



SUSTAINABILITY
FUTURE GROWTH

**INTERNATIONAL CYANIDE MANAGEMENT CODE
GOLD MINING OPERATIONS**

**PHU BIA MINING LTD: BAN HOUAYXAI GOLD-SILVER
PROJECT**

**Ban Houayxai Gold Mine Recertification Audit
Summary Audit Report**

May 2016



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SUMMARY AUDIT REPORT

Name of Mine

Ban Houayxai Gold-Silver Mine

Name of Mine Owner

Phu Bia Mining Ltd, A Member of The PanAust Group Of Companies

Name of Mine Operator

Phu Bia Mining Ltd

Name of Responsible Manager

Kirsty Hollis, Process Manager

Address

7th Floor, Capital Tower, 23 Singha Road

PO Box 5559, Vientiane,

Lao People's Democratic Republic

Contact

Telephone: +856 (0) 21 268000- 19

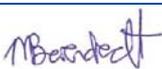
Fax: +856 (0) 21 268029

Email: Kirsty.Hollis@pbm.panaust.com

LOCATION DETAIL AND DESCRIPTION OF OPERATION

The Ban Houayxai (BHX) Gold-Silver Operation is located in Laos approximately 120 km north of the capital Vientiane and about 25km west of the existing Phu Kham Copper-Gold Operation. Access to the mine site is via the sealed Vientiane-Vang Vieng road and a 38 km gravel road linking the mine site to a turn off at Ban Namone approximately 12km south of Vang Vieng.

Ban Houayxai Gold-Silver Mine
Name of Mine


Signature of Lead Auditor

4 May 2016
Date

The BHX Operation commenced production operations in April 2012 following a commissioning period from January 2012. First cyanide was delivered to BHX by road on 26 January 2012. BHX was certified by the ICMI under the Gold Mining Pre-Operational Verification Protocol on 18 January 2012 and subsequently certified as fully compliant with the Gold Mining Operational Verification Protocol in March 2013. This audit report represents the BHX operation's first recertification audit.

BHX mine operations comprises an open pit mine feeding ore to a conventional Carbon In Leach (CIL) process plant. The operation is expected to produce, on average, over 100,000oz of gold and 700,000oz of silver per annum over a nine-year mine life based on 2011 reserves.

The BHX Process Plant flow sheet includes primary crushing, SAG milling, pebble crushing, ball milling, gravity concentration, CIL, tails thickening and cyanide detoxification. Initial processing involves the treatment of oxide ore at throughput rates equivalent to 5.2 mtpa. Once oxide ores are exhausted throughput rates on harder transition and primary ores will be 4.0 mtpa.

The gravity circuit includes a gravity concentrator and an agitated leach tank for coarse gold extraction ahead of the CIL circuit. The CIL circuit consists of 6 tanks in series.

The associated carbon circuit has been constructed to recover 18 tonnes of carbon per day. Precious metal desorption is achieved using a dedicated AARL split acid wash and elution circuit. Barren carbon is regenerated utilizing a dedicated carbon regeneration kiln. The circuit is operated in a series of batch operations at a rate of one to two 9 tonne strips per day. Precious metal recovery is achieved using 7 electro winning cells in parallel. Gold and silver bearing sludge is filtered and oven dried prior to smelting.

Cyanide detoxification of thickened tailings slurry is achieved using the Air/SO₂ process. The detoxified tailings slurry is pumped via pipeline to the tailings storage facility at target of <0.5 mg/L WADCN. The tailings storage facility comprises of a valley impoundment where tailings and collected surface water is stored and released via a controlled overflow to the Nam Ngum 2 hydroelectric power reservoir.

The operation purchases solid sodium cyanide, shipped and transported to site from Australian Gold Reagents (AGR) manufacturing facility in Kwinana, Western Australia using transporters certified to the ICMI's transport code of practice under AGR's supply chain.

AUDITOR'S FINDING

This operation is:

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

with the International Cyanide Management Code.

This operation has maintained full compliance with the International Cyanide Management Code throughout the previous three-year audit cycle.

Audit Company

Sustainability Pty Ltd
Suite 3, 118 Flora Terrace
North Beach, WA, 6020
AUSTRALIA

Telephone: +61 8 9246 6666
Facsimile: +61 8 9246 6660

www.sustainability.net.au

Audit Team Leader

Marc Barendrecht (marc.barendrecht@sustainability.net.au)



4 May 2016

Names and Signatures of Other Auditors



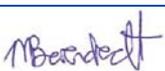
Tom Carmichael

4 May 2016

Date(s) of Audit

Inclusive of the period from 28th to 31st January 2016.

Ban Houayxai Gold-Silver Mine
Name of Mine



Signature of Lead Auditor

4 May 2016
Date

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.

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:

BHX is in FULL COMPLIANCE with standard of Practice 1.1, requiring the operation 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.

BHX has a Supply Agreement with AGR Pty Ltd (Manufacturer) for the supply of sodium cyanide, dated 24 March 2015, which states that the manufacturer used must at all times comply with the ICMI Code, and must be certified as fully compliant with the Code. Prior to this current contract, cyanide was purchased from AGR under a previous contracting agreement. AGR has been and remains a certified cyanide producer for the entire audit period.

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:

BHX is in FULL COMPLIANCE with the Standard of Practice 2.1 requiring that the operation establishes clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

The operation purchases cyanide under a written Supply Agreement that designates responsibility for the aspects of cyanide transportation required by the Code. The supply agreement establishes clear lines of responsibility for safety, security, release prevention, training and emergency response through reference to the Code and to the ICMI Cyanide Transportation Audit Protocol.

Furthermore, both the cyanide supplier and transporter are certified as being compliant with the Code.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 2.2 requiring that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

AGR's supply chain begins from AGR's production facility in Kwinana to the Port of Fremantle Western Australia; AGR's Ocean Freight Supply Chain from Fremantle to Leam Chabang in Thailand; and, Pioneer Ocean Freight Company Limited from the port of Laem Chabang to the BHX operation in Laos. Pioneer has subcontracted Nanon Inter Freight (Thailand) Co to transport from Laem Chabang to BHX, Ltd. Nanon is specified as a transporter in the contract with AGR. All these elements of the supply chain have been certified as fully compliant with the Code and were fully compliant during the entire audit period.

The Supply Agreement between BHX and the Supplier dated 24 March 2015 states that the transporter used must at all times comply with the Code and must be certified as fully compliant with the Code.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 3.1 requiring that unloading, storage and mixing facilities are designed and constructed with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

BHX operational facilities have been designed and constructed in accordance with the engineering design criteria, which includes ICMI code compliance and statutory obligations. The cyanide supplier, AGR, has completed an audit against the supplier's recommendations and verified that the operation's unloading; storage and mixing facilities comply with these guidelines.

There have not been any changes to the facilities for unloading, storing and mixing cyanide since the previous ICMC audit. Completion records identified during the previous ICMC audit comprised:

- Certificate of Construction Compliance to ICMI Standards: Project manager's certification of compliance with ICMI standards, 6/7/12.
- Report titled Mine site storage and mixing facility inspection BHX, 28 May 2012 by AGR was completed after commissioning of the facilities.
- Handover certificates for cyanide specific items – e.g. pipe work on CN lines include QA/QC test packs. Hydro-test results for cyanide lines. All certificates signed and dated for cyanide pipes.
- CIL Tanks test pack documentation within the handover reports: Ultrasonic test results for tank welds.
- Detox tank preparation compaction tests.

- Concrete tests 290/32 cyanide mixing, compressive strength, slump tests, 7 day and 28 day curing tests 22/9/2011
- Separate handover certificate for event pond was issued on 18/4/2012
- 2011-2012 Tailings Storage Facility Construction Report

The cyanide unloading, mixing and storage facility location is within a dedicated secured area within the plant site; more than 60m from the laboratory and workshops; and over 500m from surface waters.

BHX is located in a remote area; the nearest community to the mine is located approximately 20 km from the site.

Liquid cyanide is not delivered to the site. Only boxed solid cyanide is delivered to site.

Solid cyanide is unloaded via an enclosed chamber, carried out on a competent concrete surface within the cyanide mixing building, a secure building with access limited to authorised personnel. The part of the plant where cyanide is stored and handled is on a single level.

The cyanide mixing and storage tanks are located on concrete plinths which prevent seepage to the subsurface. The tanks are fitted with level indicators and high level alarms which are monitored via the control room.

Spills during mixing of the cyanide would drain to the concrete constructed mixing area bund from where they can be recovered for use in the leach circuit.

The cyanide mixing and storage tanks and their associated pumps are installed in a secondary containment system built of concrete floors and bunds that provide containment of sufficient capacity.

The cyanide storage warehouse and the building containing the cyanide mixing and storage tanks is effectively vented so that breathing emissions should not lead to hazardous concentrations of HCN where workers are present.

Solid cyanide is stored in timber boxes on a concrete floor, inside concrete walls and under a metal roof to minimise the potential for contact of solid cyanide with water.

A bund drain at the doorway and sloping of the warehouse floor prevents surface water flowing into the warehouse.

The unloading and storage areas are in a secure location and have facilities to enable additional security to be invoked if considered necessary.

Incompatible material is hydraulically and physically isolated from the cyanide storage and mixing areas.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 3.2 requiring that unloading, storage and mixing facilities are operated using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

Standard Operating Procedures (SOPs) are in place relevant to handling and disposal of empty cyanide containers in accordance with the requirements of this question.

The Cyanide Box Disposal Procedure prevents cyanide containers from being re-used. The Procedure provides three options for disposal of cyanide packaging: burning, burial in waste dump and incineration. The Cyanide Mixing Procedure includes disposal procedures for bags and boxes that are in accordance with Government approvals and are environmentally sound. Boxes are marked for disposal, with bags inside, stored in shed, and then removed by batch to disposal. No cyanide boxes are returned to the vendor.

No liquid cyanide used is unloaded at BHX. The valve for transferring liquid cyanide from the mixing tank to the storage tank is operated by the control room. Unloading of the cyanide shipping containers from the delivery truck and removal of the cyanide boxes from the containers is undertaken in accordance with the SOPs. The unloading SOP requires that cyanide boxers are stacked no more than four high in the cyanide storage warehouse. The cyanide unloading and mixing procedures include the requirements for clean up during and immediately after activities. The procedures for cyanide unloading and mixing include minimum PPE requirements and an observer located at a safe location during unloading and mixing activities.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.1 requiring management and operating systems designed to protect human health and the environment are implemented and include contingency planning and inspection and preventive maintenance procedures.

The operation has procedures that identify the assumptions and parameters on which the BHX design was based and applicable regulatory requirements as necessary to prevent or control cyanide releases and exposures consistent with applicable requirements.

BHX was designed to manage discharge of tailings at <0.5 mg/L WADCN through the Detoxification and Discharge Protocols.

There have not been any changes to the cyanide facility design or operating strategy since the previous ICMC audit.

The operation has implemented plans, procedures and systems, including the programmed inspections and maintenance, necessary to ensure the safe and environmentally sound operations. The key plans include the Cyanide Management Plan, the TSF Management Plan, the Cyanide Destruction Operating Manual, and the CIL Operating Manual.

The Cyanide Management Plan describes the operation and management of cyanide facilities to prevent harmful exposure to and to prevent release of cyanide to the environment. The Cyanide Management Plan references all cyanide-related SOP's and associated plans and is reviewed at least annually. The SOPs and related documents cover process operations and the inspections required to deliver on the management plan requirements. Responsibilities for these process operations and inspections are distributed amongst processing, maintenance and specialised engineers and scientists.

BHX has a workplace inspection roster to ensure that cyanide facilities and operations are inspected on an established frequency. Area inspections have been implemented and include records of regular inspection of cyanide facilities including safety showers, bunding, housekeeping, alarms and HCN monitors.

BHX has a planned maintenance system in SAP. BHX is categorised by areas (e.g. Cyanide Mixing and Storage, CIL circuit and Detoxification) and each item of plant has an individual plant item number.

The BHX Change Management System has been developed and is implemented for operational, process or equipment changes and includes changes that may result in potential for release of cyanide. Change management request forms are implemented for the operation; and include engineering changes in the process plant. A change register is used to record all changes which have gone through the change management process.

The change request form requires supporting evidence including a risk assessment, technical memorandum, design drawings and as-built drawings. The change request form and supporting evidence is reviewed and approved (signed) by the Process / Mine Superintendent, Electrical / Mechanical Superintendent, the Maintenance Manager and the Project Leader. All changes to cyanide related plant and operations trigger the change management process.

The operation has developed formal cyanide management documents that address contingency procedures for situations when there is an upset in BHX's water balance, inspections and monitoring identify a deviation from design or standard operating procedures and/or when a temporary closure or cessation of the operation may be necessary.

The process plant is located on top of a hill and raw water may only enter the site via electronically controlled pumps. Similarly, the tailings may only leave the process plant via electronically controlled pumps to the TSF. The Detoxification Plant ensures that WAD cyanide concentrations in the tailings remain below the target 0.5 ppm.

Contingency procedures for upset of water balance in the TSF are included in the TSF Operating Plan. The capacity of the TSF is managed via its design and planned uplifts supported by bathymetry surveys which are conducted monthly for key risk areas around the deposition point and spillway and quarterly for the full TSF.

Temporary closure contingency measures are included in the Cyanide Closure Plan. Procedures exist for shutdown of the detox plant and CIL to ensure that release of cyanide material is minimised

The operation does inspect tanks, secondary containments, pipelines, pumps, valves and the tailings storage facilities at unloading, storage, mixing and process areas as discussed below. There are no leach pads at BHX as the leach process is conducted in tanks.

Area inspections have been developed using clearly worded checklists and implemented with records of completion available. Inspections are completed weekly or monthly as part of the planned maintenance system. Each week SAP generates the work orders for inspections. Template inspection checklists are used for each inspection. Copies of the inspection records are retained through BHX's documentation management system (INX). The inspections include cyanide unloading, storage, mixing and process areas. The inspections include tanks, secondary containment, leak detection systems, pipelines, pumps and valves. For example the checklist for the cyanide and caustic mixing area includes the transfer pump, doxing pump, standby pump and sump pumps. Daily inspections are undertaken of the tailings pipeline and valves, the tailings line choke stations, the tailings deposition point and the TSF spillway.

There are no leach pads at BHX.

Area inspections are documented using standard checklists for each operational area. Records are maintained and include the name of the inspector, observed deficiencies, corrective actions and work orders. Records are kept in BHX's document management system INX.

The maintenance system includes programmed maintenance items for tank inspections requiring internal inspection for corrosion.

Programmed Maintenance inspection checks are implemented managed and reported through SAP, which replaced the Pronto system in August 2014.

Corrective actions are implemented through work orders when inspections identify operations that are outside the design parameters.

BHX has a planned maintenance system in SAP which was implemented in August 2014, which replaced the Pronto maintenance system. BHX is categorised by areas (e.g. Cyanide Mixing and Storage, CIL circuit and Detoxification) and each item of plant has an individual plant item number. The planned maintenance system is in place and implemented and records are available that verify completion of tasks and verification that equipment is operating in accordance with design and as necessary to ensure safe management of cyanide.

For reactive maintenance work orders are generated by the process operators. Cyanide related items of plant are prioritised for completion immediately (i.e. on that day).

Preventive maintenance programs are implemented and activities are documented to ensure that equipment and devices function as necessary for safe cyanide management.

A check of outstanding maintenance tasks for cyanide related parts of the plant indicates timely completion of maintenance tasks.

The operation has dual power connection lines to the main grid and two back-up generators, to minimise the risk of power interruptions and ensure critical functions of the plant are maintained in the event of loss of mains power supply. The back-up generators are subject to weekly maintenance checks.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.2 requiring management and operating systems be introduced to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

BHX has implemented a metallurgical testing program to determine optimum cyanide addition rates. Dosing of cyanide to the CIL is based on gold and silver recovery values determined from laboratory assay results. Typically, the free NaCN concentrations in CIL tank #1 are maintained in the range of 240ppm. In addition, daily bottle roll tests are undertaken on CIL tails to test the effects of increased cyanide concentrations and CIL residence times. There have not been any changes to the process since the previous audit.

Leaching of gravity concentrates is conducted at cyanide concentrations of 20,000ppm NaCN. Gravity leach tails are pumped to the CIL.

Online and manual controls are used for single point cyanide additions.

The control strategies for CN addition identified in the Definitive Feasibility Study are being implemented through the documented CIL and ILR gravity circuit operating manuals.

BHX evaluates the cyanide requirements of the ore for each 12-month period via testing of ore samples. This work includes leach test work trialling a range of cyanide addition rates and was undertaken in 2015 for the 2016 to 2018 period. BHX is evaluating the data to consider options for control strategies for cyanide additions.

BHX has implemented a cyanide dosing strategy through automatic dosing and online cyanide monitoring. The cyanide addition strategy comprises of adjusting the cyanide flow to achieve a predetermined free cyanide concentration in the first and second CIL tanks. On line pH monitoring is available in CIL tanks #1 and #2 to provide feedback on the results of changes to quicklime addition rates. This on-line monitoring is supplemented by laboratory checks of pH.

The overall strategy for control of cyanide additions has not changed since the previous ICMC audit.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.3 requiring a comprehensive water management program be implemented to protect against unintentional releases.

The BHX operations tailings facility is designed to overflow to the environment and is managed to maintain WADCN concentrations of cyanide less than 0.5 mg/L. A comprehensive probabilistic water balance was developed by Knight Peisold consultants for the operations for the TSF with the objective of managing water levels to meet design objectives. The water balance for the TSF is primarily used to manage BHX integrity as cyanide concentrations are controlled to allow discharge from BHX without exceeding water quality criteria.

The water balance considers the following in a reasonable manner, and as appropriate for the facilities and environment.

The water balance considers the concentration of WADCN at the tailings discharge and is used to verify the discharge criteria. Monthly flow rates of tailings into the TSF are considered in the water balance. There are no leach pads at BHX.

The water balance includes model runs at multiple design storm return parameters that allow for a full range of storm events likely to occur over the life of BHX. The data is used to verify design and operational parameters required for the TSF.

The quality of the available rainfall data quality is discussed in the TSF Water Management report and determined to be sufficient.

The water balance addresses the amount of precipitation runoff into the tailings pond from the surrounding catchment and directly onto pond surface, and the stream base flow from upstream sources. There is no undiverted run-on from upgradient areas onto the process plant as the process plant is located on the top of a hill.

No freezing or thawing occurs at the location.

Outputs from the TSF considered by the water balance include evaporation losses, seepage losses and spillway discharges.

The water balance includes scenarios for various events including tank failures, power outages and tank failures during power outage. Power outages for multiple periods are also modelled. These scenarios have been considered in the recommended pond management procedures. Potential power outages are addressed by duplicate mains power supply and back-up generators able to operate key items of the process plant.

The solution entering the TSF is treated by the Detoxification Plant prior to entering the TSF to a WAD concentration of less than 0.5 ppm. The water balance considers the secondary containment capacity for the process plant.

Contingency procedures for upset of water balance in TSF are included in the TSF Operating Plan. The capacity of the TSF is managed via its design and planned uplifts supported by bathymetry surveys which are conducted monthly for key risk areas around the deposition point and spillway and quarterly for the full TSF.

TSF Operating Manual include water level management for structural integrity reasons and not for cyanide management as discharge WADCN concentrations are less than 0.5 ppm and overflow concentrations meet discharge water quality criteria.

BHX measures rainfall at the TSF and plant on a daily basis. BHX monitors the flow at spillway but has not had a need to modify operations to date.

Standard of Practice 4.4

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 4.4

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

BHX is in FULL COMPLIANCE with Standard of Practice 4.4 requiring measures be implemented to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

Open water bodies on site are managed to ensure no open water exceeds 50 mg/L WAD CN, with a target of 0.5mg/L WAD CN in the TSF discharge. Monitoring results for the audit period were reviewed and it was verified that water in the TSF does not exceed 50 mg/L WAD CN.

BHX has online analyser on the discharge of tailings from the detox plant that demonstrates compliance with its discharge criteria of 0.5 ppm WAD CN at the tailings dam. The monitoring at discharge from the detox occurs approximately every 5minutes using auto-sampler and online analyser with hourly manual samples also taken. Operators of the plant are alerted to high WAD CN (>0.5ppm) and apply management strategies to ensure WAD CN is brought within the criteria or shut down if cyanide concentrations are unable to be reduced.

WAD CN kept below 0.5 mg/L WAD CN and is considered to be sufficient to protect wildlife mortality.

BHX takes a range of measures to understand the impact of cyanide bearing solutions on wildlife interacting with tailings and solutions. A range of records were reviewed for wildlife inspections during the audit period. No wildlife mortalities were recorded around the processing plant and TSF

Standard of Practice 4.5

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

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.5 requiring measures be implemented to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The BHX TSF is designed to discharge to surface water (Nam Ngum II Reservoir) and is designed and managed to ensure that the discharge overflow water quality is maintained <0.5 mg/L WAD CN.

Solution samples are taken on a daily basis from the TSF and the TSF spillway for WAD cyanide analysis. Records reviewed during the audit indicate no overflow from the TSF has exceeded the discharge criteria of 0.5 mg/L WAD CN.

The permits and approvals granted for the operation (Environmental Compliance Certificate) have established a mixing zone downstream of the TSF overflow. A compliance monitoring point has been established downstream of the mixing zone. Monitoring results at the compliance point were reviewed during the audit period and no values were in excess of 0.022 mg/L free cyanide.

There is no indirect discharge to surface water from the operation.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.6 requiring measures be implemented to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

There are no identified beneficial users of groundwater in the vicinity of the BHX operations. The site is surrounded by the Nam Ngum 2 water reservoir and it is likely that any groundwater beneath the BHX plant site would eventually discharge to the reservoir. BHX has designed and constructed the facilities to prevent seepage of cyanide containing materials to groundwater through primary, secondary and tertiary containment facilities.

Nevertheless, BHX monitors for seepage from the TSF and process plant at monitoring bores in the vicinity of these locations. The TSF monitoring bores are sampled and analysed on a monthly basis whereas the process plant monitoring bores are sampled on a weekly basis.

There are no numeric standards for cyanide in groundwater established by the Laos government. BHX internal criterion for initiating investigation of groundwater is 0.5 mg/L WAD CN. There have been no results of groundwater exceeding the BHX investigation concentration for WAD CN.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.7 requiring spill prevention or containment measures be provided for process tanks and pipelines.

No change has occurred to the operation since the original 2012 certification audit. Drawings and testing results were sighted during this audit to verify they were still available.

Secondary containment has been designed and constructed in accordance with specified design criteria. The secondary containment volumes for cyanide mixing, storage, thickener and process tanks are sized to hold 110% of the volume of the largest tank within the containment area and consider any piping draining back to the area and allow additional capacity for the design storm event (1 in 100-year event). Design engineering sign off documents refer to compliance with ICMI criteria.

Concrete secondary containment is in place for all cyanide unloading, storage, mixing and process solution tanks. The secondary containment includes collection sumps and pumps for removing spilled material.

Post construction testing demonstrates that concrete secondary containment meets the minimum design criteria. These testing results were observed and verified again during this audit.

Tanks on ring beams include the CIL tanks, detoxification tanks and process water tanks. These tanks are all constructed with appropriate leak detection and recovery systems within the beam. These systems are included in regular inspections of the CIL area.

All pipelines that convey cyanide process solution have spill containment measures that direct spills to secondary containment areas and collection sumps. A range of inspection and maintenance tasks are carried out on a planned and regular basis to ensure infrastructure remains fit for purpose.

Cyanide tanks and pipelines are constructed of materials compatible with cyanide and alkaline pH conditions. The materials of construction are mild steel for tanks and thickeners as well as some pipes. The processing facilities are constructed in accordance with the relevant standards, Australian design standards and ICMI cyanide code requirements are specified in the design criteria. All secondary containment areas have been constructed in concrete.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.8 requiring quality control/quality assurance procedures be implemented to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

No changes have occurred to the operation since the previous audit. No new cyanide facilities have been constructed during this audit period. Information and evidence presented in the original audit was reviewed during this audit. As previously discussed, the change management process undertaken involving the use of process water at the SAG mill determined that the SAG mill did not class as a cyanide facility due to the water being below 0.5mg/L WAD CN.

BHX operational facilities have been designed and constructed in accordance with the engineering design criteria, which includes ICMI code compliance. The cyanide supplier, AGR, has completed an audit against the supplier's recommendations and verified that the operation's unloading, storage and mixing facilities comply with these guidelines. QA/QC assurance programs have been adopted during construction and commissioning phase at BHX.

QA/QC documentation includes materials assurance, compactions tests, liner weld tests, and tank/pipeline integrity tests:

- Event Pond liner installs and pressure testing of liner joints complete.
- Request to Witness Inspect event pond liner and joint tests are maintained in the QA documents 29/3/12
- Tanks and pipelines handover documents and test packs have been reviewed.

- Concrete strength and tank integrity tests have been included in handover
- TSF construction reports include compaction tests for impoundments at the TSF

Tailings pipeline construction tests include minimum strength and integrity tests.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 4.9 requiring monitoring programs be implemented to evaluate the effects of cyanide use on wildlife and surface and ground water quality.

The operation has developed a range of procedures for the conduct of monitoring activities on the effects of cyanide on wildlife and surface and ground waters. Monitoring, sampling and analytical procedures have been developed by appropriately qualified personnel.

The PBM and BHX procedures include all relevant information for sampling, preservation and management of records. Chain of custody forms have been developed and are used on site for all samples.

BHX carry out a range of monitoring for WAD CN in process water discharges, surface and groundwater locations. This includes monitoring of the TSF overflow discharge, the downstream mixing zone and groundwater monitoring bores at the process plant site and the TSF.

Wildlife mortalities, mainly fish kill incidents, are monitored and recorded. Checklist for monitoring records includes requirement to record any wildlife, mortalities, sightings or observations. Fish kill incidents are recorded and investigated by BHX environment staff.

Frequencies of monitoring are considered to be adequate. Records of all monitoring activities were available during the audit for review.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 5.1 requiring procedures for effective decommissioning of the cyanide facilities be implemented to protect human health, wildlife and livestock.

There are two primary documents governing cyanide decommissioning and closure at BHX. These are the:

- BHX-PRO-MAN-3002 Cyanide Closure Plan
- BHX-MAN-0152 Mine Closure Plan

The Cyanide Closure Plan specifically outlines the requirements for decommissioning of cyanide facilities, as required by this audit protocol. The Mine Closure Plan is the overall site closure plan of which the information contained in the Cyanide Closure Plan forms part of.

The BHX Cyanide Closure Plan includes a description of cyanide management during short term or temporary closure activities as well as permanent closure scenarios. This document was most recently reviewed in 2015.

The Cyanide Closure Plan includes a schedule for decommissioning and is regularly reviewed.

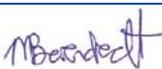
Standard of Practice 5.2

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

Ban Houayxai Gold-Silver Mine
Name of Mine


Signature of Lead Auditor

4 May 2016
Date

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

BHX is in FULL COMPLIANCE with Standard of Practice 5.2 requiring an assurance mechanism be established capable of fully funding cyanide related decommissioning activities.

Cost estimates for third party implementation of cyanide related decommissioning outlines in the Cyanide Closure Plan has been completed in 2012. This base case cost estimate has since been updated annually by Phu Bia Mining financial staff taking into account inflationary and cost of living differences.

The current cost estimate for cyanide decommissioning is \$1,271,095 USD. This estimate is for third party contractors to conduct the work. Closure costs are updated on an annual basis. This includes the costs associated with cyanide decommissioning. The most recent update occurred in 2015.

The BHX mine has self-insurance in place through financial provisions for mine closure costs, including cyanide decommissioning costs. These provisions have been subject to independent financial audit and included in the Phu Bia Mining Annual Report 2014. An independent auditors report by PWC is included in page 12-13 of the Annual Report that states the financial information presented in the Annual Report presents fairly the financial position of Phu Bia Mining in accordance with International Financial Reporting Standards.

The financial position of the company as presented in the Annual Report includes sufficient financial ability to fully fund the costs associated with cyanide-related decommissioning activities.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 6.1 requiring potential cyanide exposure scenarios be identified and measures taken as necessary to eliminate, reduce and control them.

Written management and operating plans or procedures have been developed (and effectively implemented and periodically reviewed) for cyanide facilities including unloading, mixing and storage facilities, leach plants, tailings impoundments and cyanide treatment, regeneration and disposal systems.

Minimum PPE requirements are included in all operations and maintenance SOP's and in JSA documents. Permit to work process also identified minimum PPE prior to commencement of task. PPE is stored in the chemical PPE hut.

Management of change process is in place for operational changes and modification and uses a change request form that allows a review of potential safety and worker health impacts prior to the change taking place. The reviews are carried out by operational and technical teams with worker health and safety specialist input.

BHX has conducted a range of team based risk assessments and HAZOP's in relation to worker health and safety for all cyanide-related tasks, including maintenance of cyanide equipment and facilities on the mine site to formally identify areas/tasks where significant potential for exposure to cyanide can occur.

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.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 6.2 requiring cyanide facilities are operated and monitored to protect worker health and safety and the effectiveness of the health and safety measures are periodically evaluated.

BHX conducts pH-buffering tests as required to determine the appropriate pH for limiting the evolution of HCN gas during processing activities. BHX typically operates the CIL with pH values in excess of 10.

Feasibility study identified the appropriate pH for process HCN control. The results of metallurgical test work are reflected in draft plans to maintain process solutions above pH10. Process test work results feed into this determination.

The operation has identified areas where the potential exists for cyanide exposure, namely, cyanide mixing and storage, CIL tanks, trash screen and carbon safety screen areas.

The site uses both fixed and personal monitors and these are set to alarm at 4.7 and 10 ppm. The calibration and inspection schedule for the monitors is maintained in the SAP PM system. Evidence of timely calibration was observed.

Warning signs in place for all areas identified as potential cyanide exposure sites as identified through HAZOPs, risk assessments and weekly air quality surveys. Safety showers, eye wash stations and fire extinguishers are present and are inspected and maintained according to a schedule. Signs are used to identify cyanide storage, mixing and process tanks and the cyanide storage shed. Signs are also used to identify pipelines with cyanide liquors and the direction of flow of these pipelines. Cyanide warning signs are introduced to all personnel through the process plan induction and cyanide awareness training. High strength cyanide process liquor pipelines are painted lilac colour for ready identification by workers and maintenance personnel

MSDS boards are in place at several locations in the process plant including the cyanide storage shed, PPE/Permit Hut and laboratory. MSDS sheets include safety information on sodium cyanide and MSDS sheets are provided in Lao and English language.

BHX implements an effective incident investigation and management process. Incident investigations are being completed in accordance with the procedure. There are no records of cyanide related incidents reported or investigated during the audit period.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 6.3 requiring emergency response plans and procedures be developed and implemented to respond to worker exposure to cyanide.

BHX has the necessary response and communication equipment readily available for use at cyanide unloading, storage and mixing locations.

Evidence was observed to show that BHX does inspect its first aid equipment regularly to ensure that it is available when needed, and materials are stored and/or tested as directed by their manufacturers. The operation has developed and implemented a site specific Cyanide Emergency Response Plan (CERP) to respond to cyanide incidents, including the treatment of exposures.

A medical clinic has been established on site to provide 24 hours first aid or medical assistance to workers exposed to cyanide, containing resuscitation and defibrillation equipment, as well as cyanide antidote (cyanokits). An on-site ERT is available 24 hours per day, seven days per week. All ERT members are trained in first aid.

The BHX Cyanide Emergency Response Plan refers to the BHX Medical Evacuation Procedure with medivac to hospitals in Vientiane or Thailand for personnel requiring treatment for cyanide exposure beyond what the onsite clinic can support. BHX undertakes regular liaison with these hospitals to provide information and training on cyanide treatment. Details of these hospitals are outlined in the Medical Evacuation Procedure.

BHX maintains an ambulance which can be used to transport workers exposed to cyanide. The operation has established routes to transport patients to the local hospital and hospitals in Vientiane. BHX also has access to medical helicopter transport services based in Vientiane to provide fast transport to hospitals in Vientiane if required.

BHX has regularly conducted mock emergency drills to test response procedures for various cyanide exposure scenarios, and lessons learned from the drills are incorporated into response planning. The ERT members are trained in decontamination and first aid. They also take part in routine drill to test and improve their response skills.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 7.1 requiring detailed emergency response plans are prepared for potential cyanide releases.

BHX has adopted appropriate emergency response and management plans for the site, including a Cyanide Emergency Response Plan (CERP). The emergency response scenarios have been identified from review of the processes and activities associated with cyanide delivery, handling, storage and use at BHX.

BHX's CERP details the responsibilities, response equipment, procedures for cyanide emergencies, and the roles of outside responders, medical facilities and communities. The CERP considers the potential cyanide failure scenarios appropriate for the operation's site-specific environmental and operating circumstances. The CERP was designed to address the requirements of the ICMC and consequently details specific response actions for an appropriate range of scenarios.

BHX does not transport cyanide to the site. BHX Cyanide Emergency Response Plan refers to the certified cyanide transporter's (Pioneer) Emergency Response Plan for transport related accidents. These have been shared between parties and are integrated.

The CERP describes specific response actions (as appropriate for the anticipated emergency situations) including use of Incident Isolations Zones to be applied for evacuation and establishing a Personnel Decontamination Zone. BHX has used the cyanide manufacturer's recommended isolation distances for events. The CERP addresses emergency response first aid, including use of oxygen and antidote kits. The CERP incident response includes the need to isolate, rescue, protect, contain, recover, and decontaminate.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 7.2 requiring the involvement of site personnel and stakeholders in the planning process.

BHX has involved its workforce in cyanide emergency response planning through participation in cyanide related HAZOPS and risk assessments undertaken prior to plant operations.

BHX has identified local stakeholders. A register of local stakeholders is contained on BHX's intranet. Contact with external stakeholders is managed by the External Affairs Manager.

The BHX Cyanide Emergency Response Plan includes discussion of cyanide awareness programs with local communities and maintains emergency contact numbers. The cyanide awareness community presentations include emergency response planning issues and comments are sought from local communities on these issues for input to the emergency planning process.

The Cyanide Emergency Response Plan identifies five villages which may need to be contacted in relation to cyanide matters. A copy of BHX contact phone numbers are posted on the Community Notice Boards in each village. BHX's stakeholder data base includes the contact names and phone numbers of representatives of the villages. Community cyanide awareness program is undertaken annually with local communities. Records of meetings are maintained in BHX's document management system.

External medical providers are referenced in the emergency response plan and are included in regular meetings and discussions on issues of medical response and community security.

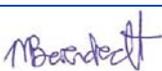
BHX consults and communicates with stakeholders through community meetings, medical liaison visits to local hospitals and other stakeholder meetings.

Standard of Practice 7.3

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

in full compliance with

Ban Houayxai Gold-Silver Mine
Name of Mine


Signature of Lead Auditor

4 May 2016
Date

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

Summarize the basis for this Finding/Deficiencies Identified:

BHX is in FULL COMPLIANCE with Standard of Practice 7.3 requiring appropriate personnel are designated and the necessary equipment and resources are committed for emergency response.

The BHX Cyanide Emergency Response Plan designates appropriate personnel and commits equipment and resources for emergency response as described in the following. The CERP:

- Designates primary and alternate emergency response coordinators who have responsibility to commit resources.
- Identifies and describes the Emergency Response team – which consists of three full time dedicated response teams providing 24 hour emergency response capability onsite.
- States ERT training includes Cyanide Awareness Training and use of specific response equipment, treatment chemicals and first aid.
- Includes all cyanide emergency response contacts including internal and external responders /advisors. The Significant Incident Management Team Emergency Contact list contains the contact names and phone numbers of persons with responsibilities for response to emergencies.
- Outlines all duties and responsibilities for internal and external responders/advisors.
- Includes a register of emergency response equipment, location of equipment, inspection checklists and inspections schedule.
- Includes inspection checklists for equipment. The ERT maintains inspections activity schedules and instructions for undertaking inspections.

Records of weekly equipment inspections are maintained in BHX's document management system (INX).

The role of external responders in the event of a cyanide incident would be limited mainly to medical assistance at hospitals. Technical support would be provided by the supplier of the cyanide, CSBP (AGR), based in Australia.

As BHX would be self-sufficient in the event of an emergency it has not involved external parties in its emergency response drills. The cyanide transporter to site undertakes separate emergency mock drills.

BHX has held a meeting on site with a representative of the supplier of the cyanide to discuss emergency response plans.

BHX medical personnel have visited the local hospital.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 7.4 requiring procedures are developed for internal and external emergency notification and reporting.

The BHX Cyanide Emergency Response Plan includes contact details for the PBM External Affairs Manager who has responsibility for advising and liaising with external and internal stakeholders and responders/advisors during a cyanide emergency. Chapter 7.1 includes contact details for internal key contacts and the cyanide supplier and transport companies. The Plan states that the External Affairs department of PanAust Asia will make all external notifications of emergency situations and requests for external support.

Chapter 7.1 and 7.2 of the BHX Cyanide Emergency Response Plan includes the procedures and contact information for notification of internal and external stakeholders, responders and advisors, including the process for communication with the media through the PBM External Affairs Manager.

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.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 7.5 requiring response plans and remediation measures are incorporated into monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

BHX incorporates into its Cyanide Emergency Response Plan monitoring elements and remediation measures that account for the additional hazards of using cyanide treatment chemicals. The Plan describes the environmental considerations including chemical spills, tailings releases and cyanide spills. The Plan addresses the adverse impacts of ferrous sulphate in waterways and states that this should be avoided when handling environmental emergencies. The Plan describes the requirements for environmental sampling/monitoring and reporting.

The Plan includes procedures for recovery and/or neutralisation of wet or dry spills. Neutralisation is undertaken using ferrous sulphate. The Plan addresses recovery of small spills of cyanide and disposal of cyanide clean up debris.

Provision of alternative drinking water supply for BHX and local communities is addressed in the Plan.

The plan specifically prohibits the use of sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has or could be released into surface water.

The Plan addresses the need for monitoring of environment to identify extent of contamination or effectiveness of clean up measures. The use of an emergency cyanide monitoring kit is described. The sampling methodology is provided through technical advice from BHX environment specialists (as required in the (Plan)). The Plan references BHX's environmental monitoring and sampling procedures (SOPs).

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:

BHX is in FULL COMPLIANCE with Standard of Practice 7.6 requiring response procedures and capabilities are periodically evaluated and revised as needed.

The BHX document control process requires that the plan is reviewed annually by the BHX Process Manager as stated in the Plan. The current version of the Plan is Version 6. The Plan has been subject to annual review and update during each of the last three years.

Mock cyanide emergency drills are undertaken by BHX at least annually to test response procedures for various exposure scenarios relating to environmental and worker exposure. The outcomes from the emergency response drills have been used to evaluate and improve emergency planning. Records of drill exercises were reviewed during the audit.

De-brief reports from emergency drills are maintained at BHX. The Cyanide Emergency Response Plan describes the need for the plan to be reviewed after each cyanide emergency incident. There have been no cyanide emergency incidents since operations commenced at BHX.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 8.1 requiring workers are trained to understand the hazards associated with cyanide use.

The BHX Cyanide Induction programme includes cyanide hazard recognition.

All process plant personnel and contractors must complete the process induction and the cyanide induction to enter the processing plant. Entry to the process plant is limited to those personnel with the correct inductions completed.

Refresher training is conducted, as outlined in the Cyanide Management Plan and associated risk assessment of training needs.

Training records for cyanide awareness training are maintained by the process plant personnel. Copies of individual training records were reviewed during the audit.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 8.2 requiring appropriate personnel are trained to operate the facility according to systems and procedures that protect human health, the community and the environment.

Cyanide Induction Training is completed for all employees and contractors who work in the process plant area. The induction is valid for a year only. The induction includes: discussion of HCN risk and hazards; emergency response; safe work procedures; signage; emergency response; PPE; first aid; HCN monitor use; spill response and clean up.

Worker awareness and training in cyanide related Standard Work Procedures (SOPs) are included in the process department and relevant personnel training needs analysis. The SOP's provide a greater level of health and safety information relevant to specific tasks.

Employees are trained prior to working with cyanide and appropriate refresher training is conducted. All training is conducted by dedicated process trainers.

Testing of competency is completed for cyanide induction and process plant induction test via written evaluation. Records of these assessments were reviewed during this audit. Competency assessments including both theoretical and practical are conducted on all training packages related to the safe use of cyanide. A range of training records throughout the audit verification period were reviewed.

Standard of Practice 8.3

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

in full compliance with

The operation is in substantial compliance with Standard of Practice 8.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

BHX is in FULL COMPLIANCE with Standard of Practice 8.3 requiring appropriate workers and personnel are trained to respond to worker exposures and environmental releases of cyanide.

BHX Process Department personnel, maintenance personnel and other involved in cyanide unloading, mixing, production are trained in the procedures to be followed if cyanide is released. The training requirement is included in the Training Matrix.

Training records were reviewed during the audit. Review of the training records indicates that all current cyanide unloading, mixing, production and maintenance personnel have undertaken the cyanide induction refresher training each year.

Cyanide emergency response training is provided to Health and Safety, environment, process department and ERT members who are likely to be involved in emergency response for a cyanide event. The Cyanide Induction training addresses decontamination and first aid procedures. A check of the training matrix confirmed that all unloading, mixing, production and maintenance workers have undergone Cyanide Induction training annually. The Cyanide Spill and Decontamination Training package also undertaken by ERT members specifies the equipment use; PPE requirements; use of treatment chemicals; first aid; exposure minimisation; decontamination; clean up and disposal.

Decontamination and first aid response training is also provided to emergency response personnel as part of their ongoing weekly training in emergency response.

BHX ERT, Process department and others working in proximity to cyanide are required to participate in emergency response drills as outlined in the BHX Cyanide Emergency Response Plan. Records of cyanide emergency response drills have been reviewed and verify participation by ERT, process department, warehouse personnel and maintenance. At least one mock drill addressing cyanide has been undertaken each year, in addition to the weekly training drills undertaken by the ERT to test and improve their response skills.

Emergency Response Coordinators and members of the Emergency Response Team are trained in the procedures included in the Emergency Response Plan regarding cyanide, including the use of necessary response equipment

The Community Cyanide Awareness presentation includes basic awareness information on how cyanide is used at BHX, and emergency response information. The presentation is provided to external parties, including external medical providers. A record of community meetings where the cyanide awareness presentation was presented was reviewed through meeting minutes and photographic records.

BHX medical personnel have spent time working in the local hospital to enhance the mutual understanding of what assistance BHX may require from the hospital. The Community Cyanide Awareness presentation includes basic awareness information on how cyanide is used at BHX, and emergency response information. The presentation is provided to external parties, including external medical providers. A record of community meetings where the cyanide awareness presentation was presented was reviewed through meeting minutes and photographic records.

The cyanide spill and decontamination training and hazardous materials response training required for ERT members and personnel likely to be involved in emergency response is provided annually. Completion of annual training requirements is noted in the training matrix. Records of training refresher were available.

Mock cyanide emergency drills are undertaken by BHX to test response procedures for various exposure scenarios. Drills cover requirements of the Cyanide Emergency Response Plan and emergency response procedures including PPE, use of response equipment, minimising cyanide exposure, first aid provision, clean up and decontamination. At least one mock drill involving cyanide is completed annually, in addition to the weekly training drills undertaken by ERT members.

Debrief reports are prepared for evaluation of all drills completed. The reports include an evaluation of the strengths and weaknesses in the emergency response and proposed actions to improve responses.

The outcomes from the emergency response drills have been used to evaluate and improve emergency planning.

Hard copy and scanned training records are maintained for ERT personnel, including the names of the employee and the trainer, the date of the training, the topics covered and how the employee demonstrated an understanding of the training materials.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 9.1 requiring stakeholders are provided the opportunity to communicate issues of concern.

BHX has developed procedures and forms and has implemented processes for stakeholder communication of issues of concern which may include cyanide issues during operations.

There are five identified villages along the access road to the mine site from the main road which are deemed to be within an identified impact area if a cyanide incident were to occur.

The closest village is 19km by road and all communities are along the access road. Naiban (Chief of village) meetings are scheduled on regular intervals with all affected communities.

Notice boards in communities have drop boxes whereby community members can put forward written concerns. These are then transferred by BHX onto grievance forms. All grievances are entered into the action/event tracking system – INX.

There are also posters located on village noticeboards which contain 5 question and answer topics on cyanide (including pictures). These posters also advertise the contact phone number of the BHX community team.

Members of the community including village leaders, local school children and members of the Viang Veng District Authority attended site during the audit period as part of awareness raising activities. All visitors receive the visitor induction which includes information related to cyanide. Images of these visits were reviewed during the audit.

The Community team mobile phone number is advertised as the best contact method as many local villages do not have internet access. Written letters can also be received by the operation.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 9.2 requiring dialogue is initiated describing cyanide management procedures and responsively address identified concerns.

Procedures for interacting with project stakeholders have been identified and drafted. The procedures include provision of CN related information to local stakeholders via verbal and written information packages in local language.

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:

BHX is in FULL COMPLIANCE with Standard of Practice 9.3 requiring appropriate operational and environmental information regarding cyanide is made available to stakeholders.

BHX has community notice boards in local villages and the community Naiban meetings are in place to include information on operational awareness to local communities. Schedules for communications and presentations to communities are in place.

Plan/schedule for Naiban meetings: STIP Targets developed for the environment group and include planned meetings and awareness training for the local communities. Records of community meetings and awareness sessions maintained in INX.

Village Naiban meetings are used to disseminate information from monthly meetings verbally via loud speaker in local communities. It is acknowledged that some members of the community may be illiterate and as such BHX CN information for communities has been developed and includes the use of visual and pictorial information. Evidence of this was observed during the site audit.

BHX has procedures that describe how they make information publicly available relevant to confirmed cyanide release or exposures. No incidents of this nature have occurred during the audit period.