LOM	Life of Mine
OEM	Original Equipment Manufacturer
PMS	Planned Maintenance System
PPE	Personal Protective Equipment
ppm	Parts Per Million
PTO	Planned Task Observation
ROM	Run-of-Mine
SAG	Semi-Autogenous Grinding
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheets
SLR	SLR Consulting (Ghana) (Pty) Ltd
SOP	Standard Operating Procedure
The Code	The International Cyanide Management Code for the Manufacture, Transport, And Use of Cyanide in the Production of Gold and Silver
The Plant	Damang Gold Plant
The Protocol	The Mining Operations Verification Protocol
TSF	Tailings Storage Facility
UNEP	United Nations Environmental Program
WAD	Weak Acid Dissociable



## 1.0 Summary Audit Report for Gold Mining Operations

<b>Name of Cyanide User Facility:</b>	Damang Gold Plant
<b>Name of Cyanide User Facility Owner:</b>	Goldfields Ghana Limited
<b>Name of Cyanide User Facility Operator:</b>	Goldfields Ghana Limited
<b>Name of Responsible Manager:</b>	Ebenezer Borden, Ag. Metallurgical Manager
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## 2.0 Location and description of operation

### Location detail and description of operation:

Goldfields Ghana Limited's Damang Mine is located near the village of New Damang, some 30 kilometres northeast of Tarkwa, in the western region of Ghana. Damang Mine operates a carbon-in-leach (CIL) processing plant which is fed run-of-mine (ROM) ore at approximately 12,600 tonnes per day (4.2 million tonnes per annum). Plant feed until January 2023 consisted of 95% fresh (blasted) hard rock and 5% weathered (oxide) materials. Following on from January 2023 no fresh rock was blasted from the pit and since that time only rock from the mine's stockpiles has been used.

ROM ore is crushed using a gyratory crusher followed by a secondary and tertiary crushing stages and subsequently stockpiled. Ore is then fed to a milling circuit consisting of Semi Autogenous Grinding and Ball Mill in close circuit with two pebble crushers. The milled ore is classified by means of cycloning with the overflow reporting to a pre-leach thickener for thickening to approximately 50% solid density. The thickened leach feed now reports to the eight CIL tanks of 3000 cubic metres each. The final leach tails report to two tails tanks and pumped to the tailings dam. The cyclone underflow returns to the Ball mill for regrinding.

The underflow stream is also bled to feed 2 x 48" Knelson concentrators. The concentrate from the Knelsons is leached directly in an in-line leach reactor at high cyanide concentration. The leach tails from the intensive leach reactor (ILR) reports to the Ball Mill for regrinding. The pre leach thickener overflow joins the process water pond as recycled water. Loaded carbon from the CIL is acid washed and eluted at high pressure and

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temperature. Gold is finally recovered by electrowinning of the pregnant solution and smelting of the cathodes with flux.

The cyanide facilities at Damang Gold Mine are as follows:

- solid cyanide storage area;
- mixing and storage tanks;
- leaching facilities, including CIL tanks and an in-line leach reactor;
- tailings storage tanks; and
- tailings storage facility and tailings delivery pipeline.

Cyanide has been purchased directly from Samsung C and T Deutschland GnbH (Samsung) by Damang until April 2023 at which time the contract lapsed and cyanide has subsequently been purchased from Hebei Chengxin Co., Ltd (Hebei) on an ad hoc basis until another long term contract can be put in place. The cyanide is delivered as solid cyanide in one tonne boxes which are stored in the cyanide storage area before being taken to the mixing area where they are dissolved to create the cyanide process solution for the Plant. The red dye is also added at this time. The packaging for the solid cyanide is taken by the cyanide transporter to one of two licenced incinerators in Tema, Accra.

Cyanide addition is controlled by using the on-line Mintek Cynoprobe free cyanide readings, regulating the cyanide dosing feed pump speed to achieve the free cyanide setpoint in CIL Tank 1. This is controlled through the Supervisory Control and Data Acquisition (SCADA) system in the Control Room. There is an on-line weak acid dissociable (WAD) cyanide analyser in the CIL Tank 8, to ensure concentration of WAD cyanide is below 50 mg/l before it is discharged to the Tailings Storage Facility (TSF).

Water is decanted directly from the TSF to the process water tank in the Plant, there are no return water ponds. The level of WAD cyanide in the return water is below 0.5 mg/l and is therefore not classed as a cyanide facility.

There are no new facilities or facilities that have undergone substantial changes since the previous recertification audit.

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## SUMMARY AUDIT REPORT

### Auditors Findings

**Damang Gold Plant is:** ☒ in full compliance with **The International Cyanide Management Code**  
☐ in substantial compliance with  
☐ not in compliance with

**Audit Company:** SLR Consulting (Ghana) Ltd  
**Audit Team Leader:** Ed Perry, Lead Auditor  
**Email:** eperry@slrconsulting.com  
**Mine Technical Auditor:** Dawie Viljoen, Afritech (ICMI pre-certified Mine Technical Specialist).

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Signature of Mine Technical Auditor

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### COMPLIANCE STATEMENT

Damang Gold Mine, Ghana has not experienced any cyanide incidents or compliance issues during the previous three year audit cycle.

### NAME OF OTHER AUDITORS

Dawie Viljoen

### DATES OF AUDIT

The Re-certification Audit was undertaken from 24 June 2024 to 27 June 2024.

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 (ICMI) and that all members of the audit team meet the applicable criteria established by the International Cyanide Management 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

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accordance with the International Cyanide Management Code Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

The “International Cyanide Management Code for The Manufacture, Transport, And Use of Cyanide In The Production Of Gold and Silver” (the Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then, International Council on Metals and the Environment.

The Code is a voluntary industry programme for gold and silver mining companies, and companies involved with the production and transport of cyanide to gold and silver mining companies; it focuses exclusively on the safe management of cyanide. Companies that adopt the Code must have their operations, which manufacture cyanide, transport cyanide or use cyanide to recover gold and silver, audited by an independent third party to determine the status of the Code’s implementation. Those operations that meet the Code’s requirements can be certified and are able to use a unique trademark symbol, which identifies the company as a certified operation. Audit results are made public to inform stakeholders of the status of cyanide management practices at the certified operation.

The objective of the Code is to improve the management of cyanide used in gold and silver mining and assist in the protection of human health and the reduction of environmental impacts (refer to [www.cyanidecode.org](http://www.cyanidecode.org)). The Code is managed by the International Cyanide Management Institute (ICMI).

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## Principle 1 – Production and Purchase

**Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that 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.**

☒ in full compliance with

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

☐ not in compliance with

### **Summarise the basis for the findings/deficiencies identified.**

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

Damang purchases cyanide from a supplier that obtains the cyanide from a manufacturing facility that is certified as being in compliance with the Code.

Cyanide was purchased directly from Samsung C and T Deutschland GnbH (Samsung) from 27 September 2019 to April 2023 at which time the contract lapsed and cyanide has subsequently been purchased from Hebei Chengxin Co., Ltd (Hebei).

Samsung supplied Damang Mine with solid sodium cyanide from the TaeKwang Industrial Co., Ltd (TaeKwang) production facility, South Korea. The TaeKwang production facility was first certified on 14 April 2008 with the latest recertification being on 21 August 2023.

There is a written agreement between the cyanide supplier (Samsung C&T Deutschland GmbH) and the operation (Abosso Goldfields Damang Gold Mine), dated 1 May 2020 – 30 April 2022, which was subsequently extended to 30 April 2023.

Following the cessation of the contract, solid cyanide has been supplied to the mine by Hebei Chengxin Co. Ltd P.R. China (Hebei) on an ad hoc basis. The Hebei production facility in Yuanshi County, China was first certified on 01 October 2012 with the latest recertification being on 18 April 2023.

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## Principle 2 – Transportation

### Protect Communities and the Environment During Cyanide Transport.

**Standard of practice 2.1: Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.**

☒ in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 2.1**  
☐ not in compliance with

#### Summarise the basis for the findings/deficiencies identified.

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

The operation has chain of custody records identifying all transporters and supply chains responsible for transporting cyanide.

The records include documentation from the producer (TaeKwang, South Korea), via the transporter (Vehrad Transport and Haulage, and Bollore Transport & Logistics Ghana) to the operation (Damang Mine) as part of the contract with Samsung until April 2023.

Subsequent to April 2023 solid cyanide was obtained from the producer (Hebei, China), via the transporter in China (Hebei Chengxin Transport) and the transporter in Ghana (Movis Logistics Limited) to the operation (Damang Mine).

All identified transporters are individually certified in compliance under the Code or included in a certified supply chain.

The contract with Samsung stated that all third parties engaged by Samsung for the manufacture, transport and use of cyanide will be a signatory to and comply with the requirements of the International Cyanide Code. The contract with Samsung includes transport and delivery of the cyanide to the mine site. Samsung uses subcontractors for the transportation of solid cyanide from the production facility in Korea to Pusan New Port in Korea and from the Port of Tema in Ghana to the mine as certified under the Samsung Africa Supply Chain. The supply chain was initially certified on 12 July 2011 with the most recent recertification being on 9 August 2024.

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The transporters involved in the supply of solid cyanide from Hebei are certified via their Global Ocean Supply Chain. The supply chain was initially certified on 29 August 2017 with the most recent recertification being on 30 October 2023.

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## Principle 3 – Handling and Storage

### Protect Workers and the Environment During 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.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 3.1**

☐ not in compliance with

#### Summarise the basis for the findings/deficiencies identified.

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

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

The cyanide reagent facility consists of the solid cyanide storage shed and offloading area, the mixing tank, and the cyanide liquid storage tank. A third-party inspection of structural steelwork declaring the Plant as being constructed in accordance with design documents was observed by the auditors. The inspection included a survey on the cyanide mixing and storage facility that was conducted in September 2023. The infrastructure used for the unloading, storing and mixing of cyanide was found to be in good working condition.

The solid cyanide unloading and storage facilities, mixing and liquid cyanide storage tanks are located away from people and surface waters. It was verified during the site audit that the cyanide boxes together with the cyanide mixing and liquid storage tanks are located within the Plant, which is an access controlled part of the mine located away from surface waters.

The Plant only uses solid cyanide briquettes, which are delivered in sea containers, destuffed by forklift, and packed in the cyanide storage shed before being made up to a cyanide process solution in the mixing facility.

There are systems in place to prevent the overfilling of cyanide storage tanks, and the systems are tested and maintained on a routine basis as part of the planned maintenance system (PMS)

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The cyanide mixing and liquid storage tanks are both equipped with level indicators and alarms linked to the Control Room.

The auditors observed level and alarm setting on the SCADA system where the high level alarm is set at 90% and the high-high level alarm is set at 95% for both the mixing and liquid storage tanks.

Transfer of liquid cyanide from the mixing tank to the liquid storage tank is only done once the Control Room operator has checked that the level in the liquid storage tank is below 50% as the volume of the mixing tank is less than 50% of the liquid storage tank and therefore at this level it cannot be overfilled. This is detailed in the following procedures observed by the auditors.

- *SOP MT0002, rev 1.0 J, 11 October 2022 -Sodium Cyanide Transfer,*
- *SOP MT 0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes.*

It was observed during the site assessment that the cyanide mixing and liquid storage tanks are located on concrete plinths within a concrete bunded area that provides a competent barrier to leakage and can prevent seepage to the subsurface

The following was confirmed during the site inspection that cyanide is stored:

- a) Under a roof, off the ground, or with other measures to minimise the potential for contact of solid cyanide with water.

The solid cyanide boxes are stored in a warehouse and on wooden pallets i.e. under a roof and off the ground to minimise the potential for contact of solid cyanide with water. The roof of the warehouse extends beyond the storage area to prevent rainwater entering the storage area. Any water in the storage area drains to the perimeter drain for the Plant.

- b) With adequate ventilation to prevent the build-up of Hydrogen Cyanide (HCN) gas.

The warehouse is ventilated with open sides, secured with chain link fences, to prevent the build-up of hydrogen cyanide gas. It was observed that the cyanide storage and mixing tanks are fitted with ventilation pipes on the side of the tanks. The mixing and liquid storage tanks are located in an open air environment.

- c) In a secure area where public access is prohibited, such as within the fenced boundary of the Plant.

The solid cyanide warehouse is located within the Gold Plant that is a high security area, with access control and security patrols. The storage shed is triple locked with keys held by the Security officer, Warehouse Supervisor and Process Plant Supervisor.

- d) Separately from incompatible materials, such as acids, strong oxidisers and explosives and apart from foods, animal feeds, and tobacco products with berms, bunds, walls or other appropriate barriers that will prevent mixing.

The solid cyanide is stored separately from incompatible materials, such as acids, strong oxidisers and explosives and apart from foods, animal feeds, and tobacco products. The liquid cyanide is stored in the mixing tank and liquid cyanide tank in a dedicated bunded area with walls separating these tanks from nearby chemical tanks.

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**Standard of practice 3.2: Operate unloading, storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 3.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

With respect to empty cyanide containers, procedures are in place and implemented to:

- Prevent empty cyanide containers from being used for any purpose other than holding cyanide; and
- Burn or otherwise dispose of empty wooden crates in an environmentally sound manner.

The empty solid cyanide containers are kept inside the cyanide storage area. Three empty boxes are dismantled and placed in the fourth box and kept in the locked cyanide storage area. The procedure requires that the area be cleaned after all empty boxes have been removed.

The empty storage containers (comprising wooden boxes, bulk bag inners and plastic bags liners) are placed back in the sea container in which they arrived and transported by Vehrad (up to April 2023) or Movis (from April 2023) to their respective licenced incinerators in Tema where the containers are incinerated.

- Rinse empty cyanide drums, plastic bags and liners with water three times and add the rinse water to the cyanidation process or otherwise disposed of in an environmentally sound manner; and
- Clean any cyanide residue from the outside of cyanide containers that are returned to the vendor and securely close them for shipment

The woven polypropylene bags are washed as part of the offloading process however the outer plastic bags and boxes are not washed prior to being placed back in the sea containers in which they arrived, securely closed. This is acknowledged by Vehrad and Movis as standard procedure and the necessary health and safety precautions are undertaken when unloading the sea containers by Vehrad or Movis at their respective incinerators.

The operation has developed and implemented procedures to prevent exposures and releases during cyanide unloading and mixing activities. The procedures listed below were

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reviewed by the auditors. In addition, a mixing event was observed with the auditors, checking implementation of the procedure by the operator performing the mixing task, as well as interviews of the operators performing the mixing.

- a) Operation and maintenance of all hoses, valves and couplings for unloading liquid cyanide and mixing solid or liquid cyanide.

*SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes* – Cyanide mixing and disposal of empty boxes - describes the handling of valves and couplings during cyanide mixing. The procedure stipulates that any spillage be hosed down. The procedure also stipulates the required personal protective equipment (PPE) and the use of a third individual observing from outside the mixing area with the sole purpose to respond to any emergency.

*SOP MT0002, rev 1.0 J, 11 October 2022 -Sodium Cyanide Transfer* -Sodium Cyanide Transfer; which includes the operation and sequencing of feed and discharge valves during and after mixing.

The maintenance of the hoses, valves and couplings for the mixing of solid cyanide are part of the shiftly plant inspections.

- b) Handling cyanide containers without rupturing or puncturing.

*SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes* – Cyanide mixing and disposal of empty boxes. Bags are lifted from the box to the mixing tank by crane which minimises the risk of rupturing or puncturing by forklift. No liquid sodium cyanide in containers are handled.

- c) Limiting the height of stacking of cyanide containers.

*SOP MT0007, rev 1.0 M, 21 April 2023, - Procedure for unloading shipping container* - Procedure for unloading shipping container, which stipulates maximum stacking height of 3 boxes. This was verified in practice during the site inspection. The procedure stipulates that the boxes should be handled carefully and transported to the storage shed. Any damage should be reported to the Supervisor immediately.

- d) Timely cleanup of any spills of cyanide during mixing and transfer of liquid cyanide from tanker trucks and isotainers.

The following procedures detail the timely clean-up of spills.

*MT 0010 Rev 1.0 L, 11 October 2023 - Procedure for handling dry sodium cyanide spill (Spilt Bag)*

*MT 0011 Rev 1.0 J, 21 April 2023 - Procedure for handling dry sodium cyanide spill (Sea Container)*

*MT 0012 Rev 1.0 K, 04 October 2022 - Procedure for handling wet cyanide spills.*

- e) Providing for safe unloading of liquid cyanide and manual mixing of solid cyanide by requiring appropriate personal protective equipment and having a second individual observe from a safe area, or observe remotely by video?

All of the procedures include the specification of PPE to be used.

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The actual mixing is performed by two individuals (one forklift driver that opens and prepares the cyanide bags, while the other operator manoeuvres the crane and empties the cyanide into the tank). A third person acts as buddy and observes the mixing.

- f) Addition of colorant dye to solid cyanide prior to or at the point of mixing into solution and/or provisions for the addition of colorant dye to high-strength liquid cyanide prior to delivery at the mining operation.

It is confirmed in *SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes* that the red dye is added during the mixing operation as part of the process loading the briquettes into the mixing tank. The high strength process solution was observed to be dyed through observation of the dosing point.

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## 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 preventative maintenance procedures.**

☒ in full compliance with

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

☐ not in compliance with

#### Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.1; to implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

The operation has written management and operating plans or procedures been developed for cyanide facilities including unloading, mixing and storage facilities, process plants, and tailings impoundments, including the following:

The operation has 220 Standard Operating Procedures (SOPs). There are currently 50 cyanide related procedures describing how cyanide-related tasks such as unloading, mixing, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimize worker exposure.

The operation does not have a heap leach, cyanide treatment, regeneration or disposal systems.

The operation's plans or procedures identify and account for the assumptions and parameters on which the facility design was based and any applicable regulatory requirements as necessary to prevent or control cyanide releases and exposures consistent with applicable requirements, which includes the following.

*SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes*, procedure states bags of caustic are added to cyanide-mixing tank to ensure that the pH of the solution in the mixing tank is 10.5 (measured via inline pH meter).

*SOP MT 0049 1.0 G Procedure for Determination of pH & Free Cyanide Concentration in CIL Tanks*. Procedure states that the pH in CIL Tank 1 should be above 9.8. (measured via an inline pH meter).

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*Procedure ML 06, rev number 2.0 - Procedure for Tailings Management System* (delivery line, distribution line and offtakes, TSF, reclaim pumps and return water pipeline) detailing the actions for ensuring that the supernatant pond does not develop close to the dam walls, removing process water from the tailings, avoiding spillage and unplanned discharge into the environment, appropriately managing the tailings delivery, distribution and return water lines, maintaining a constant source of water supply to the mill, ensuring that: WAD cyanide at the spigot does not exceed 50 parts per million (ppm),

Knight Piesold TSF operating manual (2004) includes the TSF design standards to contain a 1:100 year storm event of 276 mm.

The operation has plans and procedures that describe the standard practices necessary for the safe and environmentally sound operation of the facility including the specific measures needed for compliance with the Code, such as water management, inspections and preventive maintenance activities including the following.

*Basis of Design Document for the Damang Mine Water Balance Model*, March 2022, Golder Associates Africa (Pty) Ltd describes all water balance parameters, the operations and assumptions of the water balance, including normal, abnormal and emergency situations.

*Procedure ML 06, rev. 2.0, January 2004, Procedure for Tailings Management System* (delivery line, distribution line and offtakes, TSF, reclaim pumps and return water pipeline) detailing the actions for ensuring that the supernatant pond does not develop close to the dam walls, removing process water from the tailings, avoiding spillage and unplanned discharge into the environment, appropriately managing the tailings delivery, distribution and return water lines, maintaining a constant source of water supply to the mill, ensuring that WAD cyanide at spigot does not exceed 50 ppm.

The mine undertakes a number of operational inspections to ensure the facility is being operated in a safe and environmentally sound manner including the following.

- Cyanide and Reagents Area Checklist, (shiftly) this includes PPE, Cyanide transfer lines, levels on cyanide mixing and storage tanks, cyanide agitator, safety shower, cyanide area bund and sump, monitors, flow meters and valves, hoses, and tanks for leaks and signs of corrosion.
- CIL Checklist (shiftly) this includes checking cyanide flow rate to tank 1, valves, hoses, and tanks for leaks and signs of corrosion.
- Monthly Health and Safety Checklist, this includes general conditions first aid equipment, leaks and spills, PPE, and equipment.
- Mine wide Emergency Eye Wash and Safety Shower Register – inspections are undertaken on a monthly basis .
- Monthly inspections of Fire Extinguishers – the register of this is on the fire extinguishers, observed for.
- Annual servicing of Fire Extinguishers.

The TSF has daily, monthly, and quarterly inspections. The following documents were observed

- Tailings Daily Checklist, this includes integrity of pipelines and embankments, wildlife, and performance of underdrains.

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- Monthly Damang TSF Operational Report
- Quarterly Engineer of Record Site Audits

Preventive maintenance activities are programmed in SAP which schedules all preventive maintenance activities for the mine. All work orders issued on SAP are being kept in the system to track the maintenance history of each piece of equipment. The asset list was observed by the auditors and confirmed to include; valves, pumps, tanks, alarms, monitors, and gensets for the Plant. Job cards are also raised where ad hoc maintenance is required by the plant inspections or observations from foremen and the control room.

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

The operation implements *SP019 Change Management rev 15, 20 September 2023*. The purpose of the procedure is to detail the change management process used at Damang so as to ensure that:

- A structured approach is applied to the management of change on site; and
- Information relating to changes to the business is communicated to all interested and affected parties.

The procedure covers any changes to the Plant, equipment, machinery, software, staffing or process that take place on the mine. These reports were signed off by Heads of Department (HOD) for the following departments; Health Safety, and Environment (HSE), Mining, Human Resources (HR), Engineering and Protection Services.

For each change management opportunity, a Change Assessment and Implementation form is completed. The form stipulates the proposed change, Advantages, Alternatives, Change Type, Area Affected, possible impacts, Department, sign-off by various departments.

The operation has developed a number of procedures for contingencies and non-standard operating conditions, including an upset in the water balance, problems identified by monitoring or inspection, and either planned or emergency shutdowns, including a temporary closure or cessation of operations. The following procedures were observed.

Upset in water balance:

- *SOP MT 0015 1.0 P 2/09/23-Procedure for tailings delivery pipeline failure;*
- *SOP MT0016 1.0 I 13/06/2022 - Procedure for management of tailings deposition spigot line failure;*
- *SOP MT0017 1.0 J 25/08/2023 - Procedure for return water pipeline failure; and*
- *SOP MT0023 1.0 i 30/05/2022 -Procedure for process water pond liner failure.*

Temporary closure or cessation of operations:

- *SOP MT0098 1.0 K 20/05/23 - Procedure for process water pond operation during planned shutdown (this is for a short term or long term shutdown);*
- *SOP MT0100 1.0 I 7/06/22 -Procedure for shutdown of the Processing Plant in case of Tailings line rupture (this is for emergency shutdown);*

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- *SOP MT0137 1.0 I 06/10/2022 - Procedure for draining and neutralising cyanide mixing/storage tank* (in case of a long-term shut down);
- *ML 06\_Procedure for Tailings Management - Rev 2.0. Section 4.6 Incident and Emergency Procedures* (actions to be undertaken in case of emergency shutdown); and
- *SOP MT0104 Procedures for Processing Plant Shutdown rev 1.0 D 16 August 2023.* This includes the shutdown of the mills and running the delivery pumps from the CIL until the tailings flow stops and then flushing the tailings line. This is applicable for a planned shutdown short-term or long-term.

Problems identified by monitoring or inspections: the SAP PMS raises a work order and records the corrective actions and corrective maintenance that is being undertaken when inspections or monitoring identifies a problem.

The operation inspects the following at unloading, storage, mixing and process areas, including tanks, secondary containments, pipelines, pumps, valves, and ponds.

- a) Tanks holding cyanide solutions for structural integrity and signs of corrosion and leakage.

A structural integrity inspection is undertaken on a 3 yearly basis. Auditors observed Visual Structural Inspection Report – *SIMM Inspection of Goldfields Damang Mine, September 2023, DRA*. A specific inspection of the Plant was also undertaken. The auditors observed *Structural Integrity Audit of cyanide Management Facilities at Goldfields Limited (Damang Gold Mine) July 2023, INI*. This included the thickness testing of the CIL tanks, CN mixing and Storage tanks.

The Reagents Section Shiftly inspections includes a visual check for any leakage of the mixing, storage, CIL, ILR and elution tanks, in addition there is an annual inspection of the CIL tanks undertaken as part of the SAP PMS.

- b) The Cyanide and Reagents Area and CIL shiftly inspections include checks on secondary containments provided for tanks and pipelines for physical integrity, the presence of fluids, and available capacity.

It is not necessary to ensure that any drains are closed and, if necessary, locked, to prevent accidental releases to the environment as this is not possible with all spillages either being within a bunded area or reporting to the Process Pond.

- c) Leak detection and collection systems at ponds, as required in the design documents.

There are no leak detection systems for the Process Pond which collects rainfall and spills in the Plant outside bunded areas. Any overflow goes to the Detox Pond, which also does not have a leak detections system.

The TSF has an underdrain for any leakages that is inspected as part of the daily TSF inspections. Any leak from the tailings pipeline is collected in paddocks along the pipeline. This is also inspected on a daily basis.

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d) Pipelines, pumps and valves for deterioration and leakage.

Pipelines, pumps and valves within the Plant are checked for deterioration and leakage on a shiftly basis as part of the Cyanide and Reagents Area Inspection and CIL Inspection. This is also inspected on a weekly basis as part of the Cyanide Plant Inspection on the SAP PMS.

e) Ponds and impoundments for the parameters identified in their design documents as critical to their containment of cyanide and solutions and maintenance of the water balance, such as available freeboard and integrity of surface water diversions.

The freeboard of the TSF is checked on a monthly basis. This is also included in the quarterly report for the TSF. The auditors observed the Engineer of Record Site Audit Q4 2023. This states that the site is able to maintain the design freeboard of 2.4 m. The current freeboard at the time of the site assessment was 3.6 m.

There are no surface water divisions as the TSF is raised above the surrounding area. This is a similar situation for the Process Pond and the Detox Pond at the Plant.

The operation inspects the cyanide facilities on an established frequency sufficient to ensure and document that they are functioning within design parameters. Inspections of the Plant are undertaken on a shiftly, weekly (as part of PMS) and monthly (Health and Safety) basis. Inspections of the TSF are undertaken on a daily, monthly, and quarterly basis. For the preventive maintenance, inspection activities are being undertaken as required by the specific piece of equipment, with the period being anything between daily to yearly. The records are on the SAP PMS. It is concluded that the inspection frequency is adequate to assure that the facility operates within design parameters. The inspection reports and checklists identify the specific items to be observed and include the date of the inspection, the name of the inspector, and any observed deficiencies.

The nature and date of the corrective action is documented through the SAP planned maintenance system where the work orders are generated. The records are retained through the SAP PMS.

The mine undertakes a number of operational inspections as well as health and safety inspections, as detailed above, to ensure the facility is being operated in a safe and environmentally sound manner. A preventive maintenance program is implemented and activities documented to ensure that equipment and devices function as necessary for safe cyanide management. All work orders issued on SAP are kept in the system to track the maintenance history of each piece of equipment.

The operation has the necessary emergency power resources to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted. The Plant obtains power from an independent power supplier that runs a gas turbine facility adjacent to the mine area. In the event of a power failure there are back-up diesel generators.

Maintenance of the diesel generators is undertaken by the electrical team with the inspections and maintenance being done according to a schedule in the SAP PMS. The

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maintenance schedule for Power Plant covers the original equipment manufacturer and electrical maintenance schedules. There are 26 diesel generators as backup that can run the whole Plant.

The Plant is designed with sumps and sump pumps to contain spillages and return spillages to process tanks that occur during any power outages. The lack of power does not result in releases to the environment as only the final tailings tank is gravity fed, and any overflow is contained within the bunded area before being pumped back into the system once the power returns.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation implements a program to evaluate cyanide use in the Plant and adjust the addition rate to minimize its use.

Up to January 2023 the Plant was receiving ore from the various pits as well as from stockpiles around the mine. Since January 2023 no new blasting has been undertaken and the Plant has just been receiving ore from the various stockpiles at the mine.

Ore is fed into the Plant based on grade and not the lithology or type of ore. If it is observed there is high consumption of cyanide due to ore being treated, it is possible to adjust the feed from a different stockpile.

Approximately 30 % from the cyclone underflow reports to the Knelson Concentrators that feeds the ILR. The feed grade and residue grades are checked to determine the set point for the ILR. From the ILR the barren eluate reports to CIL tank No. 1. The cyanide is pumped at a steady flow rate from the cyanide storage tank at a configured rate as per setpoint to the doing point in CIL Tank 1.

The Mine conducts daily bottle roll tests on composite head grade (24 hrs) and extended leach of 4 hours on tailings. The Metallurgists evaluate the results of the bottle roll tests to determine the need for changing cyanide setpoints on the CIL 1 tank. The set point at the time of the site assessment was 120 mg/l free cyanide.

The diagnostic leach tests are used by the Metallurgists to determine if feed from these sources require process parameter reviews when treated at the Plant. The Daily bottle roll tests are used to review free cyanide setpoints for the cyanide values in CIL 1 tank. Any change in setpoint is communicated to the process control room and recorded in the shift log sheets.

Cyanide addition is controlled using the inline Mintek Cynoprobe free cyanide readings, regulating the cyanide dosing feed pump speed to achieve the free cyanide setpoint in CIL Tank 1. The WAD analyser in CIL Tank 8 is used to measure the level of WAD cyanide and whether it is necessary to adjust the setpoint in CIL Tank 1.

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Manually titration is undertaken every 2 hours to verify the cyanide concentration in CIL Tank 1 and 8. The control room checks the cyanide levels in both tanks every hour. Assays are undertaken on the final residue in CIL Tank 8 to determine the residue gold to ensure optimum recovery.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.3**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has developed a comprehensive, probabilistic water balance as detailed in *Basis of Design Document for the Damang Mine Water Balance Model, March 2022, Golder Associates Africa (Pty) Ltd.*

It was confirmed that the water balance modelling is using the Goldsim software which is comprehensive and probabilistic.

The model uses the daily precipitation records together with 35 years of historic rainfall records to model the uncertainty and variability in the prediction of precipitation patterns, including the ability to consider the frequency and distribution of precipitation events along with extremes and seasonal variations. The water balance considers the following in a reasonable manner and as appropriate for the facilities and the environment. The water balance model includes the following:

- a) The rates at which solutions are applied to leach pads and the rates at which tailings are deposited into tailings storage facilities. It was confirmed that the model includes the quantity of slurry from the Plant pumped to the TSF. This is calculated using the tonnage and density of the tailings from information supplied by the Plant.
- b) A design storm duration and storm return interval that provides a sufficient degree of probability that overtopping of the pond or impoundment can be prevented during the operational life of the facility. Precipitation to the TSF is calculated daily using the catchment area and the rainfall to the TSF measured by the TSF rain meters. The previous year's monthly averages are used to forecast the current year volume to the TSF. The forecast includes the dry and wet season. A 1 in 100 year 24 hour storm event (276 mm) is calculated using a Log-Pearson Type III probability distribution from historic rainfall data with the TSF design showing this can be accommodated on the TSF.
- c) The quality of existing precipitation and evaporation data in representing actual site conditions. The water balance considers the quality of existing precipitation and evaporation data in representing actual site conditions. The rainfall is measured for the TSF on a daily basis using rain gauges at the TSF and the data is input into the

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spreadsheet. Rainfall data for the previous 35 years was used in developing the forecasts. Evaporation is calculated using monthly temperature statistics.

- d) The amount of precipitation entering a pond or impoundment resulting from surface run-on from the up gradient watershed, including adjustments as necessary to account for differences in elevation and for infiltration of the runoff into the ground. There is no run-on to the TSF from outside the TSF catchment area or for any other pond i.e. the Process Pond and the Detox Pond. This was confirmed during the site assessment.
- e) Effects of potential freezing and thawing conditions on the accumulation of precipitation within the facility and the up gradient watershed. This is not applicable as the mine is in a tropical zone.
- f) Solution losses in addition to evaporation, such as the capacity of decant, drainage and recycling systems, allowable seepage to the subsurface, and allowable discharges to surface water. Evaporation is calculated using monthly temperature data. There are no discharges to surface water. There is a nominal seepage to subsurface, which is included in the model.
- g) The effects of potential power outages or pump and other equipment failures on the draindown from a leach pad or the emergency removal of water from a facility. The TSF has sufficient freeboard to accommodate a 1 in 100 year 24 hour storm event (276 mm) and therefore a power outage will not create a risk of overtopping. If the Process Pond overtops this flows into the Detox Pond which together have sufficient capacity to contain a 1 in 100 year 24 hour storm event.
- h) Where solution is discharged to surface waters, the capacity and on-line availability of necessary cyanide treatment, destruction, or regeneration systems. There is no discharge to surface waters. There is no cyanide treatment, destruction or regeneration system.
- i) Other aspects of facility design that can affect the water balance, such as the assumed phreatic surface in a tailings storage facility. Detailed phreatic levels are recorded in the quarterly Engineer of Record's Reports, and these levels are used in the model.

Ponds and impoundments are designed and operated with adequate freeboard above the maximum design storage capacity determined to be necessary from water balance calculations. The TSF is operated with a minimum freeboard of 2.4 m as per the design documents. The freeboard at the time of the site assessment was 3.6 m.

The Process Pond is not operated with a minimum freeboard but is allowed to overflow into the Detox Pond, which is kept empty where possible and if it is used to contain any overflow it is emptied as soon as practical. The operating procedures incorporate inspection and monitoring activities as necessary to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment including the following.

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*Procedure ML 06, Rev 2.0 Procedure for Tailings Management* (this procedure includes the delivery line, distribution line and offtakes, TSF, reclaim pumps and return water pipeline) and details the actions for the following:

- Ensuring that the supernatant pond does not develop close to the dam walls;
- Removing process water from the tailings;
- Avoiding spillage and unplanned discharge into the environment;
- Appropriately managing the tailings delivery, distribution and return water lines;
- Maintaining a constant source of water supply to the mill; and
- Ensuring that WAD cyanide at spigot or in supernatant does not exceed 50 ppm.

The tailings management procedure details the target beach length of 100 m with a minimum allowable of 50 m and a beach freeboard in excess of 0.5 m. The TSF has daily, monthly, and quarterly inspections.

The level of water in the Detox Pond is checked on a daily basis as part of the Daily TSF Inspection.

The operation measures precipitation, comparing the results to design assumptions and revising operating practices as necessary. Precipitation is measured at the site weather station, and in addition, freeboard and beach length (direct incidence of the precipitation) are measured on a monthly basis and fed back to the mill department and the dam designers.

The water balance is updated on an annual basis.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.4**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has does not have any open water where it is necessary to implemented measures to restrict access by wildlife and livestock as the WAD cyanide does not exceeds 50 mg/l.

Proc ML 06 Procedure for Tailings Management, Rev 2.0 includes a requirement to ensure that WAD on Tailings Dam does not exceed 50 mg/l.

The operation can demonstrate that the cyanide concentration in open water in TSF's, and solution ponds does not exceed 50 mg/l WAD cyanide.

WAD cyanide monitoring is conducted at the following locations and frequencies:

- Tailings Tank – hourly;
- The spigot on the TSF- once a week;
- At the decant pump of the TSF – weekly; and
- Process Water Pond (inside the Plant) – monthly.

The results for 2021, 2022, 2023, and 2024 up to June were observed for all of these locations.

The results for the Tailing Tank and spigot on the TSF were all below 50 mg/l WAD cyanide.

The results for the return water at the decant pump were all below 0.5 mg/l WAD cyanide.

The results for the Process Water Pond were all below 0.5 mg/l WAD cyanide except for 6 exceedances in 2023 with the highest result being 9 mg/l WAD cyanide and one exceedance in 2024 of 7.8 mg/l WAD cyanide.

Maintaining a WAD cyanide concentration of 50 mg/l or less in open water is effective in preventing significant wildlife mortalities. The TSF and Plant are inspected for wildlife mortalities on a daily basis. No wildlife mortalities have been recorded since the previous recertification audit.

There is no heap leach on site.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.5**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

During the site inspection, it was verified that there are no direct or indirect discharges to surface water from the Plant or the TSF.

The operation monitors for cyanide in surface water upgradient (Beni1) and downgradient (BeniD) of the site. All monitoring results for 2021 – June 2024 were below the detection limit of 0.005 mg/l free cyanide.

There are no known indirect discharges to surface water. The Ghanaian EPA standard for surface water is 0.6 mg/l total cyanide. All of the surface water monitoring results showed the concentration of total, WAD and free cyanide to be below the detection limit of 0.005 mg/l.

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**Standard of practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.**

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.6**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation implements specific water management and other measures to manage seepage to protect the beneficial use of ground water beneath and / or immediately down gradient of the operation. This includes the following.

Two TSF seepage sumps that collect water from the TSF underdrains have been constructed, lined with high density polyethylene (HDPE) and fitted with a pump. The seepage water is pumped back to the TSF.

The Process Water Pond and the Detox Pond at the Plant are HDPE lined. Tailings distribution and return water pipelines are located in an HDPE lined trench. All bunds in the Plant are concrete lined.

The operation monitors for cyanide in groundwater downgradient of the site and can demonstrate that concentrations of WAD cyanide (or other species of cyanide for which there is a numerical standard established by the applicable jurisdiction) in groundwater at compliance points below or downgradient of the facility are at or below levels that are protective of identified beneficial uses of the groundwater.

The beneficial uses of groundwater downgradient of the facility are likely to include the provision of drinking water and water for livestock as this is obtained via wells abstracting water from the local groundwater.

The Ghanaian EPA standard for groundwater is 0.6 mg/l total cyanide. All of the groundwater results for 2021 – June 2024 from boreholes (FETSF, FETE01, FETE02, FETE03, FETE04, FETNE01, FETNE02, FETS01) upgradient and downgradient of the site show concentrations of total, free, and WAD cyanide to below the detection limit of 0.005 mg/l.

The mine is an open pit and mill tailings are not used as underground backfill.

Seepage from the operation has not caused cyanide concentrations of groundwater to rise above levels protective of beneficial use as all groundwater monitoring shows concentrations to be below the detection limit of 0.005 mg/l total, free and WAD cyanide.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 4.7**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

Spill prevention or containment measures are provided for all unloading, storage, mixing and process solution tanks. It was confirmed during the site assessment that all tanks (cyanide mixing, storage, CIL, and elution,) are located inside concrete bunds which were all in good condition. The tanks are all constructed with concrete bases.

The solid cyanide storage area is equipped with concrete flooring and with a concreted channel on one side that allows for any liquid to be directed to the Process Water Pond located within the Plant.

The site assessment verified that all of the mixing, storage and process tanks are located in concrete bunds providing a competent barrier to leakage. A concrete perimeter trench, fitted with sump pumps, is located inside the perimeter of the Plant. Spillage not contained in any of the secondary containment will be contained in the trench and either pumped back to the process or drained to the Process Water Pond, which is lined with HDPE.

Secondary containments for cyanide unloading, storage, mixing and process tanks 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.

The following information regarding secondary containments volumes was verified during the audit:

- The reagent strength bund area (231 m<sup>3</sup>) is sized to contain the 110% volume of the largest tank (cyanide storage tank -150 m<sup>3</sup>).
- The ILR Bund Volume 54 m<sup>3</sup> is sized to contain the greater than 110% volume of the ILR largest tank (7 m<sup>3</sup>).
- The largest tank in the inter-linked bund areas in the Plant is the CIL tank (3,100 m<sup>3</sup>). The bund volume is 3,534 m<sup>3</sup> and therefore large enough to accommodate greater than 110% of the tank volume.
- In addition any leaks or spills outside the bunded areas or overflows from the bunds will flow to the Process Water Pond via the concrete lined perimeter drain that has a capacity of 11,902 m<sup>3</sup>.

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Procedures are in place and being implemented to prevent any discharge of a cyanide solution or cyanide contaminated water that is collected in a secondary containment area to the environment. Containment bunds at the mixing and storage tanks, the ILR and the inter-linked bunds for the CIL are equipped with sump pumps, which are operated manually to return any spillage back to the process.

The following procedures are relevant to the handling of solution collected in secondary containment.

- *MT 0012 Rev 1.0 K, 04 October 2022 - Procedure for handling wet cyanide spills.*
- *SOP MT0014 1.0 K 20 April 2023 - Procedure for Management of Sodium Cyanide Leakage or Pipe Rupture.*
- *SOP MT 0015 rev 1.0 P 02 September 2023-Procedure for tailings delivery pipeline failure;*

There is a Plant wide *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*. There is a section on Tailings Dam or Line Failure p10. In addition, there is a specific cyanide related procedure *SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure*.

There are no cyanide process tanks without secondary containment.

Spill prevention or containment measures are provided for all process solution pipelines to collect leaks and prevent releases to the environment. The tailings pipe between the Plant and the TSF, within the Plant is running over concrete which drains to the Process Water Pond, while outside the Plant it is running inside a HDPE lined trench with any spills draining to paddocks from where it can be cleaned up. Daily inspections are conducted of the TSF tailings line as well as the return water line.

Process solution pipelines within the Plant are installed in pipe racks above concrete areas where spillages are contained in the bunded areas that are returned to the process via sump pumps. Any spillage outside a bunded area will flow to the perimeter trench and subsequently to the Process Water Pond. The Plant pipelines are inspected as per the shiftly inspection checklist and in accordance with the SAPs PMS.

There were no areas where the cyanide pipelines could present a risk to surface water and therefore no special protection needs are required.

Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. All tanks inside the Plant have been constructed from mild steel. Cyanide process and solution pipelines within the Plant are constructed of stainless steel. The tailings and return water pipelines are all made from HDPE.

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**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.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 4.8**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

Quality assurance and quality control programs were implemented during construction and substantial modification of all cyanide facilities. There have been no substantial modifications to the Plant since the last recertification audit. Due to the age of the Plant the QA/QC documentation was not available.

There is currently a land raise of the TSF being undertaken (Phase 4 Lift). Construction supervision is being undertaken by Knight Piesold. The QA/QC documentation for this was available including the following:

- Daily Report – 20 December 2023 detailing; the conditions on site, the Daily Site Inspection, the QA/QC activities, and photographs of the work undertaken.
- Abosso Goldfields Limited, Damang Mine, Damang Weekly Progress Report – FETST Stage 4 Raise Construction, week ending 14 January 2024. This included Section 6 Quality Control, Quality Assurance and Field Engineering, and Section 7 Design Issues.

The quality control and quality assurance programs as documented in the daily reports and weekly progress reports, address the suitability of materials and adequacy of soil compaction for earthworks such as earthen liners and the installation of synthetic membrane liners for the TSF raise.

Quality control and quality assurance records have not been retained for cyanide facilities other than those detailed above. An appropriately qualified person has inspected those elements of the facility involving cyanide as detailed below.

An appropriately qualified person has reviewed the construction of the Phase 4 Lift and provided documentation that the facility has been built as proposed and approved. These documents were signed by the Engineer of Record on behalf of Knight Piesold.

There is no available quality control and quality assurance documentation or as-built certification for the construction of the Plant. Therefore, an appropriately qualified person has inspected those facilities and issued a report concluding that their continued operation

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within established parameters will protect against cyanide exposures and releases including the following.

The TSF and Tailings pipeline undergo quarterly inspections by the Knight Piesold Engineer of Record. These reports include details of:

- Structural integrity and stability;
- Drainage;
- Seepage;
- Emergency spill-way;
- Water usage;
- Deposition;
- Beach development; and
- Piezometers.

The Plant is inspected on a regular basis as detailed in the following reports that were signed by a registered engineer on behalf of the relevant organisation.

Structural integrity inspection is undertaken on a 3 yearly basis. Auditors observed the *Visual Structural Inspection Report – SIMM Inspection of Goldfields Damang Mine, September 2023, DRA*. The report included an inspection of the whole Plant including all tanks, pumps, pipelines and other equipment for structural integrity, leaks and corrosion. Any issues were transferred to can action plan that was observed by the auditors. The auditors confirmed that all items relating to the Plant had been addressed by time of the site assessment.

A specific inspection of the Plant was also undertaken. The auditors observed *Structural Integrity Audit of cyanide Management Facilities at Goldfields Limited (Damang Gold Mine) July 2023, INI*. This report assessed the structural integrity of cyanide management facilities at the Damang Gold Mine including concrete structure, steel tanks, and pipes. This included an Engineering Visual Inspection of the Reagent Area, CIL Area, and Tailings Storage Facility. This included thickness testing of all reagent, CIL and elution tanks. The visual inspection also looked for any leaks or corrosion of the pipes and tanks.

Similarly any issues that were identified were transferred to can action plan that was observed by the auditors. The auditors confirmed that all items relating to the Plant had been addressed by time of the site assessment.

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

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 4.9**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has developed the following written standard procedures for monitoring activities.

- *Proc EN 11 Procedure for Surface Water Monitoring Rev 2.3* describes the responsibilities, calibration of field equipment, sampling procedure and field information, sample identification, onsite analysis, quality control, sample preservation, sample shipment, analysis to be conducted on the samples, data management
- *Proc EN 12 Procedure for Ground Water Monitoring Rev 2.0* describes the responsibilities, the calibration of field equipment, the water level measurement, the well purging, the sampling procedure, the sample identification, the quality control, the sample preparation and preservation, the sample shipment, the analysis of sample and the data management.

Wildlife monitoring is undertaken by the Plant and TSF personnel on a daily basis as part of the inspections and recorded on the relevant checklists.

The sampling and analytical procedures have been developed by an appropriately qualified person. The procedures were developed internally by the environmental officers, and finally checked and approved by the Unit Manager Environment John Adingeloh (BSc in chemistry (2003) and MSc in Environmental Sciences (2009), (Kwame Nkrumah University of Science and Technology, Kumasi), The testing is being undertaken by SGS Maslab laboratories in their laboratory facilities in Tema.

The two monitoring procedures specify how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions, and cyanide species to be analysed and quality assurance and quality control requirements.

Sampling conditions are documented in a fieldwork notebook, including weather, livestock/wildlife activity, anthropogenic influences, etc.

Monitoring is undertaken at frequencies adequate to characterise the medium being monitored, and to identify changes in a timely manner.

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WAD cyanide monitoring is conducted at the following locations and frequencies:

- Tailings Tank – hourly;
- The spigot on the TSF- once a week;
- At the decant pump of the TSF – weekly; and
- Process Water Pond (inside the Plant) – monthly.

Groundwater and surface water monitoring are undertaken on a monthly basis. Wildlife monitoring is undertaken daily by the Plant and TSF personnel.

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## 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.**

☒ in full compliance with

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

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has developed the following written procedures to effectively decommission cyanide facilities at the cessation of operations.

- *2023 – 2024 Costed Reclamation Plan for Damang Mine, April 2024, SRK.*
- *EN02 Procedure for Rehabilitation Closure, rev 2.7, 2024.*

This Plan adequately addresses decommissioning, which is the aspect of closure that addresses the cyanide remaining on site upon cessation of production activities and prepares the site for its closure and post closure period including the management of reagent strength cyanide and process solutions remaining in storage and production facilities.

The Plan includes an implementation schedule for decommissioning activities. The Life of Mine (LOM) Decommissioning Schedule, which shows the percentage of decommissioning each year for each area.

The operation reviews its decommissioning procedures for cyanide facilities on an annual basis.

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with **Standard of Practice 5.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has developed an estimate of the cost to fully fund third party implementation of the cyanide-related decommissioning measures identified in its site decommissioning or closure plan as detailed in the *2023-2024 Costed Reclamation Plan for the Damang Mine, April 2024, SRK*. The mine's closure costing is undertaken annually by an external consultant. The report identifies the amounts required to cover cyanide facility decontamination and detoxification costs.

The closure cost estimate is updated annually by an external third party. The latest cost was updated by SRK in April 2024.

The operation has established a financial mechanism approved by the applicable jurisdiction (Ghana) to cover the estimated costs for cyanide-related decommissioning activities as identified in its decommissioning and closure strategy.

The operation had a bank guarantee and a fixed deposit account, which is sufficient to cover the identified cyanide facility decontamination and detoxification costs.

The auditors observed a letter to the Ghanaian Environmental Protection Agency with submission of reclamation plan dated 19 April 2024.

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## 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 and control them.**

☒ in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 6.1**

☐ not in compliance with

#### Summarise the basis for the findings/deficiencies identified.

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

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

- SOP MT 0137 1.0I, 06 October 2022 Procedure for draining/neutralising cyanide mixing/storage tank
- SOP MT0128 1.0G, 11 October 2022 Procedure for flushing cyanide metering pump pp020
- SOP MT 0139 1.0L, 10 October 2022 Procedure for Working On Cyanide Delivery Line.
- SOP MT0007 1.0M, 21 April 2023 Procedure for Unloading Sodium Cyanide Sea Container
- SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes.
- SoP MT0018, rev 1.0K, 25 August 2023 Procedure for Process Water Pond Detoxification
- SOP MT0134 1.0G, 20 April 2023 Procedure for Performing Work Within the Cyanide Mixing Area.
- SOP MT0259 1.0 20 May 2023 Procedure for Confined Space Entry

It was confirmed that the procedures require the use of PPE and address pre-work inspections where applicable. PPE is detailed in Section 1.0 of the procedures and pre-work inspections in Section 3.0.

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The operation solicits and actively considers worker input in developing and evaluating health and safety procedures.

Prior to drafting a procedure the Training Officer meets with operators from the relevant area. The draft procedure is then presented to the Mill Management for comment. The operators are then trained on the procedure by the Training Officer at which time they can provide additional feedback on the health and safety procedures. This was confirmed through interviews with operators.

Any changes to existing procedures are discussed during the toolbox meetings with specific sections as presented by the Training Officer and the Section Leader. Input from the employees are considered before the procedure is finalised, distributed and PTOs performed on the updated procedure.

In addition, procedures may be updated in response to an incident investigation and as part of this worker input is solicited.

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**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.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 6.2**  
☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has determined the appropriate pH for limiting the evolution of HCN gas during mixing and production activities as detailed in the following procedures.

- *SOP MT0001, rev 1.0 L, 11 October 2022 – Cyanide Mixing and Disposal of Empty Boxes*; this procedure states bags of caustic are added to the cyanide mixing tank to ensure that the pH of the solution in the mixing tank is 10.5 - 11.0. This is measured via an in-line pH meter in the cyanide mixing tank. This is shown on the SCADA display in the control room.
- *SOP MT 0049 1.0 K 220 04 2023 Procedure for Determination of pH & Free Cyanide Concentration in CIL Tanks*. This procedure states that pH in CIL Tank 1 should be between 10 and 10.5. This is measured by an in-line pH meter and confirmed through manual titration.

The operation has identified areas and activities where workers may be exposed to hydrogen cyanide gas or cyanide dust in excess of 10 parts per million (ppm) (11 mg/m<sup>3</sup>) on an instantaneous basis and 4.7 parts per million (ppm) 5 mg/m<sup>3</sup>) continuously over an 8-hour period, as cyanide and require use of appropriate personal protective equipment in these areas or when performing these activities.

A hotspot survey is undertaken using a personal monitor at the start of every shift at the Cyanide Mixing area, CIL Tank 1 and cyanide dosing area.

Personal HCN monitors are required; when entering the cyanide storage area, ILR, or when specific work is performed on the reagent strength lines at the CIL, when working in the cyanide mixing and storage area, working at the TSF deposition point, or when conducting titration tests at the Met Lab. The PPE required for these activities is specified in the relevant SOPs.

The facility uses monitoring devices in process areas and for activities involving the management of cyanide to confirm that workers are not exposed to hydrogen cyanide gas or cyanide dust exceeding 10 parts per million (ppm) on an instantaneous basis and 4.7 parts per million (ppm) continuously over an 8-hour period, as cyanide.

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Fixed and personal monitors are used. Currently four fixed HCN monitors have been installed in the following areas:

- Cyanide mixing area;
- ILR;
- CIL Tank 1; and
- Cyanide dosing point in Tank 2.

Currently fifteen personal monitors are available for use at any time on the Plant and TSF.

*SOP MT0229 1.0E 11 October 2022 Procedure for Evacuation in Cases of High HCN Gas Detection*; stipulates the following alarm levels:

- 4.7 ppm – high alarm; and
- 10.0 ppm – high high alarm.

The procedure stipulates the actions to be taken upon hearing the high and the high high alarm. The control room operator will communicate the exceedance to the General Plant Supervisor and Plant Supervisor and the Sectional operator. The following action will be undertaken.

High Alarm:

Sectional Operator.

- Section operator will cease all activities, inform the supervisor and obtain a personal monitor from the General Plant Supervisor.

Control Room Operator:

- Communicate the exceedance alarm to the General Plant Supervisor or his assistant.

High High Alarm:

Sectional Operator.

- The sectional operator will cease all activities, vacate the premises and inform the supervisor.

Plant Supervisor.

- Evacuate the area, undertake appropriate actions to address the emergency; and
- Ensure all relevant staff are contacted including the Senior Safety Officer. Cordon off the area, put on full PPE and measure using personal monitor.

Hydrogen cyanide monitoring equipment is maintained, tested and calibrated as directed by the manufacturer, and records are retained for at least three years. The Cyanide Code Coordinator is in control of calibration and handing out of Personal HCN monitors. They keep all of the new/ not used / uncalibrated personal monitors in a separate box and these are not handed out for use.

The in-use and calibrated monitors are kept separate and handed out to the various areas for use. The calibration certificates are retained for at least three years as observed by the auditors.

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Warning signs have been placed at the solid cyanide storage area, the cyanide mixing and storage tank area, the In-Line Leach Reactor, and on top of the CIL tanks, which are the locations where reagent strength cyanide is used. The signs advise workers that cyanide is present, that smoking, open flames, eating and drinking are not allowed, and what personal protective equipment must be worn, which includes a personal cyanide monitor.

There are warning signs at the TSF stating no swimming is allowed and that it is not potable water. Eating and drinking are only allowed in designated locations away from the TSF. Operators are trained that tailings deposited at the TSF contains cyanide.

High strength cyanide solution is dyed for clear identification. It was confirmed during the observation of a cyanide mixing operation that red dye is added during the mixing operation and therefore dyes the high strength cyanide solution in the mixing tank.

Showers, low-pressure eye wash stations and dry powder or non-acidic sodium bi-carbonate fire extinguishers are located at strategic locations throughout the operation where cyanide is used. This includes the solid cyanide storage area, cyanide mixing area and liquid cyanide storage area, ILR; and at the top of the CIL.

Fire extinguishers are checked on a monthly basis and recorded on the fire extinguishers. Fire Extinguishers have an annual service by the Ghana National Fire Service. Mine wide Emergency Eye Wash and Safety Shower Register records the inspections that are undertaken on a monthly basis.

Reagent strength cyanide tanks, distribution pipes and lower strength process solution pipes within the Plant are colour coded red with purple band in accordance with colour coding board observed during site visit. In addition, the pipes have the direction of their flow indicated on them.

The tailings pipes are identified with a label stating "tailings". The local communities are excluded from the mine including the area of the tailings pipeline. The workers are trained to understand that tailings contain cyanide. There are also arrows indicating the direction of flow.

English is the official language on the mine. Safety Data Sheets (from Hebei), first aid procedures and other informational materials on cyanide safety is in the language of the workforce and available in areas where cyanide is managed. It was confirmed that Safety Data Sheets (SDS) and first aid procedures are available in English in the areas where cyanide is managed.

Procedures are in place and being implemented to investigate and evaluate cyanide exposure incidents to determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or in need of being revised including the following, *SP 10 Procedure for Incident Management rev 15, 27 June 2023*. Incident Reports are completed on all incidents with examples being observed by the auditors.

The HOD of the relevant department reports all incidents via a safety flash within 24 hours. The cause is investigated with corrective and preventative actions identified and carried out. All incidents are reported through the INX InControl software with relevant HODs, including the HSE HOD reviewing the report. No cyanide incidents have occurred in the last 3 years.

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

☒ in full compliance with

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

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has water, oxygen, a resuscitator, antidote kits and a radio, telephone, alarm system or other means of communications or emergency notification readily available for use at cyanide unloading, storage and mixing locations and elsewhere in the Plant.

Radios and cell phones are the primarily means of communication.

There is an emergency PPE cabinet within the Plant close to the mixing area. This is stocked with appropriate PPE including face mask with canister and oxygen with resuscitator. In addition, there is appropriate PPE including face mask with canister and oxygen with resuscitator at the top of the CIL. Water is available through the emergency showers and eye washes in addition to potable water at the canteen outside the Plant.

The Mines Hazchem Team (3 people per shift) or the Emergency Response Team (ERT) inside the Plant (3 per shift) will attend any incident and transport any affected people to the site clinic. The site clinic is less than 500 m from the Plant entrance. The clinic is currently equipped with 2 full sets of PPE including face masks and canisters. The clinic also has oxygen, resuscitators, water, and two antidote kits (Cyanokit) which can only be administered by the doctors at the clinic.

The operation inspects its first aid equipment on a monthly basis to assure that it is available when needed and replaced on a schedule that assures they will be effective when required. The checklist includes both the Clinic emergency equipment as well as for the Plant Emergency Cabin and the equipment on top of the CIL.

The operation has developed specific written emergency response plans and procedures to respond to all types of cyanide exposures including the following:

*SP ER02 Emergency Cyanide Incident Procedure rev 26, 11 June 2024.*

- Section 11.0 Cyanide Exposure Treatments states that only a trained medical doctor may give the cyanide antidote.
- Section 12.0 Medical Evacuation provides details of when a patient should be medically evacuated.

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The operation has its own on-site capability to provide first aid and medical assistance to workers exposed to cyanide.

The operation has an on-site clinic run by Euracare Medical Centre, which is approximately 500 m from the Plant entrance and is open 24 hours a day. The Clinic is staffed by 2 Doctors, and 8 nurses (operating on a shift basis, a Health Assistant and an Admin Assistant). The clinic is equipped to manage patients with cyanide exposure in the short term. If treatment is required in the longer term the patient will be transferred to the on-site hospital at Tarkwa mine one hour away, also operated by Euracare Medical Centre. If necessary and decided by the mine management the patient will be medically evacuated to an appropriate facility in Accra.

The operation has developed procedures to transport workers exposed to cyanide to locally available qualified off-site medical facilities, which includes the following. The procedure detailed in the Emergency Call out Procedure as part of the *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*.

Any exposed workers will be transported to the on-site clinic next to the Plant. If subsequently they require specialist treatment, they will be medically evacuated to the hospital at Tarkwa or if necessary a hospital in Accra, Ghana.

The operation has informed the on-site clinic of the potential need to treat patients for cyanide exposure, and the operation is assured that the medical facility has adequate, qualified staff, equipment and expertise to respond to cyanide exposures.

The clinic was recently involved in a full cyanide exposure drill on 23 March 2023. The mine provides cyanide awareness training to the medical staff. The Protocol for Treatment with Cyanokit– Cyanide Poisoning included the following information:

- Health Affects;
- Routes of Exposure;
- Symptoms;
- Rescue action by fellow workers;
- First Aid management of CN Poisoning;
- Medical treatment at Emergency Room;
- Cyanide Antidotes; and
- Work Safety.

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## 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.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 7.1**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

The operation is in full compliance with Standard of Practice 7.1; prepare detailed emergency response plans for potential cyanide releases. The operation developed Emergency Response Plans to address potential accidental releases of cyanide and cyanide exposure incidents. These include the following.

The operation developed an Emergency Response Plan to address potential accidental releases of cyanide and cyanide exposure incidents.

There is a Plant wide Plan

*Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021.*

In addition, there is a specific cyanide related procedure

*SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure that considers the following potential failure scenarios appropriate for its site-specific environmental and operating circumstances.*

- a) Section 7.2.1 Catastrophic release of hydrogen cyanide from the storage or process facilities.
- b) Section 7.2.2 Transportation incidents. In addition, the operation has a copy of the *Movis Logistics Limited Emergency Response Plan- Sodim Cyanide Transport 18 May 2022* to ensure co-ordination of any emergency response.
- c) Cyanide releases during unloading and mixing is addressed in Section 4.1.2 Wet Cyanide Spill and through the following procedures:
  - *MT 0012 Rev 1.0 K, 04 October 2022 - Procedure for handling wet cyanide spills.*

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- *MT 0010 Rev 1.0 L, 11 October 2023 - Procedure for handling dry sodium cyanide spill (Spilt Bag).*
  - *MT 0011 Rev 1.0 J, 21 April 2023 - Procedure for handling dry sodium cyanide spill (Sea Container).*
- d) Section 7.2.3 Hydrogen cyanide release during fires and explosions and through the following procedure:
- *SOP MT0175 1.0 I 18 05 2023 Procedure for Controlling a Cyanide Fire.*
- e) Section 7.2.1. includes the release during unloading, mixing, pipe valve, and tank ruptures. Section 4.1.2 Wet Cyanide Spill (this specifically refers to checking that pumps and valves have been isolated) and through the following procedures:
- *SOP MT0014 1.0 K 20 04 2023 Procedure for Management of Sodium Cyanide Leakage or Pipe Rupture*
  - *SOP MT0176 1.0 I 22 04 2023 Procedure for containment of cyanide spillage from tailings lines.*
- f) Section 7.2.4 Cyanide release during overtopping of ponds, tailings impoundments and uncontrolled seepage.
- g) Section 7.2.5 Cyanide release during power outages and pump failures. When power ceases the Tailings Tank will overflow due to gravity from CIL Tank 8 however this will be captured in the bunded area for the Tailings Tank.
- h) Section 7.2.4 Cyanide release during overtopping of ponds, tailings impoundments and uncontrolled seepage.
- i) SP MT0018 Procedure for Process Water Pond Detoxification, 1.0K, 25 August 2023 addresses the potential detoxification process that is implemented if the Detox pond is full before it overflows into the adjacent containment area within the mine area. This has not occurred since the previous recertification audit. There is no other cyanide treatment, destruction or recovery system on site.
- j) Section 6.2 Dam break and Embankment Failures. – Section 6.2.6 Emergency Procedure for Dam break and embankment failures and through the following plan:
- *Updated Emergency Response Plan – FETSF Stage 4, 19 March 2024, Knight Piesold.*

Planning for response to transportation-related emergencies has considered the transportation route, physical and chemical form of the cyanide, method of transport, the condition of the road or railway, and the design of the transport vehicle.

Transport related emergencies outside the mine are the responsibility of Movis as the company that currently transports the solid cyanide to the mine. The transportation companies have emergency response plans and route risk assessments as part of the International Cyanide Management Code (ICMC) certification. These have considered the transportation route, physical and chemical form of the cyanide, method of transport (e.g.,

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rail, truck), the condition of the road or railway, and the design of the transport vehicle. The following procedures are available.

- *SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure* includes a requirement to provide aid in the event of an off-site incident – Section 5. Off Site Incident.
- *Movis Logistics Limited Emergency Response Plan- Sodium Cyanide Transport 18 May 2022.*
- *Movis Route Risk Assessment – TEMA Port to Goldfields Damang, 18 June 2023, rev 002, Section 1.1.* states that the risks have taken into account transportation route, physical and chemical form of the cyanide, method of transport.

The emergency response plans include the following.

- a) Specific response actions, as appropriate for the anticipated emergency situations, such as clearing site personnel and potentially affected communities from the area of exposure are detailed in *SOP MT0229 1.0E 11 10 2022 Procedure for evacuation in cases of High HCN Gas Detection*. The Procedure stipulates the following alarm levels to evacuate all affected personnel:
  - 4.7 ppm – high alarm; and
  - 10.0 ppm – high high alarm.

Evacuation is undertaken when the high high alarm sounds.

- b) Use of cyanide antidotes and first aid measures for cyanide exposure.

*SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure – Section 12 Cyanide Exposure Treatments, General Safety Precautions, Treatment for Cyanide Inhalation, Treatment for Cyanide Swallowing, Cyanide absorbed through skin.*

- c) Control of releases at their source, and
- d) containment, assessment, mitigation and future prevention of releases.

*SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure Section 7.1.2 for catastrophic releases includes details for control of releases at their source, containment, detoxification and clean up as per the clean-up procedures. Emergency incidents are investigated through the incident investigation procedure *SP 10 Procedure for Incident Management rev 15, 27 June 2023* with actions identified by the investigation to mitigate and prevent future releases.*

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

☒ in full compliance with

**The operation is**

☐ in substantial compliance with

**Standard of Practice 7.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation has involved its workforce and stakeholders in the cyanide emergency response planning. The draft Emergency Response Plan is circulated to the various HOD's for comment. HOD's will obtain comments from their respective departments.

The workforce is included in the emergency response planning process through the following: induction and refresher training where they are trained on the use of the emergency response process; through the monthly health and safety meetings; and through the testing of the Emergency Responses by undertaking the Mock Emergency Drills.

Consultative meetings are held with local communities including chiefs, government officials, district assembly persons, and District Environmental Health Officers, etc. This is called the Damang Mine Community Consultative Committee (DMCCC). These meetings are undertaken quarterly however only one meeting in the year has a presentation regarding cyanide awareness. These meetings provide the opportunity for community representatives to communicate issues of concern, these are detailed in the minutes.

Communities are made aware of the nature of their risks associated with accidental cyanide releases, and consulted with them through the DMCCC meetings.

No local response agency is involved in cyanide emergencies or play a role in the cyanide emergency response planning process as the ERT, Hazchem Team, and medical clinic are situated inside the mine security area. The on-site clinic, ERT and Hazchem Team are involved in the full cycle cyanide mock drills and de-briefing sessions following the drills. Local response agencies do not have the training or equipment to assist in the event of an emergency.

The *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*. states that mock drills should be undertaken bi-annually. This covers mock drills for all types of incidents not just cyanide but does include one cyanide drill per annum within the Plant.

Consultation with external stakeholders is not required with regards to the Emergency Response Plan as they are not involved in emergency events. Consultation with local communities is maintained through the DMCCC meetings detailed above.

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

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 7.3**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The cyanide related elements of the Emergency Response Plan include the following.

- a) Designate primary and alternate emergency response co-ordinators who have explicit authority to commit the resources necessary to implement the Plan. The overall Primary Response Coordinator is the General Manager who has the authority to commit resources necessary to implement the Emergency Response Plan. The alternate co-ordinate will be whoever is acting General Manager in the absence of the General Manager. The Emergency Response Team's (ERT) roles and response actions are detailed the Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021 Section 6.
- b) Identify Emergency Response Teams. The details of the ERT are put on the notice boards around the Plant as observed by the auditors. Details of the Mine Wide Hazchem Team are kept by security control who are notified in the event of an emergency. Security control contact the ERT. A list of the ERT contact numbers were observed by the auditors.
- c) Require appropriate training for emergency responders. The ERT in the Plant have additional training compared to the normal plant worker including; managing incidents, how to fight fires, emergency procedures and advanced first aid. The mine wide Hazchem Team also undertake additional training. The auditors observed the Occupational Health and Safety (OHS) Emergency Response Training Matrix 2024.
- d) Include call-out procedures and 24-hour contact information for the co-ordinators and team members. The details of the ERT are put on the notice boards around the Plant as observed by the auditors. Details of the Mine Wide Hazchem Team are kept by security control who are notified in the event of an emergency. Security control contact the ERT. A list of the ERT contact numbers were observed by the auditors.

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- e) Specify the duties and responsibilities of the co-ordinators and team members. This is designated within the roles and responsibilities of *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*.
- f) List emergency response equipment, including personal protection gear, available on-site. This is included on the Emergency Equipment checklist. The auditors observed the Cyanide Emergency Equipment Checklist for 08 July 2022, 11 March 2023, and 19 February 2024.
- g) Include procedures to inspect emergency response equipment to ensure its availability. The operation inspects its first aid equipment on a monthly basis to assure that it is available when needed and replaced on a schedule that assures they will be effective when required. The checklist includes both the Clinic emergency equipment checks as well as for the Plant Emergency Cabin and the equipment on top of the CIL. The auditors observed the Cyanide Emergency Equipment Checklist for 08 July 2022, 11 March 2023, and 19 February 2024.
- h) Describe the role of external responders, medical facilities and communities in the emergency response procedures. No local response agency is involved in cyanide emergencies or play a role in the cyanide emergency response process as the ERT. Security Control are notified in the event of an emergency who then inform the ERT in the Plant and mine wide as appropriate together with the site clinic and relevant response co-ordinators, e.g. General Manager and Metallurgical Manager.

There are no external entities with roles and responsibilities identified in the Emergency Response Plan and therefore it is not necessary to ensure they are aware of roles and are not included in mock drills or implementation exercises as they do not have the required training, equipment or expertise to address the relevant emergencies on the mine or in the Plant.

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**Standard of practice 7.4: Develop procedure for internal and external emergency notification and reporting.**

☒ in full compliance with

**The operation is**

☐ in substantial compliance with **Standard of Practice 7.4**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The Emergency Response Plan includes procedures and contact information for notifying management, regulatory agencies, external response providers and medical facilities of the cyanide emergency including the following.

*Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021* lists contact information for the various individuals and departments required as part of the emergency response including the on-site clinic. Contact details for regulatory agencies and other external contacts are provided in an excel sheet on the intranet.

*Procedure 6, Procedure for External Communication, rev.2.4, – Section 4.6 External Communication on Emergencies and Significant Aspects* states that communication will only be undertaken to regulatory authorities, in response to specific requests from regulatory authorities or corporate management, or a request from stakeholders where this has been deemed to be appropriate.

The Plan includes procedures and contact information for notifying potentially affected communities of the cyanide related incident and any necessary response measures and for communication with the media.

*Procedure 06, Procedure for External Environmental Communication, rev 2.4* Section 4.6 b states that “In the event of incidents involving hazardous materials, such as cyanide, petroleum products or other chemicals that could result in injuries or potential damage to workers, the environment or local people, the company will make factual information publicly available.”

Section 4.5 c states that “The General Manager will, where appropriate, gain prior corporate approval before issuing any release to the media.

*Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021* states that in the event of a major cyanide event the Community Affairs Manager will inform community leaders.

*SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure, Section 7.3* states the Operations Manager will ensure that the ICMI are informed in the event of a

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significant cyanide incident. There have been no significant cyanide incidents since the previous recertification audit

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**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.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 7.5**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The spill procedures referred to in the emergency response plans describe specific remediation measures as appropriate for the likely cyanide release scenarios as detailed below.

a) Recovery or neutralisation of solutions or solids.

The relevant procedures are:

- MT 0010 Rev 1.0 L, 11 October 2023 - Procedure for handling dry sodium cyanide spill (Spilt Bag)
- MT 0011 Rev 1.0 J, 21 April 2023 - Procedure for handling dry sodium cyanide spill (Sea Container)
- MT 0012 Rev 1.0 K, 04 October 2022 - Procedure for handling wet cyanide spills.

b) Decontamination of soils or other contaminated media.

- The procedures state that following the clean-up of contaminated material, ferrous sulphate is to be used for decontamination. Ferrous sulphate is kept and used in its solid form and stored with the other emergency response equipment. Spillage on to soil is unlikely as the Plant is covered in concrete and the tailing pipeline is in an HDPE lined trench. Therefore, it is not considered necessary to define the final concentration allowed in residual soil.

c) Management and/or disposal of spill clean-up debris.

- MT 0012 Rev 1.0 K, 04 October 2022 - Procedure for handling wet cyanide spills states that after the decontamination of the area the contaminated material is disposed of at the TSF or if appropriate to Feeder 004.

d) Provision of an alternate drinking water supply.

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- Provision of alternate drinking water supply is not required as local surface water is not in proximity to where process solution strength cyanide solution is used, solid cyanide is stored, or the TSF is located.

The Plan prohibits the use of chemicals such as sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water. *Procedure ML09 rev 2.7 Procedure for Management of Cyanide Contaminated Materials*, Section 4.4 Cyanide Contaminated Water states that "If the water is not completely contained and completely under control, detoxification with chemicals will not be attempted."

The Plan address the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and include sampling methodologies, parameters and, where practical, possible sampling locations. All environmental monitoring is carried out in accordance with The Environmental Monitoring Plan and sampling procedures

A map shows the monitoring sampling locations for surface and groundwater, which would be used as possible sampling locations in the event of a release.

*Proc EN 11 Procedure for Surface Water Monitoring Rev 2.3*, Section 4.0 Procedure and Responsibilities states in clause (c)" in the event of a spill or environmental emergency a water quality sampling and analysis program will be set up to investigate the cause of the incident and/or to monitor the extent and degree of environmental contamination or impact".. This procedure includes sampling methodologies and parameters.

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

☒ in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 7.6**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

The operation reviews and evaluates the cyanide related elements of its Emergency Response Plan for adequacy on a regular basis. *SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure*, Section 13 states "This procedure will be reviewed at least annually, but also following incident, emergency drills or when new information regarding cyanide becomes available".

*Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*, Section 4 Objective of the Emergency Preparedness and Response Plan includes "to ensure that the Emergency Response Plan is tested through emergency drills and scenarios and adjusted accordingly" and "to continuously review and improve the Emergency Plan in line with recommendations arising from debriefs." It can be seen that this Plan is updated regularly as it is on revision 33.

Provisions are in place to evaluate and revise the plans, as necessary, following mock drills and following an actual cyanide-related emergency requiring its implementation.

Mock emergency drills are conducted periodically to test response procedures for various cyanide exposure scenarios, and lessons learned from the drills are incorporated into response planning. The mock drills undertaken in 2023 and 2024 were not tabletop exercises and involved all of the personnel that may be expected to respond to the type of cyanide incident simulated.

The *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021*. states that mock drills should be undertaken bi-annually. This covers mock drills for all types of incidents not just cyanide but does include one cyanide drill per annum within the Plant.

There have been no cyanide related emergencies within the last three years or cause to update the plans in response to a finding from the mock drills.

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## 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.**

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 8.1

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

All personnel on the mine are trained in cyanide hazard recognition through the initial induction for the mine. More detailed cyanide training is provided for those individuals who are likely to encounter cyanide. All employees or contractors working inside the Plant or at the TSF need to attend the Cyanide Awareness Training Module.

The module covers the following sections:

- ICMI;
- Description and use of cyanide;
- Health Hazards;
- Symptoms of Cyanide Poisoning;
- PPE's and Safety Signage for Cyanide;
- Cyanide Handling Procedures;
- Cyanide Hotspots;
- Emergency Response including Decontamination; and
- First Aid and Medical Treatment in the Event of Cyanide Exposure.

The Cyanide Awareness module is presented annually during refresher training. Employees working in cyanide areas need to achieve a 100% pass rate.

The auditors observed the Training Matrix for the Metallurgy Department - 2024 Training Matrix. The matrix indicates the names and required training as well as the status of completion for each employee working in the Metallurgical Department.

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All personnel on the mine are trained in cyanide hazard recognition through the initial induction for the mine, which is refreshed annually. The Cyanide Awareness Training Module, for Plant and TSF employees and contractors is also refreshed annually.

It was observed that cyanide training records are kept electronically as well as hard copies in the employee files. Cyanide training records are retained for at least 3 years for contractors and permanently for employees.

Training records include the tests to determine competency.

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**Standard of practice 8.2: Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.**

☒ in full compliance with

**The operation is**

☐ in substantial compliance with **Standard of Practice 8.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

The operation is in full compliance with 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.

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

The ICMC Coordinator stated that employees rotate between sections in the Plant. Before an employee starts working in a new section, they are trained on the relevant operational and cyanide related procedures.

The training elements/procedures for each job are identified for each area/ team on the training matrix. The individuals for that particular team/ area are trained in the relevant procedures in addition to the general and area specific inductions and refresher training. Training has to be completed for the next level before an individual is promoted

It was observed that the training elements necessary for each job involving cyanide management are identified in the training matrix and that all modules required per category or worker are included in the training materials.

The Metallurgy (CIL) Department Skill Development Program 2024 was observed by the auditors. This lists the individual development needs for each worker level within the Metallurgical Department. All levels must attend the Cyanide Awareness training.

Task training related to cyanide management activities is provided by an appropriately qualified person. The training is provided by Gladys Obotey Sarkpoh, General Plant Supervisor/ ICMC Coordinator, previously Plant Supervisor and before that Plant Metallurgist has a BSc. in Mineral Engineering July 2009, and MSc. Engineering Project Management, March 2021.

Marian Anomel also undertakes training for the Plant. She has been trained by Gladys to provide the training and has over 13 years experience of working on mines.

Refresher training on cyanide management is provided to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Cyanide awareness refresher training is conducted annually.

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The training on the content of the procedures is presented by the ICMC Coordinator. The training is presented annually.

The effectiveness of the cyanide awareness induction training is evaluated by a written test with a 100% pass rate required. The refresher training is also evaluated by Planned Task Observations (PTOs) that are conducted after the appropriate training has been received on the relevant procedures.

Training records observed by the auditors included the tests to determine competency

The ICMC Coordinator stated that planned task observations are performed on all relevant procedures annually to evaluate the effectiveness in the training of the various procedures.

Records are retained throughout an individual's employment documenting the training they have received and including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials. For Contractors the records are only retained for 3 years.

These training records include the name of the employee, the name of the trainer, the date of the training, the topics covered and how the employee demonstrated an understanding of the training materials.

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**Standard of practice 8.3: Train appropriate workers and personnel to respond to worker exposure and environmental releases of cyanide.**

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 8.3**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

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

All employees or contractors working inside the Plant or at the TSF need to attend the Cyanide Awareness Training Module.

The module covers the following sections:

- ICMI;
- Description and use of cyanide;
- Health Hazards;
- Symptoms of Cyanide Poisoning;
- PPE's and Safety Signage for Cyanide;
- Cyanide Handling Procedures;
- Cyanide Hotspots;
- Emergency Response including Decontamination; and
- First Aid and Medical Treatment in the Event of Cyanide Exposure.

This training included what to do in the event of a cyanide emergency, including a spill.

The auditors observed the Training Matrix for the Metallurgy Department - 2024 Training Matrix. The matrix indicates the names and required training as well as status of completion for each employee working in the Metallurgical Department.

Emergency Response Coordinators and members of the Plant Emergency Response Team and mine wide Hazchem Team are trained in the procedures included in the Emergency Response Plan regarding cyanide, including the use of necessary response equipment and the following procedures.

- *SP ER 2 rev. 26 dated 11 June 2024 - Emergency Cyanide Incident Procedure.*
- *Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021.*

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The ERT in the Plant have additional training compared to the normal plant worker including; managing incidents, how to fight fires, and advanced first aid. The mine wide Hazchem Team also undertake additional training in addition to that required by the Plant ERT. The auditors observed the OHS Emergency Response Training Matrix 2024 detailing the additional training required.

The community, local responders, and off-site medical providers do not form part of the Emergency Response Plan.

On-site emergency responders are familiar with those elements of the Emergency Response Plan related to cyanide through the relevant training and through participation in the mock drills.

Refresher training for ERT members and other Plant employees with regards to response to cyanide exposures and releases is undertaken on an annual basis as part of the Cyanide Awareness Module and through additional training for the ERT.

The Cyanide Awareness module is presented annually during refresher training. Employees working in cyanide areas need to achieve a 100% pass rate.

Records are retained documenting the cyanide emergency response training, including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

Records are retained for at least 3 years for contractors and for the duration of employment for permanent employees. The records include the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

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## Principle 9 – Dialogue and Disclosure

### Engage in Public Consultation and Disclosure.

**Standard of practice 9.1: Promote dialogue with stakeholders regarding cyanide management and responsibility address identified concerns.**

☒ in full compliance with

**The operation is**

☐ in substantial compliance with **Standard of Practice 9.1**

☐ not in compliance with

#### **Summarise the basis for the findings/deficiencies identified.**

The operation is in full compliance with Standard of Practice 9.1; provide stakeholders with the opportunity to communicate issues of concern.

The operation provides stakeholders with information on its cyanide management practices and engages with them regarding their concerns.

Consultative meetings are held with local communities including chiefs, government officials, district assembly persons, and District Environmental Health Officers, etc. This is called the Damang Mine Community Consultative Committee (DMCCC).

These meetings are undertaken quarterly however only one meeting in the year has a presentation regarding cyanide awareness. These meetings provide the opportunity for community representatives to communicate issues of concern, these are detailed in the minutes.

Feedback sessions are undertaken in communities surrounding the mine following the DMCCC meeting in order to inform the communities of any decisions undertaken and for the communities to comment.

In addition, a tour of the TSF is undertaken on an annual basis with local communities attending to inform them of the risks associated with the TSF.

Once every three years the mine holds an open house for communities, government officials, and any other interested stakeholders to describe and show the operations of the mine, including the Plant.

The Damang Mine Grievance Mechanism procedure provides a mechanism for the host communities and interested parties to raise complaints and grievances against Damang Mine, whilst allowing Damang Mine the opportunity to respond and resolve the issues.

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A Community Affairs Office is located at the entrance to the Mine. Any stakeholder can go to the office to raise a grievance on the Grievance Form. The grievance is recorded, investigated and feedback is provided to the complainant. Thereafter the complaint is closed.

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

☒ in full compliance with

**The operation is** ☐ in substantial compliance with **Standard of Practice 9.2**

☐ not in compliance with

**Summarise the basis for the findings/deficiencies identified.**

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

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

A hard copy of the presentation that was given to the communities and the DMCCC is held by Community Affairs Department and is available on request to any member of the community. The presentation in English and the local language was observed by the auditors.

The operation has disseminated information on cyanide in verbal form where a significant percentage of the local population is illiterate. The presentations given at the meetings detailed in 9.1 were given verbally in the local language of Twi to allow for any persons who were illiterate.

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

- Cyanide exposure resulting in hospitalisation or fatality.
- Cyanide releases off the mine site requiring response or remediation.
- Cyanide releases on or off the mine site resulting in significant adverse effects to health or the environment.
- Cyanide releases on or off the mine site requiring reporting under applicable regulations.
- Releases that are or that cause applicable limits for cyanide to be exceeded.

No cyanide related incidents have occurred since the last recertification audit.

*Procedure 06, Procedure for External Environmental Communication, rev 2.4* Section 4.6 b states that "In the event of incidents involving hazardous materials, such as cyanide, petroleum products or other chemicals that could result in injuries or potential damage to workers, the environment or local people, the company will make factual information publicly available."

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Section 4.5 c states that “The General Manager will, where appropriate, gain prior corporate approval before issuing any release to the media.

*Procedure for Emergency Preparedness and Response SP08 Rev. 33, dated 22 January 2021* states that in the event of a major cyanide event the Community Affairs Manager will inform community leaders.

*Procedure EN 05 A01, rev 2.0, Procedure for Stakeholder Engagement:* states that Damang has identified effective engagement with stakeholders as a way of establishing and nurturing a congenial atmosphere for its operations.

It is mandatory by Ghanaian law to report all incidents meeting the requirements of the Minerals Commission as detailed in the Minerals and Mining (Health Safety and Technical) regulations 2012, which include those listed above. The operation demonstrated to the auditors that there is a Ghanaian Chamber of Mines WhatsApp group, where information regarding incidents reported to the Chamber of Mines is disseminated i.e. including mines and public agencies.

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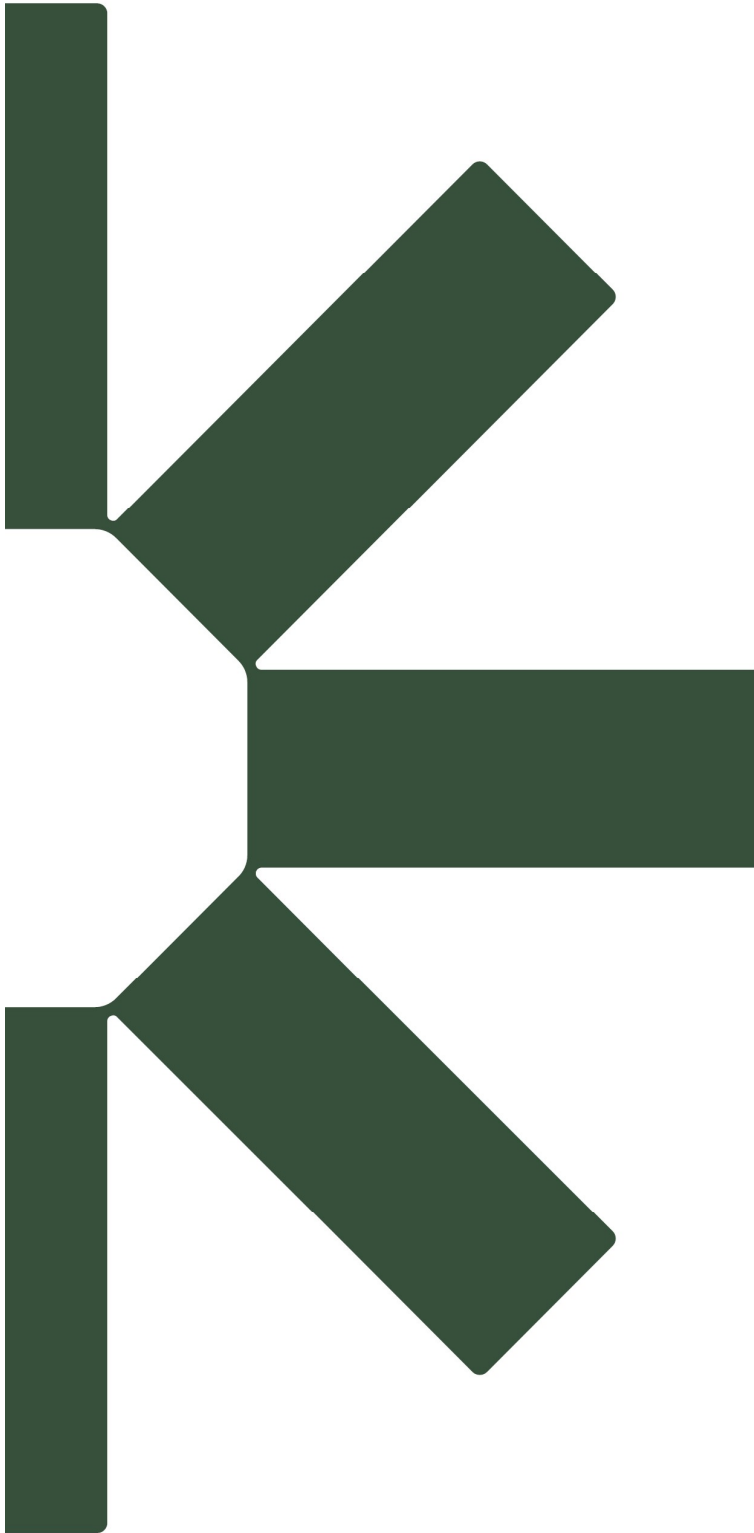
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