INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Code Compliance Audit Gold Mining Operations

Recertification Summary Audit Report

AngloGold Ashanti Continental Yatela Gold Plant Mali

5th – 9th June 2012

Name of Operation:	Yatela Gold Mine
Name of Operation Owner:	AngloGold Ashanti – 40% IAMGOLD Corporation – 40% Mali Government – 20%
Name of Operation Operator:	AngloGold Ashanti
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Location detail and description of operation:
The Yatela Gold Mine is located in the Sadiola County, 65 kilometres from the Regional Capital, Kayes, in Mali. The mine's gold processing facilities consist of a Dry Plant and a Wet Plant.

Dry Plant
Run of mine (ROM) ore is fed into the primary bin (150m^3 capacity), which has a static grizzly preventing ore greater than 0.65 metre in cubic lump size from passing through. The ROM ore is drawn from the ROM bin by means of a hydraulically powered 2.0 metre wide apron feeder at the design tonnage of 600 tons per hour (tph.) (wet). This material is fed over vibrating grizzly feeder with 200mm aperture. Screened oversize material is directly fed into a C125 Nordberg Jaw Crusher with a 150mm gap. Jaw crusher product is screened again with a scalping screen at 60mm aperture. Oversize size is crushed in a 5½ ft Symons cone crusher with gap set on 50mm. This product is conveyed to a 1200mm conveyor (CV4 101). A belt weightometer and auxiliary equipment for tonnage control and accounting is fitted to this belt. The bulk cement facility is designed to pneumatically transport the cement to two 150t silos. The cement addition occurs after the secondary crusher at a measured rate from the cement silos.

Cement is added to the product at a rate of 18.5kg/t when stacking the first lift of the heap and 7kg/t when stacking the second lift or third lift of the heap. The crushed ore together with the cement is deposited onto the 1200mm wide agglomeration drum feed conveyor and transported to the agglomeration drum. A go-belt sampling station is

mounted on the inclined section of the agglomeration drum feed conveyor. A hammer sampler takes a primary sample of 7.5kg which is conveyed to a secondary rotation plate divider to produce a 37kg final sample in one 8 hour shift.

The agglomeration drum accepts feed at 600 t.p.h. (wet) through the 3.6 metre diameter x 10.0 metre long drum rotating at 6.95 R.P.M. Solution is distributed within the drum utilizing a pipe main and spray nozzles. The agglomeration drum agglomerates the feed material using cement as a binding agent into appropriately sized pellets, possessing the required mechanical properties to facilitate optimal heap stability and solution percolation through the heap.

The heap leach facility currently consist of 18 leach pads. The pad has been designed to have an impermeable clay underliner on which a 1.5 mm HDPE liner is placed. The HDPE liner is covered by a 600 mm cushion layer to protect the liner from damage as a result of the movement of conveying equipment on the pad. Allowance has been made for a gravel roadway on each cell to facilitate drainage and prevent HDPE liner damage as a result of conveying equipment becoming bogged in a cushion layer during the wet season. Each cell is also equipped with geo-technical drain pipes to facilitate cell drainage.

The pad has been constructed using the expanding pad methodology. The compressive strength associated with the agglomerates necessitates the use of a stacking system to construct the heap. The agglomerates are conveyed via an overland conveyor followed by a set of portable grasshopper conveyors to a radial stacker that is used to construct the heap.

Wet Plant

The Yatela Heap Leach circuit is a two-stage leach process. Barren solution from the CIS recovery circuit is pumped to previously leached areas of the heap to leach residual gold remaining in the ore (Secondary leach cycle). The enriched solution percolates through the heap and reports to the intermediate pond. Intermediate solution is then pumped to freshly stacked ore (Primary leach cycle) and the resultant solution reports to the pregnant solution pond for gold recovery.

In order to facilitate solution management six ponds have been constructed namely:- pregnant, intermediate, barren, excess, settling and detoxification solution ponds. Three main pumping systems are employed to facilitate solution management. The irrigation system consists of main headers running from the ponds down the entire down slope edge of the heap. Sub-headers run across the top of the heap in order to distribute lixiviant to the cells. Finally, drip irrigation piping is used to irrigate the heap.

The cyanide storage, make up and dosing system have been designed to ensure the safe dosage of cyanide solution to the heap leach operation. Evidence of calcium carbonate scaling was encountered during the test work program and consequently an anti-scalant dosing facility has been incorporated into the design

A carbon in solution (CIS) circuit is installed for gold adsorption. The CIS circuit consists of nine sealed carbon vessels that operate in a carousel mode. Two of the CIS columns can be used for scavenging in the event of having to discharge excess solution to the

environment via the hydrogen peroxide detoxification circuit. Elution, regeneration, electro winning and smelting do not occur on site at Yatela, the carbon is rather transported and toll treated at the Sadiola Hill Gold Plant. The loaded and regenerated carbon is transported between the Yatela heap leach operation and the Sadiola Hill Gold Plant respectively by means of a carbon tanker.

The elution and regeneration of the Yatela carbon along with the subsequent electro-winning and smelting of the cathode sludge take place at the Sadiola Hill Gold Plant. The initial Sadiola Hill Gold Plant carbon treatment facilities were not sufficient to treat both Sadiola Hill Gold Plant and Yatela loaded carbon, consequently allowance was made for a certain amount of upgrading of the initial circuit.

Auditor's Finding

This operation is

X in full compliance

☐ in substantial compliance

☐ not in compliance

with the International Cyanide Management Code.

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

Audit Company: Eagle Environmental

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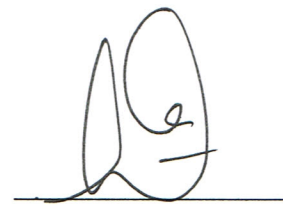
Names and Signatures of Other Auditors:

Name : Dawid M. L Viljoen Signature  Date: 25/1/2013

Dates of Audit: 5th – 9th June 2012

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.

Yatela Gold Plant  25/1/2013

Facility Signature of Lead Auditor Date

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**

□ not in compliance with

Basis for this Finding/Deficiencies Identified:
The Supply Contract was changed to Samsung, a Cyanide Code consignor, who obtains cyanide briquettes from cyanide producers, TaeKwang (ICMI certified on 18 March 2011) and Tongsuh (ICMI certified on 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 AngloGold Ashanti Yatela Gold Mine, in place. 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. There is also a Samsung Transport Management Plan in place which covers normal, abnormal and emergency situations during cyanide transportation.

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. 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 Mali. Transporter, Bollare Africa Logistics SDV Senegal, is certified under the Samsung West Africa supply chain.

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 offloading, mixing and storage facilities were designed and built, in accordance with sound and accepted engineering practices, with materials appropriate for use with cyanide and are located in concrete bunds away from people and surface waters. The Area was inspected by Dr F Wagener, Civil Engineer, (Pr. Eng.) who issued a fit for purpose report. The audit reconfirmed the documentation checked during the certification audit. The cyanide is also stored away from incompatible materials.

Current solution mixing and storage tanks at the leach are equipped with level indicators. The mixing tank level is interlocked with water valves and the storage tank is equipped with high and low level audible alarms alarming at 85% level, pump stops at 15% for low levels. Cyanide is stored in closed, modified sea containers, not equipped with ventilation. Solid cyanide is stored in the original packing which includes wooden boxes, and plastic liners in a bulk bag. The containers are stored under roof and are well ventilated around the outside of the containers. The containers are placed within a fenced and locked area. The fenced area is within a fenced plant area but access to the plant area can be obtained via the heap leach section. The mixing and container destuffing procedures include the requirement for the wearing of protective equipment and the measuring of HCN gas is specified.

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:
The cyanide offloading and mixing procedures are detailed, spelling out PPE requirements, use of a buddy in the process, and clearly sequenced to prevent spillages and accidental releases during mixing and transfer processes. There are specific procedures for the handling and disposal of empty cyanide containers which include the use of a fenced, locked burning area and set burning times.

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 162 procedures in place covering the whole of the processing plant from crushing to the heap leach operations. Maintenance procedures include 8 cyanide engineering maintenance and inspection procedures. The site was certified for OHSAS 18000 and ISO 14001 management systems in 2011. Cyanide levels in the pregnant, intermediate and barren ponds could exceed 50 ppm and the ponds are covered by bird balls as a protection measure. A Bird patrol procedure requires the use of bird balls at all times for the pregnant, intermediate and barren ponds where the WAD CN values could exceed 50 ppm. The excess pond cyanide level is controlled at < 10ppm cyanide. Pond levels are managed to include seasonal rainfall / water requirements. The agglomeration section cyanide level is controlled at 1 500 ppm NaCN. Procedures at the heap leach pads include actions to prevent pool formation. Surface discharges are subject to detoxification to reduce cyanide levels to be < 0.1ppm free CN, 1 ppm total cyanide and 0.5ppm WAD cyanide, which are the design parameters in the Detoxification system. Operationally, heap leach and wet plant inspections, including bird mortality checks, are conducted and the shiftly log sheets are summarised in the daily production summary. For engineering, the planned maintenance system for the cyanide facilities in the wet plant includes a manual based planned maintenance schedule. Inspection forms specify frequency of inspections as well as detailing the equipment to be inspected. Thickness testing is included in the annual PMS inspection schedules. A comprehensive set of procedures support the inspection regime. Operational monthly inspections include the Agglomeration drum, overland conveyors, pads, and the wet plant and reagents. There is also an annual corporate heap leach audit. Cyanide plant pipe work thickness tests are conducted annually. Wildlife inspections are carried out daily and log sheets show that the staff are sensitive to bird life behaviour changes during wet and dry season. There is a GoldSim probabilistic water balance in place, and no scenario has been identified where the need has been highlighted to shut down the plant to prevent overtopping. The operating parameters for the excess dam level will accommodate normal and abnormal operating conditions including the maximum rainfall events. Emergency options include the use of the redundant KW18 pit to store excess solutions (detoxified beforehand). Thus there is no need to stop the plant under normal and abnormal conditions. Engineering has a Manual PMS control system which is backed up by electronic spreadsheet data. The inspection frequencies vary between weekly, monthly, 3 monthly and annually. Condition monitoring is also practised. All equipment is on a monthly inspection schedule and recorded. Infrared hot spot monitoring is used to identify potential breakdowns and conduct preventative maintenance.
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.

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:
Cyanide consumption requirement tests are conducted monthly using column leach tests (for cyanide addition to agglomeration and leach pads). Consistent recovery / cyanide consumption is evident from the column tests. Original and current cyanide consumption prediction is 140 - 220 g/t dry to wet season. Column tests indicate sulphide blends require higher cyanide consumption. Column test work is conducted routinely using samples taken from the agglomeration drum product belt on duplicate columns. Results for 2010 and 2012 were reviewed. A comprehensive data base of cyanide values in the various heap leach solutions are monitored and related to recovery to establish potential relationships. Optimisation test work indicates enhanced recoveries at a finer crush size, with the possibility of lowering cyanide concentrations and subsequent cyanide consumption.
Automatic control was considered in the past, but the simplicity of the operation did not warrant the cost. Cyanide feed concentration to the feed solution for the agglomeration drum is controlled at 1 500ppm by changing addition rates manually, based on the results of a 10 minute to two hourly manual titration sample regime.

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:
There is a comprehensive, GoldSim, computerised probabilistic water balance model in place, set up by external Consultants and updated and run, internally, on a monthly basis with updated deposition and rainfall data. The design storm event is included in the stochastic calibration of the rainfall used in the model and nearby Kenieba historic data was used to estimate the 1:50 and1:100 storm events. The evaporation data used was taken from measured evaporation at nearby Kayes, as well as from measured monthly data from the mine operations. The site has a Heap leach operation thus, no decant is used and no seepage to groundwater exists, as all leach pads and trenches are lined. There is no continuous discharges to surface water and the system is in water deficit and therefore cannot afford to lose water. The GoldSim scenario reports considered 24 hour power

outages. No problems were identified running the scenarios of power outages on the plant and heaps. Sufficient capacity exists in the excess dam to accommodate any run-off from the leach pads and rainfall during power outages. The model differentiates between scenarios within the different seasons with August being the highest risk period. The plant is equipped with 4 Generator sets, with 2 sets available on standby on a continuous basis. The installed power exceeds the plant's power requirements. Operating parameters for the heap leach pond levels and the water usage strategy are updated, based on the monthly evaluation and recommendations, using the GoldSim water balance model, as well as specific conditions.

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 leach pads are operated above 50 ppm WAD and special protection measures include ponding control to prevent ponding on leach pads as well as daily inspection logs. Leach solutions are applied using dripper systems onto the heap. The operation uses grasshopper conveyors to stack the ore into conical shapes on top of the heap, thus minimising pond formation. No ponding was evident during the site inspection. Shadow netting is used to cover any ponding, should it occur, and ripping is used to restore percolation, as needed. A crew of bird controllers are employed, supported by a bird patrol procedure, to handle abnormal situations. Measures appear to be working well, as there have been no bird mortalities detected since certification.
The leach production ponds (Barren, Intermediate, Pregnant solution ponds) can potentially operate above 50 ppm WAD and are equipped with bird balls to prevent bird access. A crew of bird controllers are employed, supported by a bird patrol procedure. Additional bird chasers are employed when open spots, not covered by bird balls, are noticed (This is dependent on pond levels during high rainfall periods). The Bird Patrol Procedure specifies that bird balls will be maintained at all times on the pregnant, barren and intermediate solution ponds, with a reserve supply of balls maintained at all times. The area is fenced to prevent livestock from entering the areas and special bird drinking pools were established to lure birds away from the heaps and ponds.

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:
There is no discharge to surface water. Discharges of excess water from the excess pond, via the detoxification plant, are only to a redundant satellite pit, KW18, for storage, following detoxification. The target WAD concentration in solution to KW18 is <0.3 PPM WAD. The discharge to the pit forms part of the Golder GoldSim water modelling. All the values sighted were at limits of detection.
No discharges to surface water take place thus there is no mixing zone. Samples are, however, taken when the river flows during wet season. These were all at the limits of detection 0.01 ppm WAD in all up and down-stream samples since certification. This was determined by monthly environmental samples, externally analysed at Yatela, Bamako Government Department, and ALS Vancouver.

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
All leach ponds are lined, as are all ponds and solution corridors. The design of plant specifies liner construction and civil compaction parameters. All leach pads are equipped with leak detection and are formally inspected for level and leaks daily. The agglomerate conveyor system, carrying cyanided ore to the heap leach pads, where it crosses soil, is lined.
At the plant, all ponds, as well as pipe routes, are lined with plastic liners preventing any seepage to ground water. All ponds are equipped with leak detection and are formally inspected for level and leaks daily. Piezometers are in place and monitoring indicates values below limits of detection. The beneficial use for water is for domestic consumption. The legal limits are 1mg/l free cyanide and 1mg/l total cyanide as CN. As per World Bank standards, borehole data results are below limits of detection of 0.01 ppm WAD CN.

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 cyanide make-up area is equipped with a bund. All tanks are placed on solid concrete foundations and all pipe lines are contained inside lined areas. The Cyanide make-up tanks are placed on solid concrete foundations, the agglomeration drum is installed above a bund to contain any solution leakage, and the CIS tanks are placed inside a concrete bund. The heap leach pads are all constructed on an impervious geomembrane to collect all solutions emanating from the leach operation. All pipelines from the leach pads to the solution ponds are placed on liners or inside lined solution trenches, draining into the lined solution ponds. The plant is designed with sumps and pumps returning all spillage to the process. All bunds overflow to the solution ponds adjacent to the bunded areas. At the plant, cyanide dosing pipes are installed above a lined area with all spillages draining into the production ponds. All other cyanide solution pipes are installed above lined surfaces, draining into the solution corridor. At the heap leach, cyanide dosing pipes are installed above lined solution trenches with all spillages draining into the production ponds. The agglomerate feed pipe is contained in a pipe within a pipe system, draining into the agglomeration sump in case of leaks. All cyanide tanks and pipelines are constructed of mild carbon steel and heap leach irrigation solutions are fed via HDPE and Yelomine pipes.

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:
No new facilities installed in the plant itself or at the heap leach area. Original design documentation reviewed during the certification audit was confirmed. Regular external Heap Leach Facility Audits confirm that there are no visible stability concerns and this has been reinforced by the opinions of two competent persons. The lack of a formal, recent, stability analysis has been noted but this is scheduled before the end of 2012.

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 and chain of custody procedures) of surface water and borehole water, developed by competent persons, were sighted and checked. The site Environmental Management Plan includes cyanide sampling categorisation, cyanide species monitored and frequency of measurements. Category 1: Water samples from in and around cyanide areas are sampled monthly; water samples from drinking sources are sampled weekly; and Category 3: all other water samples (including cyanide) are sampled quarterly. Sample frequencies are deemed adequate by auditors to characterise the medium monitored.

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 plant decommissioning procedure which includes a cyanide facility decommissioning plan. The Plan includes a schedule for mine closure. The procedure is reviewed annually and as changes necessitate reviews.

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:
The cyanide facility decommissioning plan, provides funds for the plant and heap leach decommissioning and the costs are updated annually. There is currently no jurisdictional

financial assurance mechanism required other than an in-principle requirement. The operation has established its own cash based insurance mechanism. An affirmation letter confirming that sufficient funds were available for cyanide decommissioning was sighted, signed by the Yatela Closure Project Manager, the Technical Services Manager, the Managing Director and the Finance Manager. A Statement of Financial Strength (including financial information, and ratios and financial test requirements) covering 2011 prepared by accounting firm, Ernst and Young, for AngloGold Ashanti's Continental Africa Region operations 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 162 procedures in place covering the whole of the processing plant from crushing to the heap leach operations. Maintenance procedures include 8 cyanide engineering maintenance and inspection procedures. The site was certified for OHSAS 18000 and ISO 14001 management systems in 2011. Samples procedures such as cyanide make-up, decontamination of cyanide equipment, engineering maintenance, confined space entry and heap leach solution pipe connection were reviewed to ensure that they contained appropriate controls to minimize worker exposure and pre work inspections and PPE requirements. 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.
Weekly communication meetings and daily safety meetings (toolbox talks) are used to discuss safety issues and procedures. Interviews with personnel confirmed that safety issues are communicated through the toolbox meetings and weekly meetings and Planned Task Observations (PTOs). All new procedures are circulated for comments.

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 pH is measured during mixing operations. Cement is added to the agglomeration feed to assist with agglomeration as well as pH control in the heap and solutions (pH is normally high at 11.5). A site visit confirmed pH measurements of all heap solutions, and the pH of make-up water to be above 10.5, adjusted with NaOH before make up commences. Hotspot surveys are done monthly and surveys for 2010, 2011, 2012 were reviewed. There are no fixed HCN Gas monitors used on site, but there are 8 personal HCN gas monitors in use on site. All calibrations are done at Yatela according to the planned maintenance schedule. The adjoining Sadiola site Cyanide Champion is trained to calibrate units, and the manufacturer requires calibration to be done 6 monthly. On-going inspections and checks are also used to monitor and check facilities and emergency response equipment functioning and checklists covering three years since certification were sampled. Safety equipment such as safety showers, low pressure eye wash stations, and fire extinguishers are numerous and adequately signposted. MSDS are available in English and French.
Eating and drinking is only allowed in dedicated areas and this is indicated on signs and trained and reinforced during annual induction of contractors and plant staff. Cyanide pipelines are colour coded, and labelled with appropriate description and directional flow. 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, 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:
Radios are used for normal and emergency communication There is a fully equipped Emergency cyanide PPE container, opposite the cyanide mixing and make up area. Other first aid units placed at various locations on the plant are supported by man down alarms. All safety showers are equipped with audible alarms. Antidote kits are all stored in fridges, as per manufacturers recommendations, at the Main store, Mixing and storage, PPE container, the Dosing area, and the Laboratory. Antidotes are supplied via the Yatela medical clinic and replaced on a schedule. 3 SCBA sets are located in the emergency trailer for use in rescue operations. Running water available at all cyanide emergency

locations. Cyanide emergency boxes are also placed at the heap pad operations, the foreman's office and adjoining the agglomeration drum. Antidote kits are also all stored in fridges. All emergency stations were checked during site inspection. Inspection lists for the antidotes, oxygen BA sets, safety showers, oxygen cylinders, and first aid boxes were checked, confirmed for the whole plant, and sampled for the three years since certification.

The medical clinic at the mine village site is 5 to 7 minutes away from the plant and is equipped to handle cyanide emergencies. A professional nurse, trained in cyanide treatment, as well as there being 2 local doctors, are on site at Yatela. The plant has trained cyanide emergency response teams on shift to provide immediate response to cyanide incidents. A Procedure includes transport to the local clinic, from where the patient is transported to Sadiola Clinic 20km away, which has four doctors, and where a further decision on treatment, which may include evacuation, will take place. Cyanide equipment is regularly checked and tested and mock drills are held regularly on site. Man down drills are used to assure that emergency teams and the medical facility are competent and equipped to handle emergencies.

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 site has an Emergency Preparedness and Response Plan with supporting procedures files and Master files of this Plan are placed at strategic positions in the operation. A Procedural HAZOP study was conducted on emergency scenarios for Yatela Gold Plant and responses in the Plan are based upon this study.

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 workforce was involved in the ERP plan development through various Risk Assessments. The plant provides the opportunity for cyanide awareness and emergency training for the village cyanide committee, which has included a plant visit (minutes are kept of training). The representatives in the committee are the main contacts for communicating any cyanide emergencies to the village. The Yatela Mine uses its own captive clinics at Yatela and Sadiola who are involved in mock drills to involve them in the ERP process. Local response agencies are not to be used in cyanide emergencies as they are not equipped or trained to deal with these types of emergencies.

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 ERP details roles and responsibilities of the emergency response team. The on-site team commander role is taken on by the plant manager or the plant engineer, based on availability, and the explicit authority to commit resources is part of their managerial authority, in liaison with the managing director. Emergency response teams are identified by shift and contacted via ERP processes. 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 where external resources and skills might be needed. Periodic drills involving internal and external 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 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 Response Plan covers clean-up and remediation under sections entitled Neutralisation procedure (Plant) and Neutralisation procedure (Heap leach). The use of neutralization processes and materials is clearly covered, as is disposal of contaminated materials.

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 ERP includes the requirement for review and revision on an annual basis 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 site personnel are given basic induction and basic cyanide training. The training matrix specifies required training for all plant employees and includes the requirement for cyanide awareness and cyanide basic first aid. This is further indicated by a badge, worn by the employees, containing the expiry date of training. All visitors are given site induction including cyanide awareness. Refresher training is conducted 6 monthly for all personnel. During employee interviews, it was confirmed that there was a sound basic knowledge of cyanide hazards and understanding of basic cyanide awareness knowledge. Records are retained for 40 years as per the AngloGold Ashanti corporate standard. All training records since the mine commenced, have been retained.

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 electronic training matrix system contains training information on all employees. The records include required training courses, venue, trainer, start date, end date, competency, and date completed. Employees are trained using the SOPs and given a written test followed by an on-site questioning session. Illiterate staff are given an oral examination using Bambara (local language) supported by observation in the field. Training is done annually and if a procedure is revised, a special training session will be organised to train the revisions. Engineering staff are included in the training of the relevant cyanide modules, e.g. decontamination of cyanide equipment, confined space procedures, clearance certificates, and the "buddy" system. Training is conducted by a qualified trainer who is also a qualified Metallurgist. Planned Task Observations (PTOs) are conducted and if there are deficiencies, training is given as refresher / corrective action. PTO's are conducted weekly with supervisors required to do at least 6 per week. Records are retained for 40 years as per the AngloGold Ashanti corporate standard. All training records since the mine commenced, have been retained.

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

X in full compliance with

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

□ not in compliance with

Basis for this Finding/Deficiencies Identified:
All personnel are trained in cyanide first aid and cyanide release response as per the training matrix. Their response is to raise the alarm and evacuate from the area to the assembly point. A dedicated emergency response team (ERT) receives dedicated training involving cyanide releases and will deal with the spill. The cyanide emergency team receives specialised confined space rescue, emergency response team training, and industrial fire fighting training from external specialised service providers which is undertaken every 2 years. Mock drills are conducted 6 monthly involving all personnel. The Yatela mine clinic and Yatela clinic are involved in emergency response under the current plan. The appropriate community members are included in the plan and currently used in terms of their communication role. The SHE Officer is responsible for the drill report which includes an action log addressing deficiencies and concerns. Feedback sessions are held with drill team. Mock drills are conducted for training purposes with training officer present and drills are recorded on video for training review afterwards. Drill reports are in the form of a presentation including recommendations. Records are retained for 40 years as per the AngloGold Ashanti corporate standard. All training records since the mine commenced, have been retained.

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. A Village Cyanide Committee consisting of 2 men from each of the 6 villages is in place which meets quarterly and discusses cyanide matters. The following villages are included: Niamboulama, Alamoutala, Djinguilou, Sangafara, Yatela, Kourouketo. Community cyanide response committee minutes for 2010, 2011, and 2012 were sighted. All meetings included cyanide awareness training for committee members.

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. A Village Cyanide Committee consisting of 2 men from each of the 6 villages is in place which meets quarterly and discusses cyanide matters. The following villages are included: Niamboulama, Alamoutala, Djinguilou, Sangafara, Yatela, Kourouketo. Community cyanide response committee minutes for 2010, 2011, and 2012 were sighted. All meetings included cyanide awareness training for committee members.

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:
An information pamphlet, Yatela Gold Mine, which included a new chapter in English and French was sighted and includes a flow sheet of the plant and information on gold recovery and treatment. Yatela hands out a visitors information card containing written material on cyanide. A significantly high percentage of the local population is illiterate. Thus, information is disseminated via community members who are given briefing information in the French, Bambara and Malinke languages and who verbally communicate to illiterate community members.
The environmental incident reporting procedure defines incident levels and reporting requirements using the Incident Classifications (an AngloGold Ashanti management standard) of Minor, Moderate and High and Major or Extreme. Classification of incidents is according to an integrated table included in the procedure. The WMRS (Workplace Management Reporting System) is used for reporting incidents to the workforce. An Incident reporting and investigation procedure is used for reporting Health & Safety incidents. All high potential incidents will be relayed to the Managing Director who will decide on further reporting. The Protocol for Environmental Incident reporting indicates that an Environmental reportable incident is reported to the MD and Government, as

stipulated in the Protocol's process flow chart. The AGA annual report, which is publically available, contains information on environmental and safety incidents, including any cyanide related incidents. The 2011 AGA sustainability report, which is publically available, contains information on cyanide and the ICMI.