
INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Code Compliance Audit Gold Mining Operations

Summary Recertification Audit Report

> Acacia Mining Buzwagi Gold Mine Tanzania

17th – 21st July 2017



Eagle Environmental Acacia Mining Buzwagi Gold Mine

Name of Operation: Buzwagi Gold Mine

Name of Operation Owner: Acacia Mining Plc, United Kingdom

Name of Operation Operator: Pangea Minerals Ltd

Name of Responsible Manager: Stewart Hamilton, General Manager

Address: Buzwagi Gold Mine.

P.O. Box 1081, Dar es Salaam

Kahama, Shinyanga Region, Tanzania

Country: Tanzania

Telephone: Mobile: +255 767012974

Fax: +255 (22) 216 4200

E-Mail: SHamilton@acaciamining.com

Detailed Background

Buzwagi Gold Mine is owned by Acacia Mining plc and located 6km east of Kahama town and North West of Tanzania in Shinyanga region, along the tarmac road From Isaka to Kahama town to Burundian borders.

The mine's 23 kilometres perimeter is fenced. Security towers are strategically based alongside the fence. A 75 ha plastic lined area, 1.5m cubic metre in depth, with a floating cover to prevent evaporation, was constructed to recover water and address the negative water balance of the site.

The Processing Plant was commissioned in the second quarter of 2009 and was designed to operate on: a feed tonnage of 4.3 million tonnes per annum; a feed grade of 2.0 g/t of gold and 0.15% copper; recovery of 92% of gold and 65% copper; and production of 250,000 ounces of gold and 4000 tonnes of copper per annum.

To achieve economic recovery of gold and meet operational responsibilities and obligations, the following steps were incorporated in the Buzwagi Processing Plant flow sheet.

1) Primary Crushing

This is a primary gyratory crusher (Metso 62-45) for SAG mill feed preparation. Ore from the ROM is reduced from 900 mm to 80% passing less than 125 mm by this unit.



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2) Grinding and Classification

This comprises a 6MW SAG Mill, 6MW Ball mill and a pebble crusher. Crushed ore is further reduced to less than 80 % passing 125 μ m, to liberate sulphides and other minerals, to permit recovery by downstream processes.

3) Gravity Concentration

Two 48" Knelsons and a single module Intensive Cyanidation Reactor are employed on this stage. Liberated gold particles are recovered by means of centrifugal gravity concentration, and dissolved into solution through the intensive cyanidation reactor. The solution is then passed through an electrowinning cell, where gold is plated on cathodes.

4) Flotation

Flotation practices are applied to treat the whole feed stream before the Carbon in Leach (CIL) process. This was employed to protect the CIL against copper, especially from CuCNsol. Copper species are responsible for elevated cyanide consumption and the Flotation circuit was incorporated on the flow sheet to address the economics and cyanide environmental impact in conjunction with revenue gained from the copper concentrate. Dried copper concentrate is shipped to an offsite smelter for further treatment.

5) Carbon In Leach, Elution and Electrowinning

Gold is dissolved from slurry into solution by capitation, and is adsorbed onto activated carbon in the CIL circuit. The loaded carbon is then transferred to the elution circuit, where the gold is dissolved back into solution. The solution, called pregnant solution, is then passed through the electrowinning cells, where gold is plated on the cathodes.

6) Smelting

Gold sludge is recovered from the electrowinning process and dried. The material is then melted in a furnace to separate the gold and the slag. Gold is poured into Doré bars and shipped to offsite refineries.

7) Cyanide Detoxification

The overall objective of the cyanide destruction plant is to ensure that the free cyanide and weak acid dissociable cyanide (CNWAD) levels discharged to tailings are below the maximum target required by the International Cyanide Management Code. The cyanide destruction reaction reduces CNWAD in the CIL discharge prior to tailings thickening from a nominal level of 450ppm to a few ppm. The process used to this affect is the International Nickel Company (INCO) process. The facility is designed for a maximum CNWAD feed level of 1,000ppm and discharge level of less than 50 ppm. Cyanide destruction is carried out using Sodium Metabisulphite (SMBS or $Na_2S_2O_5$) and oxygen. This process utilises SO_2 and oxygen in the presence of a soluble copper catalyst to oxidise cyanide to the less toxic compound cyanate (OCN-). The reaction is carried out at a pH of 8.0 to 9.0 in an agitated tank. The SMBS solution will provide the SO_2 for the reaction. There is sufficient copper in the feed ore to avoid the need to add copper sulphate as a catalyst. Oxygen is also required in the reaction and is supplied from a dedicated Pressure Swing Adsorption (PSA) Oxygen plant.

8) Tailing Disposal

Process Plant tailings are deposited on a fully lined Tailing Storage Facility (TSF) after cyanide destruction. Tailings are deposited as slurry at 50 – 60% and the water is decanted



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and pumped back to the Plant for recycling in the cyanide. The TSF is re-designed and raised in stages to cater for the tailing storage requirements.



Auditor's Finding

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X in full compliance		
☐ in substantial compliance *(s	eee below)	
□ not in compliance		
with the International Cyanide Manage	ement Code.	
This operation has experienced no corcycle.	mpliance problems during the pro	evious three year audi
Audit Company: Eagle Environmental		
Audit Team Leader: Arend Hoogervor	rst	
E-mail: arend@eagleenv.co.za	anger D	
Names and Signatures of Other Audito	rs:	
Name : Dawid M. L Viljoen Sign	nature Dat	e:
Dates of Audit: $17^{th} - 21^{st}$ July 2017		
I attest that I meet the criteria for knowledge, e Leader, established by the International Cyan meet the applicable criteria established by the Auditors.	nide Management Institute and that all	members of the audit tean
I attest that this Summary Audit Report accurate that the verification audit was conducted in a Management Code Verification Protocol for Chealth, safety and environmental audits.	professional manner in accordance wit	h the International Cyanide
Buzwagi Gold Mine		21/10/2017
<u>Facility</u> <u>S</u>	ignature of Lead Auditor	<u>Date</u>
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Buzwagi Mine Sign	ature of Lead Auditor	13 th October 2017

Auditor's Findings

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

Standard of Practice1.1: Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

X in full compliance with

The operation is	☐ in substantial compliance with Standard of Practice 1.1
	\Box not in compliance with

Basis for this Finding/Deficiencies Identified:

Buzwagi Gold Mine, under an umbrella contract for all Barrick Global Entities, obtains its cyanide from Orica, who produce and transport the product. Orica is a signatory to the ICMI Cyanide Code, and the contract requires that the producer must comply to the provisions of the Cyanide Code. Orica's Yarwun production facility is fully certified, as a cyanide production facility, under the ICMI code. Orica supplies solid sodium cyanide to Buzwagi Gold Mine and this was confirmed in a site inspection in the dry cyanide store.

2. TRANSPORTATION: Protect communities and the environment during cyanide transport.

Standard of Practice 2.1: Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

There is a formal contract between Orica and Barrick Global Entities (on behalf of Buzwagi Gold Mine) which covers the responsibilities and requirements for safety, security, unloading, emergency response (spills prevention and clean-up), route planning and risk assessments, community liaison, emergency response resource access and availability, training, and communication.

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Standard of Practice 2.2: Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

X in full compliance with

The operation is
☐ in substantial compliance with Standard of Practice 2.2
☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

Buzwagi Gold Mine currently uses Cyanide Code certified transporters and is therefore deemed to be Code compliant. The Australian Supply Chain covers the transportation of sodium cyanide solution and solid sodium cyanide from the manufacturing facility in Yarwun, Australia, by road and rail direct to its end point users within Australia and the Port of Brisbane and was fully recertified on 26th January 2015. Orica's transport supply chain for East Africa was published on the ICMI website on 5th September 2014. The East Africa Supply Chain covers the transportation of solid sodium cyanide by ship from the Port of Brisbane, Australia, to the ports of Mombasa, Kenya, and Dar es Salaam, Tanzania, via the Mediterranean Shipping Company or Maersk Shipping. Within Kenya and Tanzania, solid sodium cyanide is transported by road to end point users by Freight Forwarders Kenya and Freight Forwarders Tanzania. Freight Forwarders Tanzania Limited was certified on May 15, 2015.

3. HANDLING AND STORAGE: Protect workers and the environment during cyanide handling and storage.

Standard of Practice 3.1: Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

X in full compliance with

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

 \square not in compliance with

Basis for this Finding/Deficiencies Identified:

As per the original certification audit, the design company's Quality Assurance and Quality Control and drawing sign-off's verify that the cyanide storage and the cyanide solution mixing and storage were built as per the designs which are deemed accepted engineering practices for cyanide unloading, storing and mixing facilities. Pipe material specifications are according to the design company standard. The cyanide dry solid store and cyanide mixing and storage tanks, located away from people, offices and workshops, are situated inside the plant security



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area with an access controlled entrance. The shed is constructed with a roof and walls and the entrance has a hump to prevent water from entering the shed area from outside, with the floor area being depressed for containment. The cyanide store gates are triple locked, as additional security, with keys of the three separate locks held by Security, Warehouse and Process departments respectively. Only solid cyanide is stored in the solid cyanide store.

The cyanide mixing tank and cyanide storage tank are equipped with ultrasonic level sensors with level indication at the tanks and at the control room CITECT 7.1 system. The cyanide make-up process is fully automated with interlocks to the water valve, to the mixing tank, and to the cyanide transfer pump to the storage tank. High level alarms are set at H 78%, HH 95% for the mixing tanks, and H 90%, HH 92%, and HHH 95% for the storage tank. The physical level for the cyanide mixing and storage tank level indicators at 100% is 300mm below the overflow pipe. Secondary containments are built from concrete, with waterproof membrane on the compacted fill before the placement of the concrete, for all the slabs to provide a competent impervious barrier to leakages and provide adequate and appropriate containment for the tanks. The reagent strength cyanide tanks are placed in the same bund as the sodium hydroxide tank and next to the sodium meta bisulphite storage tanks, which are placed in a separate, bunded area. A double bund exists between the two bunds as additional protection in case of full bunds.

The cyanide store building is designed with ventilation in the form of wire gates, and open sides at the top of the walls of the shed as well as ventilation at the roof apex. The cyanide mixing tank is open at the bag breaking area, and the cyanide storage tank is equipped with a ventilation pipe.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

No liquid cyanide is delivered and all cyanide used is mixed from solid sodium cyanide briquettes. The procedures covering de-stuffing of containers, stacking of boxes (maximum of four high but three being advised for ease of issuing), mixing and disposal of packaging were sighted, reviewed and found to be effective and include pre-work inspections, required Personal Protective Equipment (PPE), and the use of a buddy.

The disposal of packaging procedure requires that the cyanide boxes and plastic bags are burnt inside the security fence of the plant in a designated box burning area. The mixing procedure spells out the sequence of tasks clearly to avoid spillages and releases and includes pre-work inspections, required PPE, and the use of a buddy.



In the mixing procedure, the bags must be agitated to shake free all of the cyanide briquettes and thereafter, a spray is used to wash off all the cyanide from the bag three times to ensure no cyanide is left in the bag.

The Offloading and Issuing Sodium Cyanide procedure requires that the container must be swept and cleaned and any clean up material disposed in a demarcated rubbish bin and all hazardous chemical stickers/ signage removed from the sea container.

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 utilizing contingency planning and inspection and preventive maintenance procedures.

X in full compliance with

The operation is	$\hfill \square$ in substantial compliance with Standard of Practice 4.1
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

There are 6 Cyanide specific supply chain procedures, 42 Process plant cyanide specific Safe Operating Procedures (SOPs), 11 Process Plant Engineering SOP's, and 6 cyanide-related Environmental procedures. The Tailings Storage Facility (TSF) is operated as per the Pangea Minerals Limited Buzwagi Project Tailings Storage Facility and Water Management Infrastructure Operations Manual. This manual covers the operation, monitoring, maintenance, and ongoing construction requirements of the following site infrastructure: Tailings Storage Facility (TSF), Water Storage Pond (WSP), Water Harvesting Area (WHA), Plant Site Water Pond (PSWP), Open Pit, Storm water diversion channels, and Site sediment control structures. The latest External Technical Audit of the TSF concluded, "...The tailings delivery system to the TSF is in good condition. The installed piped tailings distribution system is in a good condition, The TSF, WSP and WHA embankments appear in good condition with no stability issues noted. Construction of the facilities is generally progressing in accordance with the design intent, technical specification and adopted QA/QC procedures. Monitoring of the facilities is generally in accordance with the design intent...(sic)"

The TSF was designed to operate at WAD cyanide levels of below 50 mg/l. The Buzwagi Detoxification Process resulted from the need for major changes which had to be undertaken between the original plant design and on revised requirements resulting from sub-optimal plant performance and expert reviews. The final tailings thickener discharge criteria included the requirement to contain less than 20 ppm from a feed of between 205 and 450 ppm WAD cyanide. Detoxification optimisation, including optimisation of process parameters and maintenance, has been implemented since certification to maintain the WAD cyanide parameters at less than 50 mg/l.



There are a variety of operational inspections carried out covering Cyanide Mixing, the CIL, the Elution Circuit, Float, Detoxification, and the Grinding circuit. These inspections include detail on tanks, pumps, pipelines, flanges, and valves. These are augmented by monthly safety inspections. On the TSF, daily inspections include spigot discharge and decant water position, return water pipeline, embankments, geomembrane liner, pond levels, decant, spillway, and fauna deaths.

It was confirmed that operational inspection records were in place and work requests raised by operations were recorded with completion noted in the Pronto PMS. The PMS records include the date of the inspection, the name of the inspector, and any observed deficiencies. Deficiencies are repaired and documented or a new W/O generated to complete the work and any raised deficiencies.

The site continues to use a Barrick Corporate change management procedure which is functioning and change management exercises are signed off by Health, Safety and Environmental officials.

Throughout the site (including the TSF), preventative maintenance and inspections have been controlled by a software-based, Planned Maintenance System (PMS) called PRONTO. Key pumps, tanks, bunded areas, pipes and pipelines, and equipment were checked electronically and physically on the system and found to be systematically maintained through visual and mechanical checks, thickness tests and historical reviews. The frequencies are deemed to be sufficient to assure and document that they are functioning within design parameters.

Emergency power generation is in place, but is not required to prevent unintentional releases as the TSF freeboard is sufficient to contain the storm event in the decant pond if no power is available.

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

X in full compliance with

The operation is	☐ in substantial compliance with Standard of Practice 4.2
	\square not in compliance with
	□ not subject to

Basis for this Finding/Deficiencies Identified:

Mineralogy is monitored, particularly for copper values and the information is obtained from Geology meetings, thus giving pre-warning for change in ore to process plant. This information impacts on flotation parameters. The Mine uses blending to assist in managing process parameters, but flexibility is limited. The original ore characterisation tests done are still valid for low, medium and high-grade ore.

Bottle roll tests are conducted every 3 months. The tests include cyanide dosing. Grinding and flotation tests are also conducted to maximise copper mineral flotation and so reduce cyanide



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consumption and WAD cyanide formation in the feed to the Detox plant. The cyanide dosage rate of 350 g/t was confirmed in the tests.

A project was conducted to optimise copper float efficiency. The project resulted in changes to the float configuration and reagent dosing. Subsequently, the CMC project and use of an online analyser was implemented. The result is a significant improvement in copper recovery, and a reduction in cyanide usage and detoxification costs was observed. Graphs of increased copper recovery from 2014 to date illustrated the improvement. A reduction in cyanide consumption from 1.13 kg/t in 2014 to 0.5 kg/t, a 56% reduction, was noted. The optimisation also significantly reduced the WAD cyanide in the tails, as well as giving a significant reduction in the cost of detoxification of the tailings.

Cyanide is controlled using a TAC1000 controller and manual titration in the CIL no 1 and 6 tanks to control terminal cyanide at required levels. This existing control strategy is considered optimal and no new strategies are being considered.

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

X in full compliance with

The operation is	☐ in substantial compliance with Standard of Practice 4.3
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

The site was using a Knight Piésold probabilistic water balance (PWB) which used Extent software, using Excel spread sheets for data input. The model included baseline data and could do stochastic as well as deterministic runs. Input data comes from the site's electronic weather station. Model testing indicated that there is no risk of overtopping of the TSF during power outages.

At recertification, a new spreadsheet probabilistic model which replaced the KP model was reviewed. This model included water management and user water requirements. The new model includes different modules: a TSF catchment area of 1 070 000 m², and TSF reclaim water pumped directly to the plant process water pond. The spreadsheet includes climatic data recording evaporation and daily rainfall. The Kahama local rainfall data covers the last 40 years. A climatic review from 2006 was sighted indicating a downward trend in rainfall. The modules include a Pit module, and a water balance model using the 1:10 year event as the Mine has only a 3 year life remaining. The TSF module includes 1:10 year event. TSF risk indicators include Tailings deposition elevation Northern, West and Eastern at plus 300mm freeboard, the 1:100 year, recurrence interval 12 months, wet rainfall sequence for the operating pond + 500mm freeboard, the 1:100 year 24 hour storm Probable Maximum Precipitation (PMP) event of 101mm (+500mm freeboard) and the actual 24 hour storm event for the last 12 years, being 76 mm. The current freeboard is 7.166m to the spillway. The TSF return water is calculated, and the Feed to TSF, including tonnage and densities, is included in the model. The model also includes the inner embankment, the lined embankment, the dry beach and wet beach each, with different run off constants. The model includes the TSF



changing size. Owing to the large freeboard, no revision of operating practices were identified during the model runs. The model currently indicates a level of 2.55 m TSF freeboard required for a 1:10 year wet storm event including the 1:100 year 24 hour storm event, plus the required 500mm. An ultrasonic level detector indicates plant process pond levels. The process water pond minimum freeboard is 500 mm and the PWB indicates a freeboard requirement of 208mm in the case of the 1:100 year 24 hr storm event.

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

X in full compliance with

The operation is	$\hfill \square$ in substantial compliance with	Standard of Practice 4.4
	\square not in compliance with	

Basis for this Finding/Deficiencies Identified:

The plant samples the tailings thickener feed every two hours and sends the sample for WAD cyanide analyses. The daily average is calculated and presented in graphic form. Review of the plant WAD cyanide data shows that the TSF spigot compliance point is mostly operating at less than 50 mg/l WAD cyanide. The average daily WAD cyanide at the tailings thickener feed for the three years is 32.3 mg/l and the daily TSF spigot sample is 26.7 mg/l. Exceedances occurred and were investigated using the Incident Report Form and the Cyanide Destruction Process Upset procedure.

From 1st July to 31st December 2014, there were a total of 58 WAD cyanide exceedances. These were investigated and acted upon and were traced to: Oxygen line blockages, frequency of tanks off-line due to cleaning blocked oxygen lines, Planned Maintenance, unchoking feed pipes, and high copper deported into CIL. Corrective action included short term intervention to reduce the time period of exceedances and long term action to resolve the design and operating issues. Other primary issues were Oxygen plant malfunctioning and tripping, which was partly solved by 2015.

From 1 January to 31 December 2015, there was a total of 38 WAD cyanide exceedances observed and the causes were traced to: Oxygen line blockages (remaining an issue), frequency of tanks off-line due to cleaning of oxygen line, Planned Maintenance, unchoking feed pipes (frequency was reduced), and high copper deported into CIL. The causes for the oxygen line blockages and spargers blockages were further addressed and showed a decrease in the latter part of the year. Copper recovery was increased, reducing the copper levels in the tails and assisting with the detoxification plant efficiency.

The WAD cyanide data for 1 January to 31 December 2016 indicated 17 exceedances, an improvement over 2015. The significant exceedances from 11-16 February 2016 were as a result of the SMBS (Sodium metabisulfite) mix tank being holed and the other transfer pump not performing. The exceedances from 22-28 September 2016 were traced to, "...Spillage water pumped into the mixing tank using a new delivery line as the existing line to the Detox



tanks was choked and took a long time to clear...". The significant improvement in the copper floatation efficiency reduced the impact of copper on the WAD cyanide to zero incidents.

The WAD cyanide exceedances for 1 January to 17 June 2017 totalled 9. Exceedances occurring from 21-23 March 2017 were investigated and due to two CIL tanks being down, causing higher feed cyanide reporting to the Detox circuit, and the 10-19 April 17 exceedances were due to the installation of the new SMBS storage tank which impacts SMBS dosing into the tanks.(SMBS is part of the cyanide detoxification process.)

The Decant pond is sampled weekly and data reviewed from 2014 to 11/7/2017 indicated no exceedances occurred during the period.

Although the audit period in question has produced a significant number of WAD cyanide exceedances, it is concluded that the good faith effort to tackle the various complex operational and technical design improvements and changes, have shown on-going improvements throughout the three year period. Furthermore, the use of effective back-up procedures during the periods of upset have minimised the negative effects of the exceedances. Continuous bird mortality inspections have confirmed that during the three year period, the exceedances had no effect on bird populations and with no bird, wildlife or livestock mortalities. As a further control measure, the mine is fenced to prevent wildlife and livestock from entering the TSF.

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

X in full compliance with

The operation is	☐ in substantial compliance with Standard of Practice 4.5
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

There has never been a direct discharge to surface water since the mine has started and the closest river is 50 km away. There are seasonal wetlands in the vicinity but no discharge to these areas occurs. Groundwater is monitored via boreholes. No cyanide levels are detected above limits of detection, indicating that no indirect discharge of cyanide containing solutions takes place.

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

X in full compliance with

The operation is	☐ in substantial compliance with Standard of Practice 4.6
	\Box not in compliance with



Basis for this Finding/Deficiencies Identified

The TSF is fully lined to prevent seepage. The plant process water pond is fully lined and the plant is equipped with extensive concreted surfaces and competent secondary containments. Five boreholes, up and downstream of the TSF and plant, are analysed for free cyanide, WAD cyanide, and total cyanide. There are currently no legal standards are in place for ground water. All values recorded are at below limits of detection of 0.001 mg/l WAD cyanide.

No backfill is used in the mine and there was no evidence of seepage causing degradation of the environment.

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

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

Basis for this Finding/Deficiencies Identified:

All cyanide equipment including tanks, thickeners and mills, is placed inside concrete bunded areas draining to the events bund. There are no process tanks without secondary containment. All 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.

All bunds are equipped with sumps and dedicated sump pumps returning any spillage back to the process. All tanks are placed on ring beams which are designed with impermeable linings and leak detectors. The Detox tanks are placed on ring beams, with an impervious membrane fitted with leak detection facilities. The tanks are placed inside bunds, draining to the events bund. The cyanide area sump pump will start automatically when the level in the sump is high and, if and only if, the cyanide concentration in CIL tank 1 is not above the set point. The reagent strength tanks are made of steel, pipelines are made of steel, with butt welds and no flanges.

The reagent strength pipelines are designed to be flangeless, butt welded lines, and are placed on pipe racks running above concrete spillways draining to the events bund. Other slurry and solution pipelines run across concrete spillways draining to the events bund. The TSF slurry and return water pipelines are placed inside a lined trench draining back into the events bund. The pipelines on top of the TSF is placed within the TSF footprint. No sections of the pipeline posing a risk to surface water have been identified and there are no rivers close by.

Standard of Practice 4.8: Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

X in full compliance with



The operation is	☐ in substantial compliance with Standard of Practice 4.8
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

The original Buzwagi electronic, Quality Assurance/Quality Control (QA/QC) program documentation for the original construction of the plant in 2008 was confirmed as it was reviewed at the certification audit. There were no additions to the plant since the certification audit.

The Structural Inspection and Maintenance (SIMM) Management report dated April 2016 by a Professional Mechanical Engineer reported the following: the SIMM report identified issues e.g. the CIL tanks showing leaks in the tank floors. The tanks are placed on an impervious plastic membrane and equipped with a leak collection / detection system, preventing leaks from polluting ground water. A SIMM corrective action program: Structural Inspection and Maintenance Management Action Tracker-2016 confirmed the completion of the cyanide bund wall repair during site inspection. With regard to the CIL tanks: Tanks #2,3 and 6 had their floors repaired, and tanks #1,4 and 5 are in progress. Other lower priority actions are detailed in the report including target completion dates as a part of the on-going maintenance program. The QA/QC documentation (electronic files) of lift 6 and 7 (electronic files) of the TSF was sighted. The QA/QC process was conducted by Knights Piésold, based on the design of the lift. The files were electronically sighted, sampled and the QA/QC program tests were confirmed. Tests checked included air tests, soil compaction tests, Fusion (wedge) destructive test logs, panel placement logs, panel seaming logs, repair logs, trial weld logs and vertical pressure tests.

The Buzwagi Gold Mine Tailings Storage Facility (TSF) Annual Technical Audit 2017 (draft) stated, "The stage 6 and 7 embankment raises are currently under construction and are progressing. The construction program is scheduled for completion in May 2016 followed by the liner installation in June 2016. All construction is being carried out by an external civil engineering contractor (Kascco). Consultants Knight Piésold are fulfilling the on-site QA / QC role on behalf of Acacia Mining PLC. Stages 1 to 5 embankment raises have been completed to-date".

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

A water sampling procedure and a monitoring program is in place to sample both surface and groundwater for cyanide. The general sampling procedure specifies roles and responsibilities,



actions and methods, cleaning of equipment, preparation, sample labelling, sampling, sample preservation, the sampling packaging and transportation, and notification by the laboratory. Monitoring, sample preservation and custody and chain of custody procedures were developed by the appropriately qualified Environmental Scientist. Boreholes are monitored quarterly, ponds monthly, surface water monthly, river quarterly. The WAD cyanide in the tailings is sampled every two hours from the tailings thickener feed stream. TSF daily inspections include a check item for birds. The Environmental Department conducts daily inspections of TSF area and the inspection guidance includes pictures of bird species. Wildlife mortalities are analysed if they occur. The frequency of inspections is thus deemed adequate to characterize the medium being monitored and to identify changes in a timely manner.

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 and livestock.

X in full compliance with ☐ in substantial compliance with Standard of Practice 5.1 ☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The operation is

There is a Buzwagi Mine decontamination and decommission plan in place. The Plan includes an implementation schedule. The Plan is reviewed/revised annually as part of the review and updating of the operations Mine Closure Plan. The plan will further be assessed and modified to suit changes related to the Closure, Decommissioning, Decontamination and Dismantling activities.

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

X in full compliance with

The operation is $\ \square$ in substantial compliance with Standard of Practice 5.2 $\ \square$ not in compliance with

Basis for this Finding/Deficiencies Identified:

The Buzwagi Gold Mine, Detailed Mine Closure Plan, dated June 2017 was sighted and contains the summary costs for the process plant. It was confirmed that a line item on cyanide



decontamination totalling US\$299 931 was included in the source document, "Standardised cost reclamation", produced by Barrick and SRK Consulting, dated 1 Nov 2016 for Buzwagi Gold Mine. The basis for the estimates is Code compliant, i.e. third party implementation with rates and estimates applicable to an outside contractor. The costs are reviewed annually.

A rehabilitation agreement between the Tanzanian Ministry of Energy and Minerals and Pangea Minerals Limited (for Buzwagi Mine), signed by Prof Sospeter M Muhongo (Minister of Energy and Minerals) and Deo Mwanyika (Director Pangea Minerals) on 14 December 2016 was sighted. A Metropolitan Tanzania Insurance Company Guarantee dated 27 January 2016, posting a rehabilitation bond to finance the costs of rehabilitation of US18 628 489 was sighted. The document was signed by Metropolitan Tanzania Insurance Company on 26 January 2016.

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

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

X in full compliance with

The operation is	$\ \square$ in substantial compliance with Standard of Practice 6.1
	\Box not in compliance with

Basis for this Finding/Deficiencies Identified:

There are 6 Cyanide specific supply chain procedures, 42 Process plant cyanide specific Safe Operating Procedures (SOPs), 11 Process Plant Engineering SOP's, and 6 cyanide-related Environmental procedures. The Tailings Storage Facility (TSF) is operated as per the Pangea Minerals Limited Buzwagi Project Tailings Storage Facility and Water Management Infrastructure Operations Manual. This manual covers the operation, monitoring, maintenance, and ongoing construction requirements of the following site infrastructure: Tailings Storage Facility (TSF), Water Storage Pond (WSP), Water Harvesting Area (WHA), Plant Site Water Pond (PSWP), Open Pit, Storm water diversion channels, and Site sediment control structures. The latest External Technical Audit of the TSF concluded, "...The tailings delivery system to the TSF is in good condition, The installed piped tailings distribution system is in a good condition, The TSF, WSP and WHA embankments appear in good condition with no stability issues noted, Construction of the facilities is generally progressing in accordance with the design intent, Technical Specification and adopted QA/QC procedures, Monitoring of the facilities is generally in accordance with the design intent..."

A sample of procedures was reviewed, including flushing sodium cyanide dosing system, confined space entry, cyanide pump maintenance, mixing cyanide, Buddy (Standby Person), Cleaning sodium cyanide storage tank – reagents, and found to include appropriate personal protective equipment (PPE) requirements, pre-work inspection requirements and to spell tasks and mitigation to minimize worker exposure.

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The site continues to use a Barrick Corporate change management procedure which is functioning and change management exercises are signed off by Health, Safety and Environmental officials.

Worker inputs to health and safety matters and procedures were channelled through Health & Safety meetings and via Pre-Shift Information (PSI) meetings / Toolbox Meetings. It was confirmed that worker participation took place during the interviews with selected staff from Engineering, Security and Process. They reported that the meetings are held daily and include a safety topic. All safety hazards are reported to the Supervisor at the meeting and feedback on procedures is accepted. Staff also participated in Job Hazard Assessments (JHA) and in Formal Risk Assessment Scoping Documents.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

A pH of above 10.5 is maintained in the CIL tanks and a minimum of pH of 12 is used in the cyanide mixing plant. At the detoxification plant, a pH 7.5 to 8.5 is maintained. It was confirmed in design criteria where test work determined that the pH needed to be controlled between 10 and 11. and Leach pH alarms at 9.5 L, and 9.2 LL. Fixed HCN gas monitors are located at: the Pregnant solution tank, the Gold room, the CIL at the dosing point, the Cyanide mixing area (2 monitors), and the Detox tanks (2 monitors). Fixed monitor installations are based on the risk and potential of high cyanide gas formation and the list of potential hot spots are trained to all employees, contractors and visitors during the cyanide awareness program. The site also makes extensive use of Dräger PAC 7000 personal HCN gas monitors, X-am 5000 personal HCN gas monitors and Monotox personal HCN gas monitors. All monitor alarm levels are set at 10 parts per million on an instantaneous basis and 4.7 parts per million continuously over an 8-hour period. The Manufacturer requires monitor calibration at 6 monthly intervals and manufacturer-trained instrumentation staff calibrates fixed and personal HCN gas monitors as a part of the PMS. Calibration records were sampled and reviewed, along with instrumentation technicians' competency certificates.

On-going inspections and checks are also used to monitor and check facilities and that emergency response equipment is functioning. Safety equipment such as safety showers, low pressure eye wash stations, and fire extinguishers are numerous, regularly inspected, and adequately signposted. Safety showers are linked with sensors to the control room where the activation of the shower alarms is shown on the SCADA. Hard copy and electronic inspection records were sampled and found to be up-to-date.



Cyanide dosing points are identified using signs and it was confirmed that the cyanide store and cyanide mixing area are equipped with the appropriate no smoking, open flames and no eating and drinking signage and PPE requirements. Entry to the CIL has signage requiring HCN gas monitor on entry. Hot Spot areas identified with appropriate signage. A site-wide pipe colour coding system is in operation which includes cyanide pipe colour coding and directional flow signage. Laminated MSDS's are available in strategically located boxes on the site and cyanide first aid protocol posters were located at the cyanide dry store and the storage tanks and dosing points. This information is also available in Swahili, as the working language on the site is English and Swahili.

Formal employee interviews were used to check awareness and sensitivity to health and safety measures and the response from employees and contractors alike, was found to be appropriate and acceptable. Accident and incident reporting and investigation procedures were found to be in place and effective. No cyanide-related incidents or accidents have occurred on site since certification audit.

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

X in full compliance with

The operation is	$\ \square$ in substantial compliance with Standard of Practice 6.3
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

The plant has Oxy-viva oxygen kits in place at the control room (8 spare cylinders in the store), first aid responders cabin, and an ERT emergency response kit. Radios and cell phones are used for cyanide emergency calls to the control room operator (down to operator level). This was confirmed during interviews with employees. All showers are linked to an alarm in the control room and a general alarm can be activated in the control room. Antidote kits are stored in a fridge in the on-site clinic and are replaced as directed by manufacturers. Running water is available throughout the plant. Cyanide first aid equipment is inspected monthly and hard copy and electronic records were sampled and checked.

All workers on the plant are trained in emergency response including Oxy-viva use (confirmed during interviews). Each shift crew has a team of 6 emergency responders who will attend to emergencies, with the rest moving to the emergency assembly point. A fully trained Mine Emergency Response Team (ERT) is in place that will provide advanced cyanide emergency first aid on the plant site. A fully equipped mine clinic is situated outside the plant, staffed by a doctor on call 24 hours per day. A Paramedic is stationed at the clinic during daytime and on call after hours. The Clinic has the ability to handle a maximum of 1 patient in the emergency room with 2 beds in an observation room. 3 large oxygen cylinders are available: 2 in the clinic and 1 in the store, with 1 small cylinder and an Oxy-viva set in the ambulance. Cyanide PPE is available in the ambulance.



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An air and ground medical rescue agreement is in place. Evacuation for cyanide and medical treatment at the Nairobi hospital, Kenya, was confirmed. ERT training drills are conducted as per a schedule. The lessons learned include review of the emergency program, and a rebriefing of staff. Training staff were present during drills and training deficiencies were noted and action plans developed. To-the-clinic man down gassing and splashing scenario drills have been carried out and problem areas identified and corrected.

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

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

There is a Buzwagi Emergency Response Plan (Revision 6 dated 7 March 2017) in place and functional, which includes site-specific cyanide emergency scenarios and responses. Cyanide first aid procedures are included in the Plan. The Plan combines existing procedural responses and emergency provisions to deal with the various scenarios and includes and identifies the emergency response team and coordinators who are on all shifts. These preparations are regularly reviewed in the light of changes, mock drill learning points and employee feedback. Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

The operation is $\ \square$ in substantial compliance with Standard of Practice 7.2 $\ \square$ not in compliance with

Basis for this Finding/Deficiencies Identified:

Although the Community is not directly involved in the emergency plan, the communities are made aware of cyanide through dialogue discussions, presentations and briefings. The workforce were originally formally briefed / informed of the detail on the ERP and are updated, as appropriate. The structures available for this information flow are safety meetings, Pre-shift Information meetings (PSIs)/toolbox talks, appropriate risk assessments, and use of emergency drill feedback and debriefing sessions. The workforce and medical service



providers are involved in the testing of the plan through emergency drill participation and feedback.

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

X in full compliance with

The operation is $\ \square$ in substantial compliance with Standard of Practice 7.3 $\ \square$ not in compliance with

Basis for this Finding/Deficiencies Identified:

The ERP designates emergency controllers and the cyanide emergency response team. The roles and responsibilities of the controllers and team are defined in the Plan. The emergency response team will commit the resources necessary to deal with the emergency. Competency of emergency response coordinators is checked through mock drills. The Plan includes the requirement that emergency response training be undertaken. Emergency response resources lists and the Hazmat Trailer inventory was checked and site inspections confirmed availability and readiness. The Plan includes contact references (telephone, cell phone, etc.) of internal and external resources for the various scenarios, particularly with detail where external resources and skills might be needed. An ERP duty card list is also included in the Plan. Emergency Team members were checked and training records and assessments showed the individuals to be prepared and equipped for cyanide emergencies. Periodic full scale drills are held to ensure that roles and responsibilities are understood and clearly implemented.

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

X in full compliance with

☐ in substantial compliance with Standard of Practice 7.4

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The Emergency Response Plan includes full details of appropriate emergency contacts and reporting, and the call-out procedure and contact information lists which are updated regularly. Communication to the outside media follows the guidelines outlined in the Crisis Management Plan and is channelled via the General Manager and Company Public Relations Officer based in Dar es Salaam.

A Corporate Environmental reporting standard contains classifications of environmental incidents and appropriate reporting requirements. The Environmental Communication procedure covers the internal and external communication process and information is released to Corporate Legal and Corporate Affairs Departments who will release the information publically as appropriate. The site is not allowed to release information.



Standard of Practice 7.5: 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 Standard of Practice 7.5
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

The Emergency Response Plan describes measures for clean-up and neutralisation of solid or solution spills (included in a specialised cyanide clean-up and decontamination procedure), sampling, PPE and materials to be used. The use of treatment chemicals such as ferrous sulphate, hypochlorite and other treatment chemicals in surface water is prohibited, unless human life is under direct threat. The Plan includes no provision for alternative drinking water supplies as there are no communities receiving water from sources that could be contaminated by the mine.

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

X in full compliance with

The operation is $\ \square$ in substantial compliance with Standard of Practice 7.6 $\ \square$ not in compliance with

Basis for this Finding/Deficiencies Identified:

According to the Plan, "... shall be fully reviewed: annually; and at any time major changes occur (e.g. after an emergency or emergency drill, change in contact details for key personnel). The Emergency Plan will be revised in line with recommendations from emergencies, emergency drill debriefs and recommendations from Emergency Plan reviews at other operations..." Reviews are on-going.

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

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

X in full compliance with



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

Basis for this Finding/Deficiencies Identified:

All people entering the plant undertake the cyanide awareness course. The course describes the cyanide hazards, cyanide appearance and includes cyanide first aid. All Process Plant staff receive Oxy-Viva training (Oxy-viva CPR cyanide). Written tests are given and the pass mark is 75%. Site cyanide training programs were reviewed. Refresher training is conducted annually.

Electronic, spreadsheet-based records are kept in addition to scanned records. It is Government policy to keep training records for 5 years after employees leave the Company. The training matrix was reviewed and interviewees training records were checked.

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

X in full compliance with

The operation is $\ \square$ in substantial compliance with Standard of Practice 8.2 $\ \square$ not in compliance with

Basis for this Finding/Deficiencies Identified:

The plant task training matrix details the training module requirements for each job on the plant. The training matrix also details the training needs analyses per person, showing the training completed as well as training required. Since certification, an engineering training matrix has been developed and this was also reviewed. Training was verified during a review of the records of the staff interviewed. There are 2 Trainers who are doing training in the process plant, whose certificates in training and assessment from the Australian Institute for Training and Technology Transfer and experience were confirmed. All employees go through cyanide awareness before being allowed onto the plant. Staff are signed off, following assessments by a Supervisor and Trainer, to confirm competency before being allowed to work in the cyanide plant unsupervised. The Buzwagi Competency and Assessment Guide is used to determine the competency of the Operator for each module or SOP. The form includes a written theory assessment section, Operator assessment practical, and an independent assessment Operators Questionnaire. A gate card control system blocks a person from entering the plant without being cleared following cyanide training. Employees are rotated throughout the plant at periods of between 6 and 19 months. On returning to an originally trained job, the employee will be assessed and retrained as necessary. Planned Task Observations (PTOs) are used to confirm competence on an on-going basis. Completed PTOs were sampled.

Written tests, job observations and interviews are used to test effectiveness of task training. Electronic, spreadsheet-based records are kept in addition to scanned records. Sampling of



records confirmed that training received and 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. It is Government policy to keep training records for 5 years after employees leave the Company.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

Six Operators from each shift are trained as first responders. They will react when first on the scene. A mine wide emergency response team will be called out to provide advanced first aid and paramedic assistance as well as spill response. Emergency Response Team (ERT) training includes additional specialised training in HAZMAT, confined space, equipment checks, firefighting training, hose drills, first aid, vehicle rescue, ropes, CPR, HAZCHEM, and breathing apparatus training.

All plant staff are trained in cyanide awareness, which includes emergency response. A person not trained as a first responder will report the emergency through the emergency channel and then evacuate the area.

The community is made aware of cyanide and the transport of solid cyanide but does not form part of the ERP, and no local responders are involved in the ERP. The ERT receives two weekly improvement training which includes cyanide. Plant cyanide response training is done as per the annual training plan. ERT training drills are conducted according to a schedule. Periodic mock drills are undertaken and training personnel attend these drills and formally evaluate response and performance. It is Government policy to keep training records for 5 years after employees leave the Company. ERT training records were sighted and sampled.

9. DIALOGUE: Engage in public consultation and disclosure.

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

X in full compliance with

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



Basis for this Finding/Deficiencies Identified:

Dialogue is two way and thus the forum for receiving issues and presenting responses is the same. A document, entitled, "Sustainable Communities, Timetable For Cyanide Awareness For External Stakeholders for 2017" includes the following stakeholders and communities and this was reviewed. It listed the following stakeholders:- Kagongwa Ward Committee, Isaka Ward Committee, Mwendakulima A& B Primary school, Mwendakulima Secondary school, Bugisha Secondary School, Chapulwa Primary School, Mwime Primary School, Nyasubi Secondary School, Nyasubi Ward Committee, Mwendakulima Ward Development committee of the Town Healthy Committee, Isaka Secondary School, Isaka Primary School, Bandari Primary School, Nyasubi Primary School, Mondo Ward Development Committee, and Defence and security committee.

A cyanide awareness program is used and the presentation, "Community Awareness Campaign, Hazards of Cyanide Chemicals used in Mining in case of Accidents during Transportation" was sighted. The presentation is also available in Swahili, the local language. A list of meetings and associated meeting minutes was sighted and sampled for the three year period since certification. A document, "Action Plan for Cyanide Awareness to External Stakeholders in April 2015" was also sighted and reviewed. Visits are arranged to the mine and electronic and hard copy records were sighted and sampled. During the meetings and presentations, questions and discussion raised was consolidated in a document, "Issues and Suggestions Observed during Cyanide Awareness in the Community", which included actions and responses.

Standard of Practice 9.2: Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

Dialogue is two way and thus the forum for receiving issues and presenting responses is the same. A document, entitled, "Sustainable Communities, Timetable For Cyanide Awareness For External Stakeholders for 2017" includes the following stakeholders and communities and this was reviewed. It listed the following stakeholders:- Kagongwa Ward Committee, Isaka Ward Committee, Mwendakulima A& B Primary school, Mwendakulima Secondary school, Bugisha Secondary School, Chapulwa Primary School, Mwime Primary School, Nyasubi Secondary School, Nyasubi Ward Committee, Mwendakulima Ward Development committee of the Town Healthy Committee, Isaka Secondary School, Isaka Primary School, Bandari Primary School, Nyasubi Primary School, Mondo Ward Development Committee, and Defence and security committee.

A cyanide awareness program is used and the presentation, "Community Awareness Campaign, Hazards of Cyanide Chemicals used in Mining in case of Accidents during Transportation" was sighted. The presentation is also available in Swahili, the local language.



A list of meetings and associated meeting minutes was sighted and sampled for the three year period since certification. A document, "Action Plan for Cyanide Awareness to External Stakeholders in April 2015" was also sighted and reviewed. Visits are arranged to the mine and electronic and hard copy records were sighted and sampled. During the meetings and presentations, questions and discussion raised was consolidated in a document, "Issues and Suggestions Observed during Cyanide Awareness in the Community", which included actions and responses.

Standard of Practice 9.3: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

X in full compliance with

The operation is	$\ \square$ in substantial compliance with Standard of Practice 9.3
	\square not in compliance with

Basis for this Finding/Deficiencies Identified:

A cyanide awareness program is used and the presentation, "Community Awareness Campaign, Hazards Of Cyanide Chemicals Used In Mining In Case Of Accidents During Transportation" was sighted. Presentations are given in English and Swahili. Literacy levels in the area are high, estimated at 80%. The local language is Kisukuma but all people can speak and / or understand Swahili.

The corporate incident reporting and investigation standard 5 is used for accidents. Section 5, Incident Classification, includes reporting requirements. No cyanide accidents have occurred since certification.

A Corporate environmental reporting standard contains classifications of environmental incidents and appropriate reporting requirements. The Buzwagi procedure, Environmental Communication, covers internal and external Communication. Information is released to the Corporate Legal and Corporate Affairs Departments who will release the information publically, as appropriate. The site is not allowed to release information.

The 2016 Sustainability Report, http://www.acaciamining.com/~/media/Files/A/Acacia/reports/2016/ACA_4090_Sustainability_Brochure_AN_310516-web-res.pdf was sighted which included reference to cyanide and the Cyanide Code were found on the Acacia website at:- http://www.acaciamining.com/sustainability/our-material-areas/the-environment.aspx. Any relevant environmental incidents that might occur will be included in the sustainability report, but none have occurred since certification.

