



SUSTAINABILITY
FUTURE GROWTH

Anglo Gold Ashanti Australia Ltd: Sunrise Dam Goldmine

Certification Audit: International Cyanide Management Code -
Gold Mining Operations Verification Protocol

Summary Audit Findings Report

May 2014



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INTERNATIONAL CYANIDE MANAGEMENT CODE

GOLD MINING OPERATIONS

AngloGold Ashanti Australia Ltd. Sunrise Dam Gold Mine
Certification Audit – Summary Audit Findings Report



20 May 2014



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INTERNATIONAL CYANIDE MANAGEMENT CODE

GOLD MINING OPERATIONS
AngloGold Ashanti Australia Ltd. Sunrise Dam Gold Mine
Certification Audit – Summary Audit Findings Report

20 May 2014

SUMMARY AUDIT REPORT

Name of Mine	Sunrise Dam Gold Mine
Name of Mine Owner	AngloGold Ashanti Australia Ltd
Name of Mine Operator	AngloGold Ashanti Australia Ltd
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LOCATION DETAIL AND DESCRIPTION OF OPERATION

The Sunrise Dam Gold Mine is located within the Northern Gold Fields region of Western Australia, some 220 km north-northeast of Kalgoorlie and 55 km south of the township of Laverton. The mine is situated immediately to the east of the hypersaline Lake Carey and is surrounded by numerous other small saline lakes. The process plant capacity is some 3.9 million tpa, subject to the characteristics of the ore feed. Ore, which is sourced from open pit and underground mine, is trucked to a run of mine (ROM) pad, prior to being blended and fed to the process plant. Milled ore is treated using a Carbon in Leach (CIL) process that involves the use of sodium cyanide to leach gold from the ore into solution, which is then recovered using carbon adsorption methods. The barren "tailings" slurry from the CIL is pumped to a tails thickener. The tails thickener underflow is pumped to a Central Thickened Discharge (CTD) storage facility at a density of 68% solids, with overflow water returning to the process.

The CTD can be classified as a low hazard facility in accordance with the Western Australian Department of Minerals and Energy "Guidelines on the Safe Design and Operating Standards for Tailings Storages". The process plant's sodium cyanide consumption ranges from 0.39 to 0.45 kg/tonne ore milled which equates to an annual consumption of some 1,620 tonnes. The operation uses 30% w/v liquid cyanide which is transported by rail from the suppliers production facility (located at Kwinana some 40 km south of Perth within the state of Western Australia), to a trans-shipping facility at Kalgoorlie, where it is then transported by road to the SDGM site. Solid cyanide is not transported to, stored, mixed or used at the operation

AUDITOR'S FINDING

This operation is:

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

with the International Cyanide Management Code Gold Mine Operations Verification Protocol.

The Sunrise Dam Goldmine operation has experienced compliance problems during the previous three-year audit cycle which are discussed in this report under Standard of Practice 4.4.

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Names and Signatures of Other Auditors



Peter Willcocks 22 December 2013



John Nielsen 22 December 2013

Date(s) of Audit

Inclusive of the period from 24-27 September 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.



Sunrise Dam Gold Mine
Name of Mine

Signature of Lead Auditor

20 May 2014
Date

Sunrise Dam Gold Mine



Signature of Lead Auditor

20 May 2014

PRINCIPLE 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.

in full compliance with

The operation is in substantial compliance with Standard of Practice 1.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The SDGM contract with the cyanide manufacturer, Australian Gold Reagents Pty Ltd (AGR), includes the requirement for the production facility to be certified as being in compliance with the Code. All cyanide purchased by SDGM over the certification period was supplied in liquid form and was manufactured at AGR's Kwinana production facility. This cyanide production facility was certified as fully compliant with the Code on 24 November 2010.



PRINCIPLE 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.

in full compliance with

The operation is in substantial compliance with Standard of Practice 2.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM has contracted AGR to supply liquid sodium cyanide to the operation and requires this supply to be facilitated through transport operations which are fully compliant with the ICMI Code of Practice. AGR is a certified transport operator under the Code. AGR's Western Australian Supply Chain was recertified as a fully compliant 13 June 2013. AGR's certified cyanide supply chain was the only operation used to transport liquid sodium cyanide to SDGM over the period of certification.

Standard of Practice 2.2

Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

in full compliance with

The operation is in substantial compliance with Standard of Practice 2.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation's only manufacturer/supplier/transporter of liquid sodium cyanide, AGR, is a signatory to the Code and its Western Australian Supply Chain was initially recertified as fully compliant on 13 June 2013. AGR's compliance with the Code includes verification of the adequacy of emergency response roles, capabilities and responsibilities which apply to all aspects of transport from AGR's manufacturing facility to the SDGM operation. The requirement to maintain Code compliance including emergency response roles, capabilities and responsibilities is included in the cyanide supply agreement between Sunrise Dam Gold Mine and AGR.

PRINCIPLE 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.

in full compliance with

The operation is in substantial compliance with Standard of Practice 3.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

There has been no change to the originally certified unloading, storage and mixing facility design at SDGM over the period of certification. The operation has maintained records of design compliance with relevant construction standard and statutory approval requirements. The operation has continued annual third party inspections of unloading, transfer and storage facilities to ensure that the condition and design of facilities is maintained within accepted specifications and statutory requirements. The condition of concrete secondary containment storage and unloading areas has been subject to regular maintenance inspection and maintenance works to ensure on-going integrity and to ensure design standards are maintained. Storage and transfer tank level alarm and indicator systems are subjected to scheduled maintenance programs to ensure functionality is continued as per the original design specifications. Materials that may be incompatible with cyanide are not stored in the vicinity of the cyanide facilities at SDGM.

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.

in full compliance with

The operation is in substantial compliance with Standard of Practice 3.2

not in compliance with



Summarize the basis for this Finding/Deficiencies Identified:

The operation has continued to maintain, review and implement liquid cyanide unloading procedures which include identification of the required PPE requirements, spill response contingencies, specific procedural checklists, and a permit to work for each delivery using 18,000L Isotainers. Copies of completed unloading pre-start hazard checklists and permits to work were sighted during the audit. The operation ensures that a spotter is present at all unloading operations to observe and raise the alarm if necessary.



PRINCIPLE 4 – OPERATIONS

Manage cyanide process solutions and waste streams to protect human health and the environment.

Standard of Practice 4.1

Implement management and operating systems designed to protect human health and the environment utilizing contingency planning and inspection and preventive maintenance procedures.

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The SDGM Cyanide Management Plan provides an operational framework for the implementation and review of cyanide related operating procedures, permits to work, manuals and instructions. The CMP references a comprehensive range of standard operating and maintenance procedures which are developed for all aspects of cyanide handling and use at SDGM. The procedures include: operational instructions for the use and maintenance of cyanide equipment and facilities; first aid and safety procedures for cyanide handling and incident response; cyanide monitoring procedures; management procedures for process and tailings disposal operations; emergency response and cyanide clean up procedures; and instructions for cyanide analysis.

The operation undertakes a range of scheduled inspections for the processing plant and related cyanide facilities. Deficiencies observed during the inspections are either rectified immediately, a work order placed within the preventative maintenance system or reported through the site incident/hazard reporting database.

The audit found the scheduled inspection program to be effective in ensuring protection of human health and the environment. SDGM has a Management of Change Procedure that provides guidance for potential changes or requirements relating to standard operating procedures, permits, maintenance procedures, training, drawing updates and equipment.

The operation has continued to operate a comprehensive maintenance and action planning system to track preventative maintenance aspects for the process plant including periodic inspections. A range of workplace inspections are undertaken by the responsible SDGM process plant and management personnel.

The operation's CTD tailings storage facility manual includes specific details of the contingency procedures in the event of an upset in the water balance, when inspections and monitoring identify a deviation from design or standard operating procedures, or when a temporary closure or cessation of operations may be necessary.

Standard of Practice 4.2

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM has continued to implement a test program and monitoring schedule to establish the cyanide addition set points. pH buffer test-work is undertaken periodically to establish optimal lime (and hence gold recovery and cyanide) consumption due to the hyper-saline process water. The operation has also continued to assess metallurgical recovery issues for the planned mine resource to assess optimum cyanide addition rates for the different ore types. The defined ore types are consistent whether sourced from open pit or from underground. SDGM has used an automatic cyanide analyser for controlling cyanide additions in the circuit in response to variations in processing conditions. Cyanide optimisation strategies are implemented and reviewed daily in consideration of recovery rates, salinity, pH and tailings cyanide concentrations.

Standard of Practice 4.3

Implement a comprehensive water management program to protect against unintentional releases.

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation has implemented a comprehensive water management program through operational manuals and standard operating procedures. The SDGM probabilistic water balance is used as a daily management tool to manage water supply intake requirements for the water supply borefield; manage the CTD supernatant pond salinities, and; manage and monitor storage capacity of the CTD and other storages. The water balance is comprehensive in that it considers all key water storage facilities, tailings density, daily climate data, salinities and potable water requirements. Water management measures are reviewed periodically on the basis of the probabilistic site water model. The probabilistic water model considers storm duration and storm return intervals with the CTD facility and decant/stormwater water pond design parameters set to contain a on in 100 year 72 hour rainfall event, whereupon an emergency spillway is provided to control the discharge of any excess water. No discharge has occurred from the emergency spillway even during flood events that occurred at SDGM from 17-22 February 2011 which was found to have exceeded 1 in 100 year average recurrence interval. Design parameters and operational water management plans were reviewed following the flood event and changes implemented to on the basis of flood investigations. The water balance process at SDGM required monthly entry of data from the Laverton meteorological station. The water balance model has been used to establish pond and CTD operating parameters based on 85 years of meteorological data. These parameters are reviewed on the basis of monthly updated data and changes to design.

Standard of Practice 4.4

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

- The operation is
- in full compliance with
 - in substantial compliance with Standard of Practice 4.4
 - not in compliance with



Summarize the basis for this Finding/Deficiencies Identified:

SDGM had previously completed an alternative protection strategy for birds/wildlife on the tailings facility as WAD CN concentrations of water on the dam exceeded the 50 mg/L ICMI recommended protection limit. A peer reviewed technical study (Causational Report) to support the alternative bird/wildlife protection strategy, was deemed to fully comply with the Code during the initial compliance audit. SDGM implemented management measures through its Cyanide Management Plan and tailings management manual in accordance with the 20 recommendations of the Causational Report. The Causational Report recommendations included: maintenance of high salinity levels on the CTD facility; frequent monitoring of birds and wildlife activity on and around the CTD facility, and; maintaining WAD CN concentration of tailings water on the CTD facility below established criteria. SDGM operated with tailings salinity <90,000 ppm TDS, outside the operating parameters established in the SDGM Cyanide Management Plan, for a period between 27 February 2011 and 30 July 2011. The reduced salinity at the CTD for the period was due to high water volumes from extreme rainfall events in February and June 2011. A review of rainfall records at SDGM demonstrate that the high rainfall experienced had not been recorded previously and could not be reasonably foreseen. A review of the water management during the period of reduced salinity indicates that SDGM optimised its plant water supply to ensure maximum use of CTD return water with the aim of reducing the period of time of elevated salinity.

Daily wildlife monitoring surveys at the CTD, stormwater decant pond and trenches surrounding the CTD were carried out between 25 February and 31 July 2011 and no wildlife deaths attributed to cyanosis were recorded. SDGM commissioned a risk assessment of the low salinity CTD event which determined that the loss of the wildlife protection mechanism, being the reduced tailings salinity, did not pose a substantial risk to wildlife primarily due to the salinity of surface water at the CTD far exceeding surrounding fresh water.

Since 30 July 2011, SDGM has not experienced any further loss of CTD salinity <90 000 mg/L TDS. The audit found that the contingency plans proposed to be implemented by SDGM in the case of any future similar flood events do not adequately consider alternative water management options to prevent long term loss of salinity, and the contingency measures are not specific in regards to WAD CN management objectives during the period of excursion <90,000mg/L TDS.



In consideration of the above factors and the Auditor Guidance for Recertification audits, SDGM is found to be substantially compliant with Standard of Practice 4.4. A Corrective Action Plan is required for contingencies which address the need for an escalation of management controls for similar events when the operations experiences a prolonged period of CTD salinity <90,000mg/L TDS which include authorised actions to reduce risk to wildlife in response to identified risk triggers, classified on the basis of salinity and WAD CN. The contingency plan should also investigate and identify feasible water management options that increase the ability of SDGM to manipulate CTD salinity under similar extreme rainfall events.

SDGM has implemented comprehensive monitoring and recording of wildlife activity at the CTD facility and other open water storage facilities in accordance with the peer reviewed technical report that supports the alternative strategy for protection of wildlife at SDGM. The monitoring results indicate that no wildlife mortalities have been occurred as a result of exposure to cyanide solutions during the period of certification.

Standard of Practice 4.5

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.5

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation has no known direct or indirect discharges of process or tailings water to surface water. The only discharge to a natural surface water body is the discharge of mine dewatering water to Lake Carey. The mine dewatering water is not part of the CN water circuit. Lake Carey is an ephemeral salt lake. The CTD facility and the decant/stormwater water pond are designed and approved to contain a 100 year 72 hour rainfall event, whereupon an emergency spillway is provided to control the discharge of any excess water. The emergency spillway has not required to be operated since the CTD facility commenced operation in 1999.

Standard of Practice 4.6

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



in full compliance with

The operation is in substantial compliance with Standard of Practice 4.6

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The CTD tailings storage facility includes a seepage interception trench part way round the facility, together with recovery bores. SDGM applies an internal groundwater limit of 0.5 mg/l WAD CN for the protection of beneficial users of groundwater in accordance with appropriate water quality guidelines. Groundwater monitoring data indicates no impacts from SDGM operations, including the CTD, on identified beneficial groundwater users. Beneficial uses were identified as being stock water and potable water bores on the Mt Weld Pastoral Station. These bores were observed on a map to be approximately 5km to 7km from the SDGM processing plant and CTD. An underground paste plant operated intermittently between 2010 and 2012. Monitoring of groundwater in the underground failed to identify any cyanide impacts to groundwater from the use of backfill paste tailings.

Standard of Practice 4.7

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.7

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM has continued to provide adequate spill prevention and containment measures for the process plant tanks and pipelines, including the tailings pipeline. There have been no changes made to layout of process tanks, secondary containment and associated pipeline routes since the 2010 audit. Spill prevention and containment measures are provided for all unloading, storage, mixing and process solution tanks. Minor changes to the tailings return pipeline during the period of certification resulted in modifications to the containment drainage for this facility.



Concrete remediation works for the cyanide facilities bund walls are ongoing and continue in accordance with planned maintenance. The CIL tanks sit on ring beams with no impermeable barrier between them and the ground. SDGM has installed 4 monitoring bores in the vicinity of these tanks to complement the annual tank inspection program. These bores are monitored for water quality on a quarterly basis and to date no increases in WAD CN levels have been recorded.

Procedures in place at SDGM to prevent discharge to the environment of cyanide solution to the environment of cyanide solutions that are collected in secondary containment are in place through the Cyanide Management Plan and spill response procedures. The procedures have continued to be implemented by SDGM over the period of certification.

Standard of Practice 4.8

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.8

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All quality assurance documents of cyanide facilities and modifications to existing facilities, including cyanide unloading, storage, mixing facilities and other cyanide facilities, have been retained as reported in the 2010 Audit. The Paste Fill Plant was completed as a new facility, since the 2010 Recertification Audit and quality assurance documentation has been retained since the commissioning period. The documentation reviewed during the initial certification audit and the recertification audit in 2010 which demonstrate that cyanide facilities have been constructed at SDGM in accordance with design and approved standards, continues to be applicable to current operational cyanide facilities.

SDGM had constructed and operated a paste backfill plant between 2010 and 2012 which is no longer in use and SDGM have no intention of recommissioning this plant. Documentation exists from construction reports that provide assurance that design standard have been achieved through material test results and inspections.

Standard of Practice 4.9

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.9

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation continues to implement and review a range of monitoring procedures in relation to the sampling, handling and chain of custody for tailings slurry and water, for both operational control and environmental compliance purposes. The sampling requirements are specified in licence conditions in accordance with recognised test methods. Testing is undertaken at laboratories accredited with the National Association of Testing Authorities (NATA) for both sampling and analyses. SDGM has incorporated effective quality control processes within its monitoring program to provide verification and reliance on monitoring results. SDGM has continued to undertake twice daily inspections of the CTD tailings facility, which includes identification of any wildlife use and any observed mortalities. The wildlife observation monitoring also includes quality control processes and a comprehensive training component to ensure effectiveness of the program.



PRINCIPLE 5 – DECOMMISSIONING

Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.

Standard of Practice 5.1

Plan and implement procedures for effective decommissioning of the cyanide facilities to protect human health, wildlife and livestock.

in full compliance with

The operation is in substantial compliance with Standard of Practice 5.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation has continued to maintain and revise its closure and decommissioning plans over the period of certification which includes the decommissioning of cyanide facilities associated with the processing plant, tailings facility and the decommissioned base backfill plant. A detailed Decommissioning Schedule has been developed and identifies the timing of tasks to be done in relation to closure. The Cyanide Closure Plan (Appendix I of the Mine Closure Plan) was last revised in November 2012. The plan includes details for decommissioning activities such as the drawdown of cyanide inventory; decontamination of equipment, contaminated site assessments, groundwater monitoring and management of seepage from the CTD.

Standard of Practice 5.2

Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

in full compliance with

The operation is in substantial compliance with Standard of Practice 5.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Financial provisions for decommissioning and closure have been developed and are revised by an external consultant every three years and internally every year. Financial provisions for decommissioning and closure were last revised in 2012 and include provision for the closure of the paste plant which was constructed during the period of certification. SDGM has lodged mine closure performance bonds with the Western Australian mine regulator in accordance with statutory obligations. These bonds are sufficient to cover the estimated costs of decommissioning and closure of cyanide facilities at SDGM.

PRINCIPLE 6 – WORKER SAFETY

Protect workers' health and safety from exposure to cyanide.

Standard of Practice 6.1

Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

in full compliance with

The operation is in substantial compliance with Standard of Practice 6.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM has continued to maintain written procedures within its electronic document control system describing how cyanide related tasks are conducted. The SDGM Cyanide Management Plan is in place and provides an overarching management plan framework that describes the operational controls and procedures in place at SDGM for minimising worker exposure to cyanide. Operational controls have been identified on the basis of a systematic risk management approach and include opportunity for input from operational personnel.

These include controlled procedures for cyanide handling, unloading, maintenance of equipment, decontamination and use of personal protective equipment (PPE). Work plans and permits for maintenance activities clearly establish restrictions and PPE for any works to be carried out. Procedures are in place and implemented for confined space entry, equipment decontamination and for the use of permit to work system that minimised worker exposure during maintenance activities. Operational procedures incorporate pre-work inspections and emergency response requirements. The cyanide related procedures are consistent with the cyanide manufacturer's recommended practice to prevent exposures and releases during cyanide unloading activities.

SDGM has continued to implement its "Management of Change" procedure. Changes to equipment, systems documentation or processes require personnel to complete a systematic assessment of the change to identify potential hazards and risks. These include an assessment of health and safety risks.

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.

Sunrise Dam Gold Mine



Signature of Lead Auditor

20 May 2014

in full compliance with

The operation is in substantial compliance with Standard of Practice 6.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The results of initial buffering test work completed in 2002-03 continue to apply since the original Code certification audit. These results determined that hyper-saline process water limits the pH that is practically achievable and the target set point will therefore range between a pH of 8.8 to 9.5 depending upon the salinity of the process water. Daily Specific Gravity tests are completed of the process water at SDGM to define the specific target pH and the lime dosage rate required. The lime addition rates are controlled through automatic pH analysis which is checked against 2 hourly hand held field pH tests.

The operation has identified the CIL tanks, trash screens and thickener areas where workers could be exposed to HCN gas in excess of this standard of practice item requirement. The HCN gas management strategy in these areas includes a combination of ambient monitors fitted with control room alarms, together with the requirement for all personnel entering these areas to carry a portable monitor and escape mask.

Warning signs were observed across the operation during the audit, including the liquid cyanide storage and unloading facility, CIL tank area and the entrance gate to the CTD tailings storage facility. Low pressure eyewash showers and dry powder fire extinguishers are located strategically across the process plant, which are subject to a program of regular inspection and preventative maintenance.

Standard of Practice 6.3

Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

in full compliance with

The operation is in substantial compliance with Standard of Practice 6.3

not in compliance with



Summarize the basis for this Finding/Deficiencies Identified:

The operation has continued to maintain and implement emergency management plans and first aid procedures to respond to worker exposure to cyanide. Cyanide antidote kit and oxygen resuscitation equipment are available. The operation maintains an onsite First Aid medical clinic which is staffed by a full time Registered Nurse (on 24 hour call). Senior process personnel are provided with competency based training in the use of the cyanide antidote kit (for initial immediate response). The operation's emergency response resources include a dedicated ambulance and the local hospital and medical providers have been notified and periodically participate in emergency mock drills. Audible alarms are established through the process plant to raise the alarm if high HCN or other emergency is triggered. All personnel carry two-way radios so can readily report on emergencies. Telephone communication is also available during cyanide unloading operations. Emergency response capabilities are tested through annual mock emergency drills which involve SDGM operations and emergency response personnel as well as external emergency response providers.

PRINCIPLE 7 – EMERGENCY RESPONSE

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

Standard of Practice 7.1

Prepare detailed emergency response plans for potential cyanide releases.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation has continued to develop emergency response capability through its Emergency Management Plan (EMP) and Crisis Management Plan. These plans have been revised over the period of certification in response to changes to organisational structure, review of risk registers and outcomes from emergency drills. SDGM has developed a separate Cyanide Emergency Response Plan (CERP) (dated 27 Nov 2012) for the SDGM Lease and surrounding areas/ communities that provides guidance on responding to cyanide related emergencies. The Cyanide Emergency Response Plan (CERP) considers eight potential cyanide threats with action flowcharts provided for each threat and includes response flow charts for three scenarios relating to catastrophic cyanide releases – pipe and tank rupture; fire and explosions; storage tank rupture. As transportation is off-site, emergency response would be handled under the supplier's (CSBP's) emergency management procedures, with support provide by SDGM depending on the location of the incident.

Standard of Practice 7.2

Involve site personnel and stakeholders in the planning process.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM is a member of the Local Emergency Management Committee (LEMC) which includes the Laverton Shire Council, Laverton Police, FESA, Laverton Hospital and local mining operations. This body is required by Western Australian law to respond to requests for assistance. The LEMC members are advised of operational and transport cyanide risks through formal communication of the emergency response plans and involvement with emergency planning exercises. There are also Mutual Aid Agreements with nearby mines such as Barrick Granny Smith who provide external resources for emergency response. The operation's personnel have continued to be involved in the emergency planning process including participation in the formal annual Emergency Management Plan reviews and mock drill exercises.

Standard of Practice 7.3

Designate appropriate personnel and commit necessary equipment and resources for emergency response.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation's Emergency Management Plan describes and identifies the roles, responsibilities and call out procedures, which are clearly shown within the emergency response control flow chart. The General Manager or designate has overall authority and responsibility and the incident controller assumes control of all mine site resources for the duration of any declared emergency. The operation maintains a comprehensive range of emergency equipment and resources, details of which are provided in the Emergency Management Plan.

Standard of Practice 7.4

Develop procedures for internal and external emergency notification and reporting.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.4

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation's Emergency Management Plan describes the requirement and procedures to notify external emergency support services which includes notification of external support agencies such as the Royal Flying Doctor Services, Police, Fire and emergency Services Authority and Laverton Hospital the surrounding communities. The Emergency Response Plan contains a list of the internal and external emergency contacts including details for offsite SDGM personnel, local and regional fire officers, police, hospitals, governmental agencies and departments and supplier/contractors. The operation produces a weekly emergency response roster/contact details sheet which identifies the key management and emergency response team members who are on site at SDGM.

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.

The operation's Emergency Management Plan identifies and describes the environmental considerations for a range of emergency scenarios including tailings release and cyanide spills. The Emergency Management Plan specifically describes the remediation actions, including material disposal, monitoring and reporting and clearly identifies the potential for adverse impacts if ferrous sulphate enters a waterway.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.5

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Standard of Practice 7.6

Periodically evaluate response procedures and capabilities and revise them as needed.

in full compliance with

The operation is in substantial compliance with Standard of Practice 7.6

not in compliance with



Summarize the basis for this Finding/Deficiencies Identified:

The operation's Emergency Management Plan includes the requirement for an annual review and the most recent review occurred in September 2013. The Emergency Management Plan describes the requirement to undertake at least one desktop and one emergency exercise annually. Drills are carried out both as desktop and as actual exercises with involvement of external agencies. The emergency response drill records included a debriefing to discuss lessons learned and include provisions for updating or revising the emergency plans.



PRINCIPLE 8 – TRAINING

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

Standard of Practice 8.1

Train workers to understand the hazards associated with cyanide use.

in full compliance with

The operation is in substantial compliance with Standard of Practice 8.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All employees and contractors who visit or undertake any work at the mine complete a general site induction which includes basis cyanide awareness, first aid, emergency response and hazard recognition. The induction is required to be refreshed every three years. SDGM maintain attendance records of all personnel who have completed the General Induction and when refresher training is due to be completed.

SDGM contractors are controlled through site access permits which include the need for General Inductions to be completed before work can commence.

A more detailed Cyanide Awareness training package is provided to process plant personnel and others that work in or near the cyanide facilities at SDGM, including emergency response and environment personnel. This training includes more detailed information on the use of personal protective equipment; first aid, awareness of cyanide hazards, spill response and emergency response. The cyanide awareness training is mandatory for all personnel who work in the process plant and CTD and must be refreshed annually.

Standard of Practice 8.2

Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

in full compliance with

The operation is in substantial compliance with Standard of Practice 8.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The SDGM processing plant continues to maintain a training matrix which identifies and tracks the training required/completed by the process and maintenance personnel to undertake cyanide related tasks in a manner that protects human health and the environment. The training programs are developed by work area and include: control room operations, elution process, leaching process, pump operations, valve operation and maintenance; taking samples and operate trainings facilities. Training materials for specific process related tasks include necessary elements to minimise risk to worker safety and prevent unplanned cyanide release. The completion of training for each process area is tracked for all individuals who work in the process area at SDGM. Personnel who are not recorded as competent for specific work tasks must be supervised by a competent operator until training and verification of competency is complete. Training competencies and assessment records are adequately maintained over the period of certification.

Standard of Practice 8.3

Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

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



Summarize the basis for this Finding/Deficiencies Identified:

The operation has continued to maintain a training needs matrix and schedule for the emergency response team, the weekly training sessions for which periodically include cyanide related scenarios. The emergency response team members receive specialist training from accredited external providers participate in periodic mock drill exercises and mines rescue competitions. Training and assessment records are adequately maintained.

The processing plant training matrix includes basic emergency response as a mandatory training topic. This includes raising and responding to the emergency alarm, using PPE and emergency first aid. In addition, all process department personnel, including those involved in cyanide unloading, production and maintenance, are required to undertake annual Cyanide Awareness Training which includes emergency response aspects such as basic first aid, spill clean-up and use of PPE. All SDGM personnel and contractors complete the General Induction which includes an understanding of cyanide hazard recognition and the steps taken in case of an emergency. In addition, process department personnel participate in department specific mock drill exercises on a periodic basis. Periodic evacuation of drill exercises are undertaken for all departments/areas site wide and records are maintained.

PRINCIPLE 9 – DIALOGUE

Engage in public consultation and disclosure.

Standard of Practice 9.1

Provide stakeholders the opportunity to communicate issues of concern.

in full compliance with

The operation is in substantial compliance with Standard of Practice 9.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

SDGM has continued to implement its Community and Stakeholder Management Plan that identifies stakeholders and means of engagement. Key stakeholders include Local Government, pastoralists and indigenous communities. A cyanide information sheet is provided to community members during mine site open days and includes contact details and phone number of site for public to raise issues. SDGM records its community concerns and reportable incidents through its action tracking system. An external notification regarding a tailings line failure was reported to the regulators during the certification period.

Standard of Practice 9.2

Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

in full compliance with

The operation is in substantial compliance with Standard of Practice 9.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

In particular, the 6 monthly Laverton Shire Council industry meetings and SDGM's annual open days provide opportunities for external stakeholders to be informed of SDGM's operations, CN management and raise issues. Records of Laverton Shire Council industry meetings are maintained. SDGM makes information available via the annual Online Sustainability Report which is available on the AngloGold Ashanti website. A section of the report is devoted to cyanide management including details of incidents that have occurred. Cyanide information is disseminated at the mine open day whereby local communities and stakeholders are invited to the facility.

Standard of Practice 9.3

Make appropriate operational and environmental information regarding cyanide available to stakeholders.

in full compliance with

The operation is in substantial compliance with Standard of Practice 9.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Written descriptions of cyanide management practices at SDGM are provided to communities and other stakeholders through the SDGM Cyanide information brochure. Cyanide information is also disseminated at the mine open day whereby local communities and stakeholders are invited to the facility. The open day agenda includes discussion of cyanide management and inspection of facilities. The operation also disseminates information relating to its environmental and safety performance through its annual sustainability reporting processes which are publically reported to stakeholders and regulators and available on the AngloGold Ashanti website. Publically available reports include details of any cyanide related incidents at SDGM.

