

***INTERNATIONAL CYANIDE
MANAGEMENT INSTITUTE***

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

Certification Summary Audit Report

***AngloGold Ashanti Continental
Obuasi Gold Mine
Ghana***

18th – 22nd November 2013



Name of Operation:	Obuasi Gold Mine
Name of Operation Owner:	AngloGold Ashanti Continental Africa
Name of Operation Operator:	AngloGold Ashanti Continental Africa
Name of Responsible Manager:	Mr Victor Benewoe, Senior Manager: Processing
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Location Detail and Description of Operation:

Obuasi Gold mine is located in the Ashanti Region of Ghana, West Africa. Obuasi is some 280km north west of the capital, Accra. It is 320km, by road, from Accra.

The mine has been in existence for over 100 years and currently consists of a mine extracting underground sulphide ore from a depth of approximately 1500m. The mine is primarily an underground operation, although some surface tailings mining still takes place. The mine life is currently estimated at approximately 50 years. The processing facilities currently consist of a Sulphide Treatment Plant (STP) and an Alternate Ore Treatment (AOT) Plant which treats low grade oxide material and tailings. The operation has two Tailings Storage facilities (TSF's), one of which is no longer receiving tailings material and the other is due for closure by the end of 2015. A new TSF is currently under design and is planned to come into operation to take over from the one currently receiving STP tailings.

MINERAL PROCESSING AND METALLURGICAL TESTWORK**Introduction**

The Obuasi mine currently treats sulphide and transitional ores at its Sulphide Treatment Plant (STP). The Tailings Sulphide Plant (TSP), which was commissioned in October 2010, re-floats STP flotation tailing is currently being taken out of circuit. An Alternative Ore Treatment (AOT) Plant was commissioned in August 2013 to treat low grade oxide material and tailings.

At Obuasi, the minerals associated with gold in the refractory ore are arsenopyrites, pyrites and pyrrhotite and the gold is encapsulated within the crystal structure of these

minerals. The gold is recovered by gravity concentration and flotation followed by the regrinding of the sulphide concentrate before bio-oxidation to liberate locked gold in sulphide minerals. The bio-oxidation product is leached by cyanidation using the carbon in leach (CIL) process. Water used in the processing plants was previously sourced from local rivers but is now mainly treated recycled tailings dam return water.

STP PROCESS DESCRIPTION

Overview

The Sulphide Treatment Plant (STP) has a design capacity of 274 tons per hour (tph) of refractory transitional and primary sulphide sulphur ores yielding 30tph of sulphide sulphur concentrate for processing in its BIOX[®] facility. The treatment process flow includes primary crushing, semi-autogenous/ ball milling, flash flotation and conventional flotation, bio-oxidation and carbon in leach (CIL) gold recovery. Gravity Recoverable Gold (GRG) is recovered at the Mill and BIOX[®] Circuits via Knelson concentrators.

MILLING AND FLOTATION

The milling circuit consists of two semi-autogenous (SAG) mills, SAG 1 and SAG 2, in open circuit and a Ball Mill in closed circuit with a cluster of cyclones. The SAG and Ball mills discharge is pumped to a set of primary cyclones whose under flow reports to the Knelson concentrators for free gold recovery while the overflow is screened, conditioned and subjected to conventional flotation.

Flash flotation cells are fed with the Knelson concentrator tailings, to recover freshly liberated coarse sulphides which are further milled in a regrind mill and classified to obtain a finer material as product. Tailings of the flash cells gravitate into the ball mill whose discharge joins the SAG discharge.

The flotation circuit consists of three 100 m³ capacity OK Tank cells in series, seven 42.5m³ capacity conventional scavenger cells, and five 16m³ capacity OK cleaner cells. The generated flash concentrate combines with the final concentrate from the conventional flotation circuit in the concentrate thickener and the thickened pulp is pumped into a surge tank to serve as feed to the BIOX[®] plant.

The tailings from the scavengers is thickened and pumped to join neutralized effluent for backfill preparation for the Underground backfilling operations.

Concentrate from the Knelson is treated by intensive cyanidation in an In-line Leach Reactor (ILR) and the generated pregnant solution is electro won in the Gold House. The ILR tailing is pumped into a settling cone at the AOT Carbon –in –Leach (CIL) circuit. The settled solid is drained into the AOT CIL head leach tank.

BIOLOGICAL OXIDATION (BIOX[®])

Reactors

The STP BIOX[®] Plant designed capacity is 1050 dry tons of flotation concentration per day. Flotation concentrate in the storage / surge tank is fed to the BIOX[®] reactors at 20% solids after automatic dilution. The feed is split into three trains of six reactors (895m³ each). Nutrient which is a source of Nitrogen and Phosphorus is added at this stage.

Potassium which is also required by the bacteria is naturally available in the concentrate. The bacteria also require oxygen and carbon for cell growth, which is available from the air sparged into the reactors, and from carbonates in the ore.

Each of the three trains consists of three Primary reactors in parallel and three secondary reactors in series. The fourth reactor in each module also serves as a primary when any of the dedicated primaries are off line for maintenance. The reactors are made of stainless steel and equipped with air spargers and cooling coil baffles. Sulphur and iron oxidizing bacteria in the reactors oxidize the sulphides and liberate the occluded gold during the process to render it amenable to cyanidation. Major factors which influence bacterial activity are temperature, pH, dissolved oxygen and pulp densities.

Counter Current Decantation (CCD) /Gravity Circuit

The oxidized pulp from the BIOX[®] circuit which is acidic and has high dissolved iron and dissolved arsenic content is pumped into a series of four Counter Current Decantation (CCD) high rate 20m diameter thickeners. Sufficient amount of water is added to the last thickener to wash out the dissolved salts from the solids. The decanted liquor or effluent is pumped to the neutralization circuit. In addition to the washing of slurry, the CCD circuit thickens the pulp to about 40% solids prior to cyanidation at the BIOX[®] CIL circuit. The reduction in acid content reduces the lime consumption at the CIL and the reduction in iron and arsenic reduces cyanide consumption. Incorporated in the CCD circuit is a gravity circuit between the third and fourth stages and it consists of a cluster of 10 inch cyclones and a 30 inch Knelson Concentrator with a G-5 cone. The concentrate from the Knelson concentrator is subjected to intensive cyanidation in a batch In-line Leach Reactor (ILR). Gold solution from the ILR process is pumped to the eluate tank for electrowinning in the Gold house. 5 to 8% of the total plant gold production comes from this circuit.

Neutralization and Arsenic Precipitation

The BIOX[®] effluent contains mainly arsenic (V), as well as ferric sulphate and sulphuric acid. This solution is treated in a series of six agitated neutralization tanks equipped with air spargers. The effluent treatment is a two stage neutralization process; in the first stage, the pH of the solution is raised with milk of lime or seashell slurry to a pH of between 4 and 5 in the third tank. In the second stage, milk of lime is added to the last three tanks to a final pH of between 7 and 8. A minimum retention time of 6 hours was required for stable precipitates to form. The neutralized effluent from the sixth tank is pumped to the Backfill Plant where it combines with the flotation tailings and classified for backfill preparation.

GOLD RECOVERY

Carbon In Leach / Desorption

The newly commissioned BIOX[®] CIL circuit consists of three (3) pre-oxidation tanks with live volume of 372m³ each, and eight leach tanks of live volume of 717 m³ each and eight (8) CIL tanks. The pre-ox step employs a two stage pH conditioning with lime and high DO levels of 25 ppm to precipitate Fe and S ion species. A 10 tpd oxygen plant has

been installed to generate enough oxygen for the pre-ox and leach tanks. The design of the new plant incorporates all of the cyanide code compliant features. Installed also is a cyanoprobe to provide online cyanide concentrations. The Flotation CIL is made up of six tanks each with a live volume of 1600m³. All of the flotation CIL tanks are currently employed to leach Diawuoso tailings material from the North of the Mine. The final leach residues from the two streams are pumped to the holding tank at the Backfill plant and subsequently pumped to the Sansu Tailings Storage facility (TSF).

Electrowinning/Smelting

Gold-laden carbon from the CIL circuits are treated in a desorption circuit employing the Anglo America Research Limited (AARL) system. Gold-rich eluate is passed through electro winning cells situated in the Gold house in which the gold is recovered from the eluate by electroplating onto steel wool cathodes. Gold loaded steel wool cathodes are calcined in electric ovens. The calcined cathodes are then smelted in a diesel furnace to produce bullion bars.

PROCESS WATER TREATMENT PLANT

Environmental compliance issues have necessitated the need to remove toxic components (cyanide, thiocyanate, sulphates, nitrates, arsenates, heavy metals) from mine waste water prior to being recycled back to the plant for reuse. The STP Process Water Treatment Plant consists of the following sections: Carbon In Solution (CIS), Rotating Biological Contactor (RBC) and Actiflo™ plant.

Beside these water treatment facilities are the 250m³ and 500m³ Process to Water (P2W) Plants. The 250m³ plant has been in operation since February 2012 and takes feed water from the Pond 3 and discharges the permeate or the high quality product water into the environment. The plant uses a process of electro coagulation to precipitate the heavy metals and then passes the water through settlers and filters before final cleaning with reverse osmosis units. The 500m³ unit has been earmarked for commissioning at the end of 2014 Quarter 1.

Process Overview

Carbon In Solution and the Rotating Biological Contactor

The CIS plant is used to remove residual gold from the dam decant water using carbon in tanks. The stripped solution is then fed to the RBC. The Rotating Biological Contactor (RBC) technology is employed by Obuasi Processing for biological treatment of its cyanide contaminated waste water. RBC provides conditions that select for, and promote the growth and viability of micro-organisms which have a capacity to degrade cyanide containing compounds. RBC is therefore responsible for removing CN- and SCN from the dam decant water.

Tailings Storage Facility

Background

Tailings disposal at Obuasi takes place in the Sansu TSF, which was commissioned in 1992. East Kokoteasua TSF had been hydraulically recovered with the retreated tailings deposited at Pompora, this operation has since stopped - Pompora TSF was operated from 1992 to 2010. Hydraulic re-mining of Kokoteasua has also stopped. Two mined-



out pits (T1 and T2) have been used intermittently for tailings deposition. T1 has been raised and has been used to store excess storm water.

Fraser Alexander Tailings are appointed to operate Sansu and Pompora and were doing the hydraulic reclamation of Kokoteasua.

Sansu

The Sansu (otherwise referred to as the South or Dokyiwa) TSF is an approximately square dam that serves the Sulphide Treatment Plant (STP). The TSF was initially formed behind a compacted laterite starter wall, and then raised by cycloning between 1993 and 2001. The most recent raises are formed by a compacted laterite outer skin with a day-wall / paddock construction method.

A decant barge was the primary decant method with a penstock arrangement for emergency use. The decant barge had been replaced with a decanting pump installation at the end of the lengthened pool wall, and a permanent floating penstock delivers return water direct to the plant. The emergency decant penstock is maintained. In addition to the above, a new decant penstock has been constructed near the North wall, which is intended to direct decant water to the proposed Sansu North Return Water Dam.

Pompورا

The Pompora TSF served the Tailings Treatment Plant (TTP) and was originally designed by Golder Associates (UK engineers). Wall raising was achieved by the deposition of cycloned underflow material in an upstream manner.

The slurry production was 180 000 tons per month (tpm), and reduced to 80 000 tpm before deposition ceased. The original planned maximum wall height was reached in 2006. SRK (Engineers) have reviewed the extension of the life of the facility and concluded that to achieve the additional height there were a number of requirements, which included the cycloned wall raising of the North Saddle wall which had been accomplished, effective clean/dirty water separation which is completed and, crucially, the sealing of the now defunct, but leaking emergency penstock.

The current plan is to re-mine Pompora for processing at the south plant with deposition on to Sansu TSF. Approval for this plan is also being sought.

East Kokoteasua

Fraser Alexander Tailings had conducted hydraulic tailings recovery operations at East Kokoteasua and this was followed by cleaning using excavator/haul truck; until the operation was stopped.



Auditor's Finding

This operation is

X in full compliance

☐ in substantial compliance

☐ not in compliance

with the International Cyanide Management Code.

Audit Company: Eagle Environmental

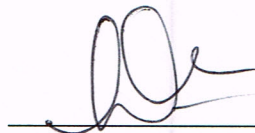
Audit Team Leader: Arend Hoogervorst

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Names and Signatures of Other Auditors:

Name : Dawid M. L Viljoen

Signature



Date: 14/7/14

Dates of Audit: 18th – 22nd November 2013

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 Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

Obuasi Gold Mine



Facility

Signature of Lead Auditor

14/7/2014
Date

Obuasi Gold Mine


Signature of Lead Auditor

10th July 2014

Auditor's Findings

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

Standard of Practice 1.1: Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

Obuasi has a Supply and Transport Contract with Samsung, a Cyanide Code consignor, who obtains cyanide briquettes from cyanide producers, TaeKwang (ICMI certified producer from 18 March 2011) and Tongsoh (ICMI certified producer from 7 March 2011). Samsung is also responsible for the transport of the cyanide. The contract requires that Samsung must be certified by the ICMI Cyanide Code and all sub-contractors must also be certified under the Cyanide Code.

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**
☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

There is a signed Contract for supply and transportation of sodium cyanide briquettes between Samsung and Obuasi Gold Mine, in place. Samsung is a ICMI certified consignor (Africa Supply Chain certified from 12 July 2011). The contract specifically

covers the responsibilities and requirements for transport, 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.

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:

The supply contract requires that the producer/supplier of cyanide must be a signatory to the ICMI Code and the producer supplier and transporter must be ICMI certified. The Samsung West Africa supply chain was certified on 12 July 2011 covering the complete supply chain from the producers in Korea to the site in Ghana.

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

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The new cyanide sparging and storage plant, including the cyanide dosing system, was designed by a professional Engineering Company, who undertake design and construction of metallurgical plants. Full civil, mechanical and instrumentation design drawing files including material specifications, were sighted and sampled. The new facility was designed and constructed according to sound and accepted engineering practices with materials appropriate for use with cyanide and located in concrete bunds away from people and surface waters and incompatible materials.



The weight transmitters installed on the cyanide circulation tanks are used to stop the pump in use when the weight in the circulation tank in use reaches the set point designated by the operating parameters. The ultrasonic level detector installed on the cyanide solution storage tank is interlocked to stop the pump in use in the event that the “High Level” alarm point is reached in the solution storage tank. The ultrasonic level detectors installed on the circulation tanks are interlocked with the pumps.

The cyanide sparge and storage tanks are located on plinths inside a concrete bund which acts as secondary containment. The cyanide sparge and storage tanks are equipped with ventilation pipes. No dry cyanide briquette store is used at the new sparging system as the cyanide briquettes are repackaged at a ICMI certified facility. The back-up solid cyanide store is located in the plant. The cyanide boxes are stored under roof, on a bunded concrete floor, with open ends and thus has adequate ventilation. The store is within a security area with access control.

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 dry cyanide briquette store is located at the new sparging system as the cyanide briquettes are repackaged at a ICMI certified facility and delivered to site. Solid cyanide briquettes are stored separately for use in abnormal circumstances when supply to the sparging plant is interrupted. Change management and an issue based risk assessment will be undertaken as and when required to address the interruption. A full set of 15 Standard Operating Procedures (SOPs) for the sparging plant covering activities in the cyanide sparging and dosing plant are in place and operational. These detailed, procedures spell out PPE requirements, use of a buddy in the process, and are clearly sequenced to prevent spillages and accidental releases during sparging and transfer processes.

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

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The site has 55 cyanide standard operating procedures (SOPs) including process procedures and 14 specific engineering procedures, 15 cyanide sparging plant SOPs, 22 environmental procedures and 13 emergency procedures. Tailings Storage Facility (TSF) specific procedures and operating practices include the Sansu (South) TSF Operations Manual containing operating procedures and a management plan, principles of operation, inspections and monitoring, emergency management plan and cyanide management. (The Pompora North TSF Operations ceased operations in 2010 but is still being monitored.)

Quarterly TSF monitoring meetings are held, attended by the AngloGold Ashanti Regional Tailings Engineers where action plans are followed up on and operating parameters reviewed and confirmed. The annual TSF Audit report dated June 2013 covering both TSF's contained on-going recommendations for actions.

All tanks, bunds, pond, impoundments, pipelines, valves and pumps are on the EMESA Planned Maintenance System (PMS) and are inspected on a regular basis. Wildlife inspections are carried out daily. Thickness testing is conducted on tanks based on the scheduled tank draining schedule. Operational and PMS inspection frequencies vary from shiftily to daily, weekly, monthly, six weekly, six monthly and annually. The plant is stopped during abnormal rainfall events filling dam 3, resulting in the increase in the TSF pool size exceeding the 120m limit. Once the pool size is reduced to safe parameters, the plant is restarted. The plant will be stopped if inspections or breakdowns require temporary shutdown of the plant to do repairs or maintenance. However, planned maintenance shutdowns are done every 6 weeks where scheduled maintenance requiring the shutting down of the plant is carried out. The Plant is designed and equipped with bund walls, sump pumps and all spillages are returned to the process. The plant is designed to drain into containment areas in case of power failure and no need for emergency power identified. The TSF levels are controlled using the penstock rings and valves. No emergency power is required to prevent unintentional releases on the TSF.

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

X in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 4.2**

☐ not in compliance with



☐ not subject to

Basis for this Finding/Deficiencies Identified:

The site uses Analyse and Improve (A&I) software where cyanide optimisation is addressed, including control systems. The Mineralogy is relatively consistent from underground sulphide ore (95%) and Surface ores (5%). Bottle roll tests are conducted daily and results including pH and cyanide consumption are recorded and documented. A new CIL section is being designed and test work was conducted to determine the optimum leach conditions including cyanide consumption, pH and pre oxidation.

The "control action development" section of the "Analyse and Improve (A&I)" software, includes using the TAC control philosophy on the Biox[®] CIL. The tails of the Biox[®] CIL is routed to the Alternative Ore Treatment (AOT) CIL utilising the high residual cyanide. Additional surface sources are also added to the AOT CIL to supplement the underground ore supply shortage and use is made of current spare capacity. The AOT CIL will be equipped with a TAC 1000 online cyanide control system once the new Biox CIL is commissioned. The cyanide dosing to the Biox[®] CIL is controlled using an on-line TAC 1000 cyanide analyser, controlling the cyanide dosing control valves to tanks 47 and 51. The cyanide in the AOT CIL is controlled, as needed, manually and cyanide titrations are used to determine the cyanide in this section.

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

X in full compliance with

The operation is

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

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The "OpSim model" software is used for the probabilistic water balance (PWB). The water balance covers the whole mine, as well as the TSF and the plant. The software input sheet includes: tailings deposition rates, design storm duration and return interval data, precipitation and evaporation data, and solution losses. The model was calibrated and predicts actual site information accurately. The design storm event used is the 1:100 year 24 hour storm event of 187mm. (The 1:50 year event is the second highest at 170mm). The mine uses the rescue department weather station data close to the Pompora TSF. Manual water meters are used at South TSF and Pompora TSF and these values are compared graphically. The same trend is observed for the three sets of data. Rainfall statistics for data from 1941 to 2012 and covering dry and wet years is used and evaporation data from the evaporation pan at the ETS shaft is utilised. Daily TSF and plant dam inspections include level of all water dams, TSF freeboard, and pool size. The report is sent to the environmental department and management daily. Seasonal changes, as indicated by the PWB, are being managed by the control room. The OpSim software continuously evaluates rainfall data against real data and assumptions.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The data indicates that all open waters contain less than 50 mg/l WAD cyanide and do not need special measures for restricting bird and wildlife access. The TSF feed slurry contains less than 50 mg/l WAD cyanide. The compliance sample is taken manually from the residue transfer tank, from where the tailings is pumped to the TSF discharge spigots. The sample frequency is three times weekly and this is based on the contact time in the CIL of 48 hours. This is an interim measurement as the on-line Cynoprobe sampler is experiencing problems with the sampling points, which are being addressed by the supplier and the operation. Sample results for open waters and TSF Feed during 2013 are as follows: - Tailings Pachuca (compliance sample): June to November - 4 to 8 mg/l WAD cyanide, for May - 4 to 30 mg/l WAD cyanide, April - 4 to 13 with outliers of 18 and 20, March - 2.34 to 10, February - 2 and 9, January - 1 to 8 with outlier of 14. Pool at TSF: June to November - less than 1, Jan and May - less than 2. Pond 3: January to November - less than 0.5 mg/l (average 0.03) WAD cyanide. OTP pond: January to November - all less than 1 (maximum 2) mg/l WAD cyanide. Holding pond: January to November - All less than 1 (maximum 2) mg/l WAD cyanide.

A sampling procedure for sampling at the ICMI compliance point describes the compliance sample point, the on-line analyses by the Cynoprobe, and manual sampling to be undertaken during Cynoprobe breakdowns, including sample preparation. No wildlife mortalities from cyanide have been noted or documented. An official incident investigation will be held on any wildlife mortality experienced.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

An official release to surface water, the Kwabrafo river, is taking place at the North TSF, following treatment of the decommissioned North TSF decant water in a reverse osmosis

(RO) plant (the RO plant was down for maintenance at the time of the certification audit). Sample values from January to 20 Nov 2013 showed all daily values were below 0.3 mg/l WAD CN (limit of detection). The P2W plant to the Nyam river showed sample values were less than 0.005 mg/l WAD CN (limit of detection – changed due to change of equipment). The Ghana Environmental Protection Agency (EPA) requires less than 0.2 ppm free cyanide and 0.6 ppm WAD cyanide and 0.01 ppm free cyanide in the streams. All TSF seepage collected is pumped back to the dams and no cyanide values above the level of detection were noted in the surface water samples up and down stream of the mine.

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

X in full compliance with

The operation is

☐ in substantial compliance with **Standard of Practice 4.6**

☐ not in compliance with

Basis for this Finding/Deficiencies Identified

In the South, the TSF is equipped with finger drains and catchment drains below the high walls. Seepage collection facilities are in place, equipped with pumps returning the seepage to the TSF pool. Boreholes are sampled for WAD cyanide. In the North, the TSF return water is pumped to the coffer dams, placed downhill in the valley. Clean water springs are separated from the process water using cut-off drains. Drainage from the TSF is collected in the coffer dams. Discharge to surface water from the coffer dams is treated in a Reverse Osmosis plant before discharge.

A map of environmental water sampling points and their geographical locations was sighted. For the downstream boreholes, the EPA limit is 0.6 mg/l WAD cyanide. For the South and North TSFs and the plant, monthly samples between January and Oct 2013 were >0.03 mg/l WAD cyanide).

The Mine uses cyanide free float tails as feed to the backfill cyclones from where the cyclone underflow is pumped to the backfill tank and to the shafts. No recorded contamination of ground water with identified beneficial uses was noted.

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:

The float CIL tanks are installed on ring beams and leak detection pipes, designed by a civil engineer as per design guidelines API 650, were retrofitted to the ring beams. These are supported by an Operational Procedure (Obuasi Processing Plant Procedure For Monitoring Leak Detection Pipes In The CIL Tank(s) With Concrete Ring Beam Foundation). The new Biox[®] CIL tanks are located on ring beams with an impervious layer beneath the tanks and a leak detection pipe system. The recovery section tanks are placed in bunds and on solid concrete foundations which were verified via interview with staff who were present when the plant was constructed and tanks were replaced. The new conical cyanide sparging and liquid storage plant tanks are placed inside a concrete bund and installed on legs. The secondary containments for the process solution tanks have the capacity 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 bunded areas are equipped with sump pumps from where the spillages and water is returned to the process. The new reagent strength cyanide lines have been located inside a launder system with leak detection / collection tanks. The Intensive Leach Reactor (ILR) pregnant solution lines and the barren eluate solution lines used for cyanide sparging operations are also placed inside the launder. The low strength cyanide slurry lines are placed above bunds, and where these are routed across soil, form part of the shiftly inspections. Low strength cyanide solution and slurry lines are either rubber lined or made from HDPE as preventative measures to minimise risk of leaks. The complete slurry line is rubber lined to minimise the risk of pipe failure resulting in leaks. Pipeline inspections are conducted weekly by the maintenance superintendent, and the security staff patrol the line daily as part of spill prevention measures. Pipelines are placed in an unlined trench equipped with paddocks to collect any leaks. All cyanide tanks and pipelines are constructed of mild steel, stainless steel, and HDPE.

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

X in full compliance with

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

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The Obuasi Gold Plant was built in phases over the last 20 years and as a result, some Quality Control and Quality Assurance records are not available. Consequently, the plant is subject to regular Asset Integrity inspections by professional engineers. Three reports on the Biox[®] CIL and the Float CIL tanks were completed following inspections of the sections by corporate professional Structural Engineers. The reports concluded that the two sections required urgent intermediate refurbishments to be able to operate safely, and



this work was successfully completed. The new Biox[®] CIL plant was constructed and commissioned. Action plans for implementation of the recommended interim repair measures were drawn up and subsequent completed sign off certificates for Biox CIL tank 54 and 51, float CIL tank 8, 7 and 6 were available. This date falls within the Obuasi Flotation CIL & BIOX CIL Tanks Integrity Assessments concluding that, "...It is a temporary solution which is designed to extend the life of tanks by 18 – 24 months. The basis for this note is that a new plant will be in operation within that time period and the old plant will be de-commissioned and demolished..." (The decision was made to replace the tanks with a new CIL section which was commissioned within the 18 to 24 months of the report dated 26 March 2012.) This required the new plant to be commissioned by 26 March 2014. The new Biox CIL circuit was covered by a QA/QC Project Quality Plan, supported by full QA/QC documentation.

The Report by the Structural Engineer for the existing flotation CIL tanks concluded that "...they are at an acceptable level of risk for the time being and structurally sound" and, "...the visual inspection of the cyanide circuit also did not raise any concerns from a structural point of view..."

A new cyanide sparging and storage facility was designed and constructed and commissioned during October 2013. The TMP (construction company) Ghana quality system management manual, which included a Quality Assurance/Quality Control policy, control of documents, quality control, purchasing, dispatch receiving and storage, completion training and awareness, and management review, was sighted and reviewed.

The TSF Audit report dated June 2013 covering both TSF's, contains recommendations for on-going action. The latest report indicates that the TSF will reach the end of its design life at the end of 2015 (Ghana EPA instruction). Lower production rates are being experienced and a review of the life of the dam including operating parameters and design parameters is being conducted. Quarterly Monitoring meetings are being conducted where action plans are followed up on and operating parameters reviewed / confirmed. A TSF stability review was conducted by external engineers and factors were found to be within required specifications.

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:

Procedures for environmental monitoring (including sample preservation requirements, cyanide species to be monitored, chain of custody procedures, sample locations, and a sample sheet) of surface water and borehole water, developed by competent persons, were sighted and checked. Sampling takes place daily and monthly and daily operational wildlife mortality inspections are undertaken.

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

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

Basis for this Finding/Deficiencies Identified:

The site has a cyanide decommissioning procedure which also cross-references to the AngloGold Ashanti corporate requirements of the Cyanide Code Guidelines that will be implemented and adhered to for all cyanide-related work. The procedure also covers an implementation schedule for 12, 6 and 3 months prior to closure, including specific tasks to be undertaken during each period. Review occurs annually.

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 ☐ in substantial compliance with **Standard of Practice 5.2**
☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

Decontamination for all cyanide facilities is specified and an amount of US\$ 156,710 is listed which includes decontamination of all tanks, pipes and pumps and includes the new sparging plant. The decommissioning procedure requires annual review and inclusion of the latest LOM data and estimated closure data. A third party review is done every 3 years. A Statement of Financial Strength (including financial information, and ratios and financial test requirements) covering 2011 prepared by accounting firm, Ernst and Young, for all of AngloGold Ashanti's Continental Africa Region operations (including Obuasi) confirming the company's self-financing ability to undertake cyanide decommissioning commitments, prepared by a registered auditor and chartered accountant, was sighted.



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

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

X in full compliance with

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

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The site has 55 cyanide standard operating procedures (SOPs) including process procedures and 14 specific engineering procedures, 15 cyanide sparging plant SOPs, 22 environmental procedures and 13 emergency procedures. The procedures include PPE requirements and appropriate pre-work inspections. Tailings Storage Facility (TSF) specific procedures and operating practices include the Sansu (South) TSF Operations Manual containing operating procedures and a management plan, principles of operation, inspections and monitoring, emergency management plan and cyanide management. (The Pompora North TSF Operations ceased operations in 2010 but is still being monitored.)

Quarterly TSF monitoring meetings are held, attended by the AngloGold Ashanti Regional Tailings Engineers where action plans are followed up on and operating parameters reviewed and confirmed. The annual TSF Audit report dated June 2013 covering both TSF's contained on-going recommendations for actions.

All tanks, bunds, pond, impoundments, pipelines, valves and pumps are on the eMESA Planned Maintenance System (PMS) and are inspected on a regular basis. Wildlife inspections are carried out daily. Thickness testing is conducted on tanks based on the scheduled tank draining schedule. Operational and PMS inspection frequencies vary from shift to daily, weekly, monthly, six weekly, six monthly and annually.

A change management procedure covering health, safety and environment is in place and operational and examples of major and minor change management exercises indicated that the process is used effectively.

Regular Health and Safety and Environment committee meetings are held which include worker safety representatives, and supervisory staff and management. Topics discussed include reports from safety reps, emerging Health & Safety issues and concerns, lessons learned from incidents, and H&S directives. A six monthly, mine wide safety meeting is held which includes issues elevated from process based safety meetings. Weekly general safety meetings, include the whole workforce and have specific topics and briefs by different discipline leaders with opportunities for questions from the floor. Risk assessments include supervisors, design staff, operating staff and engineering staff, daily section and departmental safety meetings are held and were confirmed during the interviews with the employees.



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

X in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 6.2**

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The plant controls the pH at 10.5. A procedure for abnormal conditions at the pre leach, CIL or residue tanks is in place and, under definitions of abnormal conditions, there is an item which covers pH falling below 10.5. The plant uses 11 PAC 7000 portable personal HCN monitors, 4 Xam 7000, and 1 Xam 5600 HCN monitors. There are 4 fixed HCN gas monitors being used at the new Sparge plant, 1 at the Biox[®] CIL, 1 at the Float CIL, and 1 at the back-up cyanide mixing area. The South TSF staff have been issued with a PAC 7000 personal HCN monitor. Hotspot surveys identifying flash points are done weekly by the Cyanide Champion. HCN gas monitoring Calibration record files were reviewed and the manufacturer requires calibration every 6 months.

On-going inspections and checks are also used to monitor and check facilities and emergency response equipment functioning and checklists are used. Safety equipment such as safety showers, low pressure eye wash stations, and fire extinguishers are numerous and adequately signposted in English. MSDS are posted in the cyanide emergency cabins, cyanide sparging areas and solid cyanide storage area. The local site written language is English and the spoken language is English and Twi. First aid protocol is available in the cyanide first aid cabins.

Warning signs on the plant includes no eating and drinking, cyanide hot spots, no smoking, no open flames, cyanide warning signs, and PPE requirements. Dosing points at the CIL are clearly labelled. The reagent strength pipelines in the main plant and the new sparge plant and other cyanide pipelines are labelled and show direction of flow. The process slurry and low strength cyanide solution / slurry pipes are not labelled, but induction and task training defines the CIL, elution, recovery and residue sections and associated pipelines as containing cyanide. Accident and incident reporting and investigation procedures, based upon the site safety reporting requirements, were found to be in place and effective.

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

X in full compliance with

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



☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

There is an Emergency Preparedness and Response Plan in place. The main plant has medical oxygen resuscitators, antidote kits (stored in fridges), Ambu-bags, SCBA sets, and water points are readily available. All communication is done using radios, cell phones (key employees), a manual siren, and an electric emergency alarm is triggered by the control room when an emergency is reported by radio. The new Sparging plant has antidote, oxygen resuscitators, SCBA sets, radio base station, alarm system, and water points. The TSF uses telephones and radios for emergency communication and has an emergency cabin including oxygen and antidote. The TSF is a low cyanide concentration operation and the plant will provide emergency support in case of cyanide emergencies.

Antidote is ordered 3 months before the expiry date and is monitored and coordinated by AGA Corporate Office in South Africa. A first aid inspection register, procedures and reports are in place and Antidotes are stored in fridges as per the manufacturer's requirement. Cyanide equipment is regularly checked.

All plant staff are trained in the St Johns first aid course and an emergency team is in place on the plant trained in advanced cyanide first aid (confirmed in interviews). A 24 hour manned first aid station is in place on the plant. The captive Obuasi mine hospital treats cyanide patients, the ambulance service transporting patients from the plant to the hospital in Obuasi is operated by the mine transport department and is situated close to the plant site. The hospital is equipped with cyanide treatment facilities and there are trained staff available to treat cyanide cases. The hospital will decide on further action which may include evacuation to outside intensive care facilities in Kumasi and Accra.

The captive mine hospital is used for all cyanide cases. The hospital is also included in mock drills. A procedure is in place for Notification of Emergency Services and Plant Management of Cyanide Exposures or Medical Emergencies. The hospital is over-inspected by the plant for cyanide PPE and cyanide emergency treatment equipment and trained staff. The hospital staff is trained in cyanide emergencies by the plant staff.

All mock drills are arranged and planned by the plant Cyanide Champion who is part of the training department. Various drill reports were reviewed including a full cycle drill at the sparging plant, a joint drill with Transporter, Vehrad, a gassing man down drill, and a full cycle spill and man down drill (to the hospital) covering a cyanide briquette spillage in front of plant reagent shed. Training officials were present at all drills. Reports include lessons learned such as a double locking system failure at sparging plant, and PPE donning needs to be reassessed at the hospital.

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

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



X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The plant has developed site-specific emergency scenarios and responses for its Emergency Preparedness and Response 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. The ICMI certified transporter has a cyanide handling guide and transport management plan which addresses transport related emergencies en route. The plan also covers clearing site personnel from the area of exposure, use of cyanide antidotes and first aid measures for cyanide exposure and cross-references to Chapter 37 of the AngloGold Ashanti Cyanide Guidelines for Africa, which includes control of releases at their source, and containment, assessment, mitigation and future prevention of releases.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness and Response Plan is discussed during Health and Safety meetings, feedback sessions after the mock drills, and during training. The zone of influence map confirms that local communities are outside the zone of influence and evacuation is thus not an issue. The captive mine hospital and ambulance service is involved in mock drills as well as through training in emergency response and cyanide first aid, feedback and inspections by the plant Cyanide Champion.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness and Response Plan details roles and responsibilities of the emergency response team. The emergency equipment 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 on where external resources and skills might be needed. Periodic drills involving stakeholders ensure that roles and responsibilities are understood and clearly implemented. No outside responders are used during emergency situations. Communities do not take part in the emergency responses, but are given information on cyanide.

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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness and Response Plan includes details for appropriate emergency notification and reporting (internal and external) and the call-out procedure and contact information lists which are updated regularly. Internal and external communication (including the Media) is dealt with in the Plan.

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**
☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness and Response Plan covers clean-up, remediation and a neutralisation methodology and cross references to the appropriate site procedures. The use of neutralization processes and materials is clearly covered, as is disposal of contaminated materials. Alternative drinking water supply provision is also included. Treatment chemicals use is prohibited in cyanide procedures unless human life is threatened. Emergency sampling is covered in procedures.



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

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness and Response Plan includes the requirement for review and revision every two years or after an actual cyanide emergency or a mock drill which identified deficiencies in the plan under the section entitled Plan Maintenance and Change Management. Drills incorporate identification of problems, action and follow up on completion.

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 employees, contractors, visitors receive induction including cyanide hazard recognition before entering the plant. The induction program. "Sodium Cyanide Awareness and Safe Handling Training" includes cyanide recognition, hazards exposure emergencies, different forms of exposure to cyanide, and cyanide first aid. A pass mark of 70% is required. The training matrix, schedules and course attendance records were reviewed. Refresher training is scheduled to be done every 12 months. Refresher training was checked during interviews and the review of the interviewee training records. Training records are kept for at least as long as the employee works for the company but the aim is not to dispose of any hard copy records. The electronic matrix is archived and kept. Records including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.



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

X in full compliance with

The operation is ☐ in substantial compliance with **Standard of Practice 8.2**

☐ not in compliance with

Basis for this Finding/Deficiencies Identified:

The main plant task training is done, on-the-job, by the supervisor (using the task procedures) who also conducts planned job observations (PJO) on the trainee. A training matrix is in place for implementation, and all employees are trained as per the job requirements in the training matrix. A formal system is in place where the training officers sign off the competency of the on-the-job training using a PJO. The Cyanide Appointees (i.e. those who deal with high strength cyanide and are emergency team members) receives advanced cyanide training. On-the-job training is done by experienced personnel using the task procedures which contain the written elements of the job. The head of training, is a qualified Metallurgist with 3 years training experience and the Cyanide Champion (who was a training officer, is part of the training team and completed the "Train the Trainer" course). All employees, contractors and visitors receive general induction which includes cyanide awareness before being allowed on the plant. Plant Attendants receive on-the-job training under the supervision of a supervisor and are only allowed to work with cyanide after being assessed as competent by the supervisor and signed off by the training officer who issues a certificate. The Training Officers conduct on the job PJO's, followed by retraining on any task deficiencies that may arise. A significant portion of the workers are illiterate (30%) and the PJO is the most appropriate method to check for competence as part of ongoing refresher training. Planned Job Observations (PJO) are done by the Training Officers and used to check the effectiveness of the worker on the job. Training records are kept for at least as long as the employee works for the company but the aim is not to dispose of any hard copy records. The electronic matrix is archived and kept. Records including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

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

X in full compliance with

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

☐ not in compliance with



Basis for this Finding/Deficiencies Identified:

All plant employees are trained in the cyanide awareness course which includes the required action if a cyanide leak or release is detected as first responder. All plant employees are trained to administer oxygen as part of the basic cyanide training and emergency response. The cyanide appointees are part of the emergency team who receives advanced cyanide emergency training which involves advanced first aid, rescue training, advanced cyanide first aid and firefighting, and will respond to exposure incidents. The Emergency Response Team receives refresher training at least annually. Mock drills are conducted bi-annually including spills, gassing, splashes and solid spills. An emergency response team with advanced cyanide training is in place responding to all emergencies. Senior Managers in the plant take over the role of ER Coordinators. All cyanide emergencies are treated at the captive Obuasi mine hospital in the centre of town. The ambulance is managed by the transport department located close to the plant. All mock drills are arranged and planned by the plant Cyanide Champion who is part of the training department. Various drill reports were reviewed including a full cycle drill at the sparging plant, a joint drill with Transporter, Vehrad, a gassing man down drill, and a full cycle spill and man down drill (to the hospital) covering a cyanide briquette spillage in front of plant reagent shed. Training officials are present at all drills. Reports include lessons learned such as a double locking system failed at sparging plant, and PPE donning needs to be reassessed at the hospital. Training records are kept for at least as long as the employee works for the company but the aim is not to dispose of any hard copy records. The electronic matrix is archived and kept.

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 meetings are two-way dialogue sessions involving both dissemination of information and the answering of questions on cyanide.

Various communities were identified as being potentially affected by the operations in the Obuasi area and targeted for dialogue. These Communities were identified as: Anyinam, Sansu, Apitikoko, and New Bidiem, the larger towns.

Schools were the main dialogue focus for 2013. PowerPoint presentations were given to Abundant Grace Junior High School (113 attendees), Apitikoko Junior High School (38 attendees), Bidiem Experimental Junior High School (114 attendees), and Sansu Junior

High School (75 attendees). Questions asked included ones on cyanide security, cyanide in the soil, safety concerns, emergency preparedness and response, cyanide in the Ozone layer, and cyanide first aid. Photos and videos were taken during the presentations which are normally given using the local dialects and English. Community programs have been running for a number of years and a schedule was sighted for 107 committee meetings for 2011. Sighted examples of a meeting (20 Attendees), with opinion leaders (e.g. Politicians, Chiefs, and Unit Committee Secretaries).

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 meetings are two-way dialogue sessions involving both dissemination of information and the answering of questions on cyanide.

Various communities were identified as being potentially affected by the operations in the Obuasi area and targeted for dialogue. These Communities were identified as: Anyinam, Sansu, Apitikoko, and New Bidiem, the larger towns.

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

X in full compliance with

The operation is

☐ in substantial compliance with **Standard of Practice 9.3**

☐ not in compliance with



Basis for this Finding/Deficiencies Identified:

A PowerPoint presentation of "Community cyanide awareness and education" is used as a basis for presentations and as a hand out to communities and other stakeholders, who require it. A Group wide Workforce Management Reporting System (WMRS) is used as an electronic reporting platform for all safety and environmental incidents, inspections and deviations. The incident classification (AngloGold Ashanti (AGA) management standard) covers Minor, Moderate and High and Major or Extreme. Classification of incidents is according to an integrated table included in the WMRS software. Communication with interested and affected parties is via guidelines in the site procedure and the Continental Africa Region (CAR) Cyanide Code Implementation Guide, Chapter 40. The appropriate incidents are reported in the AGA annual report, which is publically available in hard copy or on the Internet, and contains information on environmental and safety incidents, including any cyanide related incidents. The website link is:- <http://www.aga-reports.com/12/os/performance/cyanide-waste-management>

