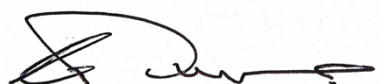


**INTERNATIONAL CYANIDE MANAGEMENT
INSTITUTE**

**Cyanide Production
Summary Audit Report
(Repackaging Plant # 2,
Warehouse and
Incinerators)**

21, 22 and 23 April 2021

**For The
International Cyanide Management Code**



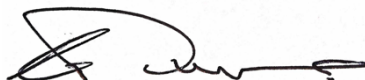
Name of Operation: Vehrad Transport & Haulage
Name of Operation Owner: Vehrad Transport & Haulage
Name of Operation Operator: Vehrad Transport & Haulage
Name of Responsible Manager: Mr. Nazih Hussein, Operations Director
Address: Plot 16/17, Heavy Industrial Area, Tema
Country: Ghana
Telephone: 00233-303-205521
Fax: 00233-303-205524
E-Mail: nazih.husseini@vehradtransport.com

Location detail and description of operation

The Vehrad Cyanide Screw Feed Repackaging Plant (Sparge Plant #2) is located at plot #A/46/30, Tema Heavy Industrial Area, a Vehrad subsidiary site within 5 kilometres (kms) of the main Vehrad yard. The bonded cyanide storage warehouse is located at Plot 16/17, Heavy Industrial Area, Tema, Ghana, which is the main Vehrad Transport & Haulage administration, storage and transport site.

The cyanide repackaging facility (Sparge Plant #2) also contains a Ghana Environmental Protection Agency-approved, dual incinerator complex used to incinerate cyanide packaging. The site is used for the incineration of sodium cyanide packaging from used packaging generated at both the #1 and #2 sites. The facility has 24-hour security presence and coverage.

This facility supports the work of the Sparge # 1 cyanide repackaging facility located at the main Vehrad site. Consignors deliver to, or Vehrad Transport and Haulage collect and deliver, loaded shipping containers to the main Vehrad site where they are de-stuffed of boxes containing cyanide briquettes. These boxes are stored in the Customs bonded Cyanide Warehouse, whilst they are awaiting repackaging into sparge (ISO) tanks at either the #1 or #2 repackaging plants or for direct onward transport in sealed Vehrad owned containers to mine sites. Each consignor's or mine's cyanide boxes are stored separately in the warehouse and the ISO sparge tanks are filled in client specific batches.



In order to save on container demurrage and provide off-mine storage, all cyanide containers received from cyanide producers and consignors are de-stuffed and boxes are stored in a Customs-bonded warehouse solely containing cyanide boxes, whilst they await repackaging into sparge tanks, or re-stuffing into Vehrad owned containers. These are then transported by Vehrad Transport and Haulage to mine sites in West Africa.

All waste cyanide packaging (wooden boxes, plastics and polypropylene bags) is taken directly to the incinerator facility and disposed of.

Auditor's Finding

This operation is

- X in full compliance
- in substantial compliance
- not in compliance

with the International Cyanide Management Code.

This operation has not experienced compliance problems during the previous three-year audit cycle.

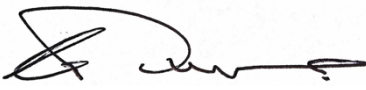
Audit Company: TRANSHEQ Consulting

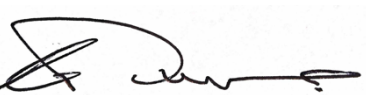
Audit Team Leader: Richard Durrant E-mail: richard@transheq.co.za
& Production Technical Auditor

Date of Audit: 21,22 & 23 April 2021

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

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

Vehrad Transport & Haulage		12 September 2021
_____ Name of Facility	_____ Signature of Lead Auditor and Production Technical Auditor	_____ Date

Vehrad Repackaging Plant #2		25 June 2021
Page 3 of 16		

1. OPERATIONS: Design, construct and operate cyanide production facilities to prevent release of cyanide.

Production Practice 1.1: Design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures.

X in full compliance with

The operation is in substantial compliance with Production Practice 1.1

not in compliance with

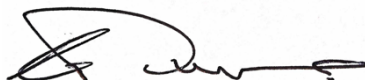
Summarize the basis for this Finding/Deficiencies Identified:

The design for the Bulk Bag Repacking, Cyanide Debagging and Tanker Loading facility was prepared by Kempe Engineering, Australia. Sample drawings for the design were sighted and signed off by Engineer Kempe. The Screw Conveyor Drawings were sampled and the steel complies with Australian Standards AS 1163, 1594, 3678 and 3679. The full drawings were audited during the initial certification audit.

A Design Calculations document prepared by Mabani Steel, based upon the design drawings was sighted, along with sample Mabani Steel drawings covering the Mezzanine Floor Plan (E05), and Anchor Bolt Plan (A01). The Design Engineer was aware that the facilities would be used with solid sodium cyanide briquettes and the design includes detailed material specifications for the various steel components of the construction.

Existing Incinerator

This incinerator was built from a standard Chinese design for incinerators. Design drawings for incinerator were sighted. As the drawings were annotated in Chinese, a local registered engineer, Engineer Amer Mikati (Ghana Registration No C1206, and Registered Eng. #6431, Member, Chartered Institute of Engineers), verified the drawings' details through sample measurements, visual inspection, thickness testing, an operational specifications audit and a materials specifications review. Furthermore, Engineer Amer Mikati of United Fabrication Limited (Ghana Registration No C1206, and Registered Eng#6431, Member, Chartered Institute of Engineers) has reviewed the drawings and structure and confirmed the "as-built" status of the incinerator and "fit-for-purpose" for incinerating cyanide packaging.



New Incinerator

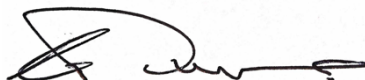
The new incinerator was designed and fabricated by Shandong Taixiang Environmental Protection Engineering Company, Weifang city, Shandong Province, Republic of China. The company is certified as compliant with ISO 9001:2015. (Sighted certificate expiring 13 March 2022.) The specifications and descriptions are noted in Chinese with limited translations. A Ghanaian registered Engineer, Amer Mikati (registration No 6431) confirmed QA/QC and that the incinerator was built, fit for purpose. (Letter ref 17-09-17092020-HA762 dated 17-09-2020 from United Fabrication Company and signed by Eng. Amer Mikati as fit for purpose for incinerating cyanide packaging.

Also reviewed in a previous audit was the design pack which included a bulk bag reprocessing conceptual flow diagram; a warehouse process flow diagram; a unit process diagram; a bulk bag re-processing process flow diagram; a fork lift transport of bulk bags schematic; the iso-tainer transport process flow diagram; and the incinerator process flow diagram. The on-site warehouse was modified to accommodate cyanide storage by the installation of ventilation fans, the sealing of floors, and the installation of a ramp, linked to the bunding and containment requirements. No changes to the design or operation have taken place since the last audit.

The Repackaging Facility equipment has 3 emergency stop buttons: - 2 at ground level, and one on top of the gantry. If power fails, the equipment will automatically shut down. Both incinerators have an emergency shutdown procedure in case of circumstances requiring this. The process is a batch feed process and emergency responses would be based upon the status of the incinerated batch and so feeding would stop until the problem has been corrected.

The Repackaging Plant is located on an impervious concrete base inside a building. The incinerators are located on an impervious concrete base and the route from the gate to the repackaging plant building and the area adjoining the incinerators is all concrete based.

The Cyanide Bonded Storage Warehouse has a designed depression acting as a bund and the floor is made of concrete and all cracks have been repaired. Spillages would also be cleaned in situ and there are only solids transferred from bags to the sparge tank. There are no solution pipelines or liquids in the repackaging facility. (Dry) Spills within the containment area will be cleaned up according to Spill Procedures. The incinerator has water cooled jackets around the chambers. Should these jackets lose liquid, the incinerator will automatically cut fuel supply to the burners to prevent damage to the chambers. There is a sump system in incinerator base to collect liquids from the cooling jackets.



Production Practice 1.2: Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

X in full compliance with

The operation is in substantial compliance with **Production Practice 1.2**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Operating procedures have been developed for Sparg#2 repackaging plant. The procedures cover pre, post and repacking operation, the cyanide repackaging plant and warehouse management, guidelines for vital components, inspections, a manual of authority, decontamination of equipment, the buddy system, a change management procedure and a process flow diagram. Procedure S8 is the procedure that covers the operation of the incinerators and the procedure to burn the cyanide packaging.

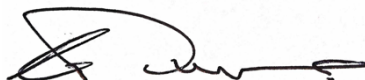
The procedures also include relevant pre-work inspections and appropriate PPE (Personal Protective Equipment) and abnormal situations such as overfilling, power outages, blockages, damage to bags and broken or damaged handles, residues in bag and hopper and dealing with other abnormal and emergency situations.

The Repackaging-Screw & Isotank Maintenance Plan describes the maintenance and inspections to be carried out monthly using detailed checklists. The Incinerator Maintenance Plan includes pre-start weekly, monthly, and yearly inspections. A Cyanide Repackaging Plant and Warehouse Storage Management procedure is in place to minimise cyanide gas generation. A separate plant inspection procedure and checklist includes specific details on equipment, pre-operational and operational activities. The storage warehouse inspection regime for the roof and ventilation equipment and condition of the concrete floor is also covered by a written procedure and inspection records are in place.

The site has 14 x portable, personal HCN gas monitors: 8 x Watchgas UNI MP 100 HCN 0-100 PPM, 2 x Gazomat GAZTOX HCN, 4 x ToxiRAE 11 HCN PGM-1170. Calibrated to measure 4.5 ppm at the first alarm. Second alarm is at 9.7 ppm. First alarm prompts investigation of cause, and second alarm prompts evacuation. Valid calibration certificates are in place

The repackaging facility process is a dry process. However, washings from the repackaging area will be flushed into the effluent gutter leading to the containment sump. If necessary, the sump will be neutralised with ferrous sulphate. The sump is emptied periodically by a professional waste disposal company (Bidi Group) who issue cleaning certificates (sighted).

In the case of the Storage Warehouse, small, dry spillages will be dealt with according to the ER(Emergency Response) Procedure - Don't dispose of waste or collected spill, make sure it is sent to mine usage. Plant Incident – Cyanide Spill – all gathered debris will be treated on site or be sent to the mine for treatment.



With respect to hydrogen cyanide gas management, in the repackaging facility, no cyanide is stored in the repackaging facility building but the building has been specifically modified to encourage adequate ventilation and air circulation. In the storage warehouse, two large scale extractor fans are installed in the back wall to ensure adequate air circulation in the building and there are gaps between the top of the walls and the roof. The main building doors will remain open during the repackaging. Both the repackaging facility and the storage warehouse have procedures and physical facilities to prevent moisture from affecting the solid cyanide during storage and processing. The storage warehouse is always locked and monitored by security guards and customs officers, as it is a bonded customs warehouse. The repackaging facility is an area within walls, within the main site and access is controlled by a security guard with no persons permitted in the facility without authorisation and appropriate PPE.

The repackaging facility has auto hoist level is pre-set and does not require calibrating or maintenance. Incinerators temperature monitors and probes are fail-safe (work or fail) with no maintenance necessary. Replaced on failure and using pre-start checks to monitor condition

No change management exercise required necessary recently in the screw sparge operation. Vehrad uses the ADKAR model – **A**wareness of the need for change, **D**esire to support and participate in the change, **K**nowledge of how to change, **A**bility to implement change, and **R**einforcement to sustain change. This will also be used to address any future changes. Management of Change Request and Approval Form – MOC No.3 is available should a management of change exercise be required. All changes are to be approved by the Health, Safety, Security and Environmental (HSSE) Manager and Deputy Managing Director or Managing Director.

Prior to repackaging, cyanide boxes are received from producer in sea containers and packed according to international specifications. Producer, consignor, and supply chain are all ICMI certified.

Production Practice 1.3: Inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

X in full compliance with

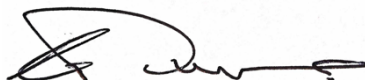
The operation is in substantial compliance with **Production Practice 1.3**

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

In the repackaging facility, inspections for the sparge tanks have been developed. There are no liquids in process other than occasional washings.

There are no pipes or valves involved in the process but inspection routines are in place for the hoppers, ISO tank valves, hatches and mechanisms, and related bag and box handling facilities in the repackaging plant. Inspections are undertaken pre-start, monthly and annually and before every repackaging exercise (sighted completed inspection sheets). The two facilities are inspected before operations commence and after



completion. Inspection documentation identifies all items to be observed, date of the inspection, the name of the inspector, and any observed deficiencies and corrective actions are documented and records retained.

In the auditor's opinion the inspection frequencies are sufficient as the repacking facility is not in continual use and the storage warehouse is only accessed when cyanide boxes are being moved into or out of the warehouse. The frequency of inspections would therefore assure that equipment is functioning within design parameters.

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

Production Practice 2.1: Develop and implement procedures to protect plant personnel from exposure to cyanide.

X in full compliance with

The operation is in substantial compliance with **Production Practice 2.1**

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

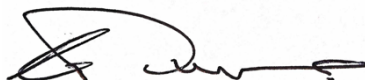
Operating procedures have been developed for Sparg#2 repackaging plant. The procedures cover pre, post and repacking operation, the cyanide repackaging plant and warehouse management, guidelines for vital components, inspections, a manual of authority, decontamination of equipment, the buddy system, a change management procedure and a process flow diagram. Procedure S8 is the procedure that covers the operation of the incinerators and the procedure to burn the cyanide packaging.

The procedures also include relevant pre-work inspections and appropriate PPE and abnormal situations such as overfilling, power outages, blockages, damage to bags and broken or damaged handles, residues in bag and hopper and dealing with other abnormal and emergency situations.

The Repackaging-Screw & Isotank Maintenance Plan describes the maintenance and inspections to be carried out monthly using detailed checklists. The Incinerator Maintenance Plan includes pre-start weekly, monthly, and yearly inspections. A Cyanide Repackaging Plant and Warehouse Storage Management procedure is in place to minimise cyanide gas generation. A separate plant inspection procedure and checklist includes specific details on equipment, pre-operational and operational activities. The storage warehouse inspection regime for the roof and ventilation equipment and condition of the concrete floor is also covered by a written procedure and inspection records are in place.

Existing policy covers consulting with the workforce through risk assessment, Planned Task Observations (PTO), change management, and health and safety meetings. No specific documented examples raised during this period.

The site has 14 x portable, personal HCN gas monitors: 8 x Watchgas UNI MP 100 HCN 0-100 PPM, 2 x Gazomat GAZTOX HCN, 4 x ToxiRAE 11 HCN PGM-1170. Calibrated to measure 4.5 ppm at the first alarm. Second alarm is at 9.7 ppm. First alarm prompts



investigation of cause, and second alarm prompts evacuation. Individual monitor calibration certificates together with a matrix including all monitors and expiry dates sighted. All monitors are submitted to one company based in the Netherlands, for calibration and maintenance. Monitors are recalibrated on a staggered basis to ensure that there are always calibrated monitors available.

Hot Spot surveys are carried out pre-operationally. Since the last certification audit, the highest level recorded was 7.00 ppm in the feeding hopper. Procedure as above allows HCN Hot Spot Reading levels >5ppm - PPE: Full Face Mask, Rubber gloves elbow length, Safety glass/face shield, Wellington boots, Chemical suit with hood will be worn. Immediate evacuation is required should levels reach 10ppm

The repackaging facility process is a dry process. However, washings from the repackaging area will be flushed into the effluent gutter leading to the containment sump. If necessary, the sump will be neutralised with ferrous sulphate. The sump is emptied periodically by a professional waste disposal company (Bidi Group) who issue cleaning certificates (sighted).

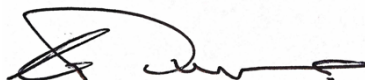
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With respect to hydrogen cyanide gas management in the repackaging facility, no cyanide is stored in the repackaging facility building but the building has been specifically modified to encourage adequate ventilation and air circulation. In the storage warehouse, large scale extractor fans are installed to ensure adequate air circulation in the building. Both the repackaging facility and the storage warehouse have procedures and physical facilities to prevent moisture from affecting the solid cyanide during storage and processing. The storage warehouse is always locked and monitored by security guards and customs officers, as it is a bonded customs warehouse. The repackaging facility is an area within walls, within the main site and access is controlled by a security guard with no persons permitted in the facility without authorisation and appropriate PPE.

A Change Management Plan is in place No change management exercise necessary to date in the screw sparge operation. Vehrad uses the ADKAR model – Awareness of the need for change, Desire to support and participate in the change, Knowledge of how to change, Ability to implement change, and Reinforcement to sustain change. This will also be used to address any future changes.

Full cover PPE is always used (full suit, gloves, rubber boots, full face mask and canister) during repackaging. There is no need for a clothing change policy as clothes do not come into contact with cyanide. Drivers and safety staff given medical examination and screening annually. Sighted examples of medical reports.

Signage confirmed during site inspection – PPE requirements, warning signs and appropriate prohibitions. No smoking, eating and drinking signs posted at entrance to site.



Production Practice 2.2: Develop and implement plans and procedures for rapid and effective response to cyanide exposure.

X in full compliance with

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

Summarize the basis for this Finding/Deficiencies Identified:

The Facility has its own Screw-Incinerator Emergency Response Plan to respond to cyanide exposures. A safety shower and eye wash are located outside the building housing the repackaging facility. Dry powder fire extinguishers are located inside the building. Fire extinguishers are checked during the monthly Emergency Response inspections. Safety showers are checked on the monthly maintenance checklist and plant inspection checklist. A potable water supply is readily available from Municipal supply. An Invacare Perfecto₂™ oxygen Concentrator, and two bottles of 15kg medical oxygen, with regulator and gauge and a one-way valve CPR resuscitator are available.

Emergency communication is via the mandown alarm and cell phones. Cyanide antidote is available on site for transport with the patient to Tema General hospital. Cyanide first aid equipment is inspected monthly.

Cyanide antidote, Cyano Kit (containing hydroxocobalamin), is stored in an airconditioned office at 25°C as per manufacturer's specifications. The HSSE Department manages a schedule for replacement of antidote from Belgium supplier. Monthly Equipment Inspection conducted in terms of procedure Emergency Response Equipment List.

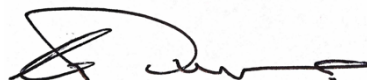
English is the working language of the site. SDS (Safety Data Sheets) are included in the Emergency Response Plan and procedures, a copy of which is located in the emergency cabin.

No tanks, pipes or solution involved in the process however widely located signage indicates presence of cyanide UN1689 Class 6 at Repacking Plant

Operators go through the shower and decontaminate their PPE. Visitors and contractors are not permitted in the area during repackaging. Seventeen safety officers are trained first-aiders are also available on site. First aiders are trained by Ghana Red Cross from 2017. HSE (Health, Safety and Environment) passports indicating First Aid Training were sighted. Ghana First Aid is competent in cyanide first aid training. The Ghana Red Cross has taken responsibility to collect and hospitalise potential cyanide patients.

2nd October 2019 Mock Drill at Sparge # 2 was conducted. Scenario – Cyanide briquette bag handling during sparging, testing management of abnormal bag activity in the hopper leading to potential cyanide exposure. Lessons learned were document and follow up training conducted.

Accident and Accident Reporting/ Investigation covering warehouse and No#1 and No #2 repackaging facilities were inspected. No incidents have occurred at No #1 or No #2 repackaging facilities and only incident was that of an Accident Report and Investigation of Pickup truck accident on 12 February 2018. Investigation concluded that cause was



driving too fast and lack of vigilance.

3. MONITORING: Ensure that process controls are protective of the environment.

Production Practice 3.1: Conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

X in full compliance with

The operation is in substantial compliance with **Production Practice 3.1**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

At the Sparg#2 repackaging facility, no water is used in the facilities that can escape from containment and it is in such small quantities that it cannot affect surface or ground water. Only storm water is discharged from the site. Any effluent that may be generated on site is delivered to a sump which is emptied by a specialist waste company. Testing in April 2021 at Sparge#2 sump shows results at or below limits of detection. Sighted test report results from independent laboratory Envaserv Research Consult dated 07-04-2021 showing Free and Weak Acid Dissociable (WAD) cyanide at <0.001mg/l

The repackaging facility has extraction fans with filtration equipment. The hopper is enclosed to ensure any dust is kept within the hopper and facility.

Annual Air Emission Testing carried out by Envaserv Research Consult on incinerator No 2 on 14-05-2020, 15-04-2019 and 23-04-2018 indicate results comply with Ghana EPA Standard Emission Limits (GS1236:2019).

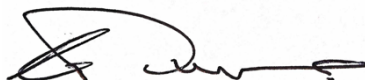
Monitoring is established, based upon the risks identified and the results noted. This is under continuous review by the site and the authorities and will be adjusted if changing circumstances arise. In the auditor's opinion the inspection frequencies are sufficient as the repacking facility is not in continual use and the storage warehouse is only accessed when cyanide boxes are being moved into our out of the warehouse.

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

Production Practice 4.1: Train employees to operate the plant in a manner that minimizes the potential for cyanide exposures and releases.

X in full compliance with

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



Workers at the # 2 repackaging facility and the warehouse have been trained in cyanide awareness and hazards and cyanide emergency response. Sighted up-to-date training "passport" records for Forklift Operator and for three Safety Officers. Sighted and reviewed Cyanide Awareness Training material. Training for the process is done using the procedures and is conducted on an "on the job" basis and PTOs (Planned Task Observations) are conducted to check compliance. Sighted PTOs checking against Repackaging-Screw Standard Operation Procedure

Workers at the # 2 repackaging facility and the warehouse have been trained in cyanide awareness and hazards and cyanide emergency response. Sighted up-to-date training "passport" records. Sighted and reviewed Cyanide Awareness Training material. Periodic refresher training is carried out. The same team of employees work at Sparge #2 and at Sparge #1 and the two operations would not be in operation at the same time.

PPE training is included in the Cyanide Awareness Training.

Training for the process and procedures is conducted on an "on the job" basis and PTOs (Planned Task Observations) are conducted to check compliance. Sighted and reviewed Cyanide Awareness Training material. Training for the process is done using the procedures and is conducted on an "on the job" basis and PTOs (Planned Task Observations) are conducted to check compliance. Sighted PTOs checking against Repackaging-Screw Standard Operation Procedure for four workers involved in the repacking process.

Training was conducted by John Esson (ex-AngloGold Ashanti Obuasi Cyanide Champion and trainer) – Post Graduate Diploma in Safety, Health & Environmental Management (2011) and Bassam El Soufi – HSSE Manager for 8 years, Pharmacological knowledge and experience.

No one is permitted to work in the repackaging plant until they have been appropriately trained.

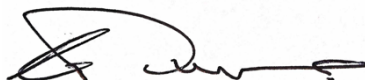
Production Practice 4.2: Train employees to respond to cyanide exposures and releases. Summarize the basis for this Finding/Deficiencies Identified:

X in full compliance with

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

Summarize the basis for this Finding/Deficiencies Identified:

Training was given to all operators in Sparge #2 and the warehouse on the Emergency Response Plan which covers both cyanide releases and worker exposures. On 2nd October 2019 there was a Mock Drill at Sparge #2. The scenario – cyanide briquette bag handling during sparging, testing management of abnormal bag activity in the hopper. Lessons learned are being addressed. The Exercise was repeated twice to explore solutions and improve responses. No changes to procedures were noted as being necessary. Counselling was undertaken to deal with speed of response.



A Desktop drill was carried out on 04-01-2021. The Scenario – HCN (Hydrogen Cyanide) poisoning during repackaging operation. Learning points – need more first aid refresher training, clarification of authority in emergency situations, additional cyanide awareness training.

Training records are kept in the form of individual “Passports to Operate” (kept on site, not with employees) as well as training course attendance lists, employees name and trainers are recorded. Records are kept permanently. Cyanide Training Evaluation form was sighted which is a True or False questionnaire consisting of 70 questions that must be answered by each employee to demonstrate understanding.

5. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities.

Production Practice 5.1: Prepare detailed emergency response plans for potential cyanide releases.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.1**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Emergency response is covered in Procedures - Repackaging Screw Standard Operation procedure and S2 Repackaging Screw-Incinerator Emergency Response Plan. These procedures include 27 possible scenarios that may require a response.

The scenarios considered in the Procedure include:- Catastrophic Release of HCN Gas; roof collapse and impact of rain on stored cyanide; release during loading whilst repackaging; overfilling of Isotank during filling; explosion/fire outbreak in the repackaging facility-no cyanide release; explosion/fire outbreak in the repackaging facility-cyanide release; explosion/fire outbreak in the incinerator facility; evacuation plans, and assessment, mitigation and investigation to prevent future releases.

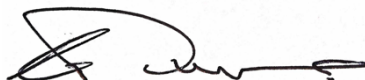
Production Practice 5.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.2**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Tema Heavy Industrial Area has created a Safety Task Force called Tema Industrial Area Task Force. The objective of the Task Force is to take a proactive approach in preventing any unforeseen events due to fire and property damage. This includes educating



stakeholders, peer-to-peer review audits, share industrial ideas and best practice, and support for each other in the event of an emergency, e.g., fire, spill etc.

The site engages with key stakeholders such as the Ghana EPA, Police, National Security, Ghana Red Cross, and Fire Service through continuous liaison. Confirmed in interviews with Ghana EPA and Ghana Red Cross.

Production Practice 5.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.3**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Emergency Response Plan – Roles and Responsibilities for Screw Emergency Response designates primary, secondary and alternate emergency response coordinators with explicit authority to commit the resources necessary to implement the Plan. All repackaging and warehouse operators are trained as emergency response team members and their training is included in the Training Matrix and the Training Plan. Duties and responsibilities and a list of emergency response equipment is also included in the Plan. Regular inspection of equipment is undertaken with checklists in place.

The site engages with key stakeholders such as the Ghana EPA, Police, National Security, Ghana Red Cross, and Fire Service through continuous liaison. Confirmed in interviews with the Ghana EPA and the Ghana Red Cross. Due to lack of resources the said key stakeholders do not regularly participate in mock drills.

There is no 24-hour sparging operations. Sparging only carried out during working hours. All key staff are available.

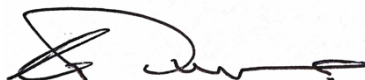
Production Practice 5.4: Develop procedures for internal and external emergency notification and reporting.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.4**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Emergency Response Plan – Roles and Responsibilities includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities for any emergency. Details are contained in S2 - Repackaging Screw-Incinerator Emergency Response Plan, section 4.3 – Roles and Responsibilities and includes procedures and contact information for notifying potentially affected



communities of the incident and/or response measures and for communication with the media.

Production Practice 5.5: Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.5**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Repackaging Screw Standard Operating Procedure – Decontamination Process describes specific, appropriate remediation measures, such as disposal and neutralization of solutions and solids, decontamination of soils and other contaminated media and management and disposal of spill clean-up debris. The Procedure prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water but this is unlikely as there is no surface water likely to be affected.

Solid cyanide spills are contained, collected and sent to mine site for processing, otherwise neutralize and dispose using ferrous sulphate (1 kg of ferrous sulphate per 0.9 kg of dry cyanide). Waste neutralized cyanide solutions must not be allowed to be discharged directly into sewers, drains or water courses. Therefore, it is collected in a nearby catch pit. Samples will be taken an analysis conducted by an independent laboratory. This waste will be collected by an approved waste disposal company for final disposal.

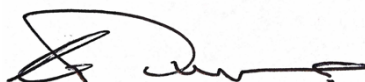
Production Practice 5.6: Periodically evaluate response procedures and capabilities and revise them as needed.

X in full compliance with

The operation is in substantial compliance with **Production Practice 5.6**
 not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Repackaging-Screw/Incinerator Emergency Response Plan specifies: The Emergency Response Plan needs to be reviewed yearly, after mock drills, when the ERP is activated and change or alteration of any routine operation or legislative changes. Last ERP review was conducted in December 2020 after a mock drill held on 30 November 2019. The next review to be undertaken is scheduled for December 2021.



Desktop drill was carried out on 04-01-2021 Scenario – HCN poisoning during repackaging operation. . Due to COVID-19 pandemic mock drill were put on hold and desk top exercised were conducted with limited personnel in attendance. All mock and desk top drills conducted will simulate HCN release or poisoning.
There have been no actual cyanide release emergencies experienced since the last audit.

End of Report

