



SUSTAINABILITY
FUTURE GROWTH

**INTERNATIONAL CYANIDE MANAGEMENT CODE
GOLD MINING OPERATIONS**

GOLD FIELDS LIMITED: AGNEW GOLD MINE

**Agnew Gold Mine Recertification Audit
Summary Audit Report**

July 2016



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SUMMARY AUDIT REPORT

Name of Mine

Agnew Gold Mining Company Pty Ltd

Name of Mine Owner

Gold Fields Australia

Name of Mine Operator

Gold Fields Australia

Name of Responsible Manager

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LOCATION DETAIL AND DESCRIPTION OF OPERATION

The Agnew Gold Mining Company Pty Ltd (AGMC) site is located in the Eastern Goldfields region of Western Australia, approximately 630 km north east of Perth. The mine, a wholly owned subsidiary of Gold Fields Australia which was acquired in 2001, produces in excess of 250,000 ounces of gold annually.

AGMC's Emu Processing Plant includes a carbon in pulp (CIP) circuit to extract gold from processed ore. The two stage Grinding Circuit has a Gravity Circuit which treats a stream of slurry fed from 2 Knelson Concentrators. The main component of this Gravity Circuit is an Inline Leach Reactor which is designed to accept high-grade gold concentrates and uses cyanide to leach the gold into solution.

Agnew Gold Mine
Name of Mine


Signature of Lead Auditor

26th July 2016
Date

The CIP process involves mixing milled ore with lime and water to form a 45% solids slurry with a pH of approximately 10. A cyanide solution is used to extract gold (Au) from the slurry.

Carbon is added to the solution to capture gold via adsorption. The gold is then recovered from the carbon under high temperature and pressure using sodium hydroxide and sodium cyanide. Gold is plated onto stainless steel mesh via a process of electrowinning.

The primary waste product from the process is a slurry (tailings) containing reject fines, process chemicals and cyanide residues with an elevated pH. This tailings slurry is deposited into TSF3 (Redeemer In-pit Tailings Facility) which has been active since May 2004.

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

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26th July 2016

Agnew Gold Mine
Name of Mine



Signature of Lead Auditor

26th July 2016
Date

Names and Signatures of Other Auditors



John Miragliotta

26th July 2016

Date(s) of Audit

Inclusive of the period from 15th - 17th March 2016.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 1.1.

Australian Gold Reagents Pty Ltd (AGR) supplies liquid sodium cyanide from its Kwinana facility to Agnew Gold Mining Company Pty Ltd (AGMC) and was recertified in substantial compliance with the Production Codes of Practice on 13 March 2014 and fully compliant on 19 June 2014.

The sodium Cyanide Solution Supply Agreement between AGR and AGMC was signed on January 7, 2014. The Commencement Date was nominated as 1 February 2014 and Completion Date 31 January 2017. Prior to this contract, the cyanide was also supplied by AGR under a previous contract.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 2.1.

AGR was recertified as fully compliant with the Transport Codes of Practice on 13 June, 2013. The new written Sodium Cyanide Supply Agreement (MA-017-GFA-2014 Sodium Cyanide Solution Supply Agreement) between AGR and Agnew Gold Mining Company Pty Ltd (AGMC) does not include reference to specific responsibilities between the parties, however in accordance with the Code requirements, full compliance is achieved as AGR are a certified Code transporter.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 2.2.

AGR was recertified as fully compliant with the Transport Codes of Practice on 13 June, 2013. The new written Sodium Cyanide Supply Agreement (MA-017-GFA-2014 Sodium Cyanide Solution Supply Agreement) between AGR and Agnew Gold Mining Company Pty Ltd (AGMC) does not include reference to specific responsibilities between the parties, however in accordance with the Code requirements, full compliance is achieved as AGR are a certified Code transporter.

Chain of Custody records were reviewed during the audit to verify that the sodium cyanide was sourced from AGR Kwinana and transported by AGR's certified logistics chain.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 3.1.

Facilities for unloading, storing and mixing cyanide have been designed and constructed in accordance with sound and accepted engineering practices. These were subject to an upgrade during this audit period.

New cyanide unloading and storage tanks have been installed by the cyanide supplier AGR. The facilities have been designed and constructed in accordance with cyanide producers' guidelines, applicable jurisdictional rules and/or other sound and accepted engineering practices for these facilities.

AGR supplied the Manufacturer's Data Report (MDR) upon completion of the works which contains all required sign-off and QA/QC documentation that the facilities were built to design.

The concrete truck unloading pad was part of the new cyanide unloading and storage tank installation. The concrete pad is appropriately contoured to direct any spillage and wash down solution to a sump pump in the new tank compound. Appropriate bunding surrounds the pad to prevent any spillage overflow. This is located away from people and surface waters.

The tanks are fitted with alarms to prevent overtopping. The new Agnew unloading and storage tank installation contains two 70kL, self-bunded, removable storage tanks. They are also referred to as "Wrap Tanks" as each is a tank within an external tank. The tanks are located in an open area away from personnel. The area is adequately ventilated.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 3.2.

The operation does not hold empty cyanide containers on site. Sodium cyanide solution is delivered to site in isotainers that are transported via truck to Agnew. The isotainers are emptied immediately at site and are returned to the AGR Production facility to be refilled. They are not retained for any other purpose.

The operation has developed and implemented plans and procedures to prevent exposures and releases during cyanide unloading and mixing activities.

A procedure for delivery of sodium cyanide explains the tasks required when unloading sodium cyanide solution from AGR isotainers to the primary unloading tank and the transfer of cyanide from the unloading tank to the cyanide process tank. Returnable custom designed, trailer mounted isotainers are transported to site by road to deliver sodium cyanide solution.

Spillage or leakage is cleaned up immediately in accordance with site procedures. The cyanide unloading procedure requires a second individual to be present for the duration of the unloading process. A small room is strategically positioned so that the spotter can view the processes and stop all unloading in an emergency or if a problem occurs. The room contains a list and storage for all PPE requirements.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.1.

The Agnew Gold Mine operations have effectively implemented management controls, including procedures, manuals and maintenance systems, to ensure protection of health and the environment from its cyanide use. The operation continues to implement and regularly revise its documented management systems in place for all aspects of cyanide management, including contingency requirements due to upset conditions.

Documented procedures are revised when changes have occurred to cyanide facilities such as the replacement and upgrade of cyanide storage tanks. The in-pit tailings disposal at Agnew Gold is effectively managed through documented operating systems to ensure minimum freeboard requirements and to maintain cyanide concentrations below operating limits designed to protect wildlife. The operation does inspect cyanide facilities on an established and appropriate frequency to ensure they are functioning within design parameters. Documentation of these inspections is maintained

The operation uses a preventative maintenance system, SAP, that facilitates regular maintenance and inspection of cyanide facilities including tanks, pipelines, holding ponds, instrumentation and emergency response equipment. Records are effectively maintained for inspection and maintenance at Agnew over the period of certification.

The back-up generators are manually operated by the power provider company in case of emergency. Back-up generators are maintained and tested according to documented schedules.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.2.

The Agnew Gold Mine has continued to optimise cyanide use through blending of ore, introducing improvements to the monitoring of cyanide concentrations throughout the leach circuit, adjusting dosing rates based on monitoring data and adjusting the methods for recirculation of high strength cyanide solutions. The operation undertakes regular test work of new ore types to ensure cyanide addition rates are optimised.

Cyanide addition optimisation is tied to recovery and WAD cyanide management as defined in operational procedures. The strategy has been revised during the period of certification on the basis of improved online monitoring of cyanide concentrations throughout the circuit.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.3.

AGMC implements water management through monitoring and recording water levels and flows within in-pit storage and containment structures with a primary aim of ensuring sufficient water supplies for operations. However, the water balance also ensures sufficient water is available for dilution of tailings for cyanide controls when operating criteria are exceeded.

The operations manage containments systems holding cyanide solutions using overflow systems that prevent overtopping and which are monitored and managed from data collected daily. The in-pit tailings storage facility has significant excess capacity for storage beyond predicted storm water inflows. Water balance data is updated monthly with rainfall data, measured storage volumes and measured flows.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.4.

The operation has managed cyanide concentrations in open water to prevent impacts to wildlife through maintaining surface waters below 50 mg/l WAD CN except for 5 isolated short terms events over the 3-year certification period when immediate actions were taken in accordance with procedures to rectify high cyanide concentrations including implementation of measures to protect wildlife. No wildlife mortalities were recorded at the operation in the vicinity of open water sources during this audit period.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.5.

There is no direct discharge from the AGMC operations to surface waters. The operation has negative water balance whereby all available process tailings water is returned from the Redeemer in pit tailings facility to the process plant for re-use. There are no surface water bodies nearby 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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.6.

The operation monitors seepage from tailings facilities, including facilities no longer in use, to detect contamination in monitoring bores. Cyanide concentrations remain below the established statutory limit of 0.5mg/l WAD CN at all monitoring locations. Dried tailings from TSF2 are used for underground mine paste backfill. The dried tailings have been analysed for WAD CN with results showing no detection. Workers have been monitored for HCN exposure underground with no detection and AGMC has demonstrated that the paste backfill material poses no risk to workers or the environment.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.7.

All tanks containing cyanide are within bunded containment. Pipelines are all either within bund areas and are installed in spill containment launders.

During the audit period, a new cyanide unloading facility was constructed on-site by the cyanide manufacturer, AGR. The new Agnew unloading and storage tank installation contains two 70kL, self-bunded, removable storage tanks. They are also referred to as "Wrap Tanks" as each is a tank within an external tank.

AGR supplied the Manufacturer's Data Report (MDR) upon completion of the works which contains all required sign-off and QA/QC documentation that the facilities were built to design. This included confirmation of appropriate secondary containment capacity.

The Tailing delivery line to TSF3 and the return water line to the process facility are both within a bunded trench. Spill containment runoff ponds are also installed to contain spillage in the event of a pipe rupture. The bund areas are equipped with sump pumps and spillage within the bunds is returned to nominated process tanks.

No changes to the process area tank configuration occurred during this audit period. The operation has previously performed the required work to demonstrate that the capacity of existing and as-built bund shows the Leach Tank secondary containment exceeds required capacity by 15.1%. This was confirmed available during this audit. Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions.

All pipelines are located within appropriate secondary containment.


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

Agnew Gold Mine
Name of Mine


Signature of Lead Auditor

26th July 2016
Date

not in compliance with

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.8.

QA/QC programs were implemented during construction of cyanide facilities and verified during the previous recertification audit. Evidence that these documents are still available on site was confirmed during this audit.

During the audit period, a new cyanide unloading facility was constructed on-site by the cyanide manufacturer, AGR. An appropriate quality control and quality assurance programs was implemented during construction of the new cyanide unloading and storage facilities at AGMC.

Copies of the suite of design drawings and materials testing reports for the facility, designed by AGR, are held by the operation. AGR supplied the Manufacturer's Data Report (MDR) upon completion of the works which contains all required sign-off and QA/QC documentation that the facilities were built to design.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 4.9.

Monitoring procedures are in place and include all groundwater and wildlife monitoring activities undertaken for cyanide related activities. No surface water features are present on site.

Monitoring procedures have been developed by appropriately qualified and experienced environmental and chemistry professionals and include chain of custody requirements.

The field data forms for water and wildlife monitoring require that the environmental conditions including anthropogenic influences be recorded with the filed data. Completed forms were observed for accuracy and found to be compliant.

Wildlife mortalities are monitored for and recorded at the operation. No wildlife deaths within and nearby cyanide facilities were recorded during the audit period.

The frequency of monitoring of water quality in open ponds and groundwater and monitoring for wildlife at the TSF and return water ponds is appropriate for the current level of risk associated with CN WAD concentrations in the tailings discharge and in consideration of the in line monitoring of cyanide trends available through instrumentation at the tailings discharge from the leach circuit.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 5.1.

The current mine closure plan is sufficient to demonstrate that plans are in place for decommissioning of cyanide facilities.

This is an overarching document designed to guide whole of mine closure planning and includes high level elements of closure including process facilities, pipelines, ponds and tailings storages. The plan includes reference to decommissioning plans for processing and tailings facilities; post closure monitoring and management of surface water bodies. Decommissioning plans were reviewed and found to be appropriate for the conduct of decommissioning activities related to cyanide facilities.

Activities are scheduled and plans are reviewed on an appropriate frequency.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 5.2.

The operation has developed appropriate cost estimates to full fund cyanide decommissioning activities. A closure cost model has been developed by external consultants using cost forecasting tools (SCRE model) applied to all mine closure activities and is not specific to cyanide decommissioning activities. The closure cost estimate is developed on the basis of third party undertaking the decommissioning activities. Mine closure costs are reviewed on an annual basis and an updated SCRE model generated. Costs are signed off by designated management personnel within the operation.

The applicable jurisdiction has a financial mechanism responsible for covering site closure activities (the Mine Rehabilitation Fund). AGMC paid the required financial contributions to this fund during the recertification period.

The ICMI has advised that it has assessed the MRF and found that it meets the intent of this Standard of Practice. As such, AGMC's participation in this fund is sufficient to demonstrate compliance.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 6.1.

The operation has developed Task Instructions (TI) that describe how cyanide-related tasks should be conducted to minimise worker exposure. The TIs are accessible as controlled documents by all personnel on site via the SharePoint application. The TIs are filed in accordance with the Processing area.

SharePoint tracks the version history and allows the review period to be set. The review of the TI is managed by the Safety & Training Coordinator and the whole review process is overseen by Corporate. The TI's all specify the required personal protective equipment required for the task.

A Weekly Safety meeting is held every Thursday. These meetings are used as a forum for the Safety & Training Coordinator to inform the workforce of any significant changes that have been made to any of the TIs associated with their workplace. In addition, these meetings are used by the operators to highlight any health & safety issues associated with their tasks. A range of other tools are utilised by the operation to review how proposed changes can impact worker health and safety. Worker input is actively sought in these forums.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 6.2.

The operation has determined that as per standard practice in the gold industry, a pH of 10 will be used for limiting the evolution of hydrogen cyanide during operations. The pH is monitored via the pH probe in leach tank number 1. pH readings during the audit were verified at the pH meter at 10.2.

The operation uses personal monitoring devices, ToxiPros, to confirm that controls are adequate to limit worker exposure to hydrogen cyanide gas of 10 ppm on an instantaneous basis and 4.7 ppm continuously over an 8-hour period. The operation has designated the area where HCN monitor and radio MUST be worn – this area is identified within the induction and is sign posted.

The ToxiPros are sent offsite to GasTech Australia every 6 months for calibration. A fixed gas detector is present at the acid wash screen which is alarmed at 10ppm, as a back-up to the use of personal monitors. This detector is regularly inspected and calibrated.

The site inspection confirmed that warning signs, safety showers, eye wash station, fire extinguishers, pipe labels and MSDS's are all present, legible and in good working order as required.

The operation uses INX InControl as its action tracking system. A review of this system indicated that it was being used appropriately and evidence of actions and close-out was available for reviewed cyanide incidents.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 6.3.

The observer's hut at the unloading point and at the CIL control room has the emergency equipment such as oxygen gas, face masks/ breathing apparatus, alarm systems and means of communication. Breathing apparatus and gloves are also located at key points in the leach circuit. CN antidote kits are stored at the medical centre at the front gate. OxyViva equipment is available at strategic locations throughout the plant, including the operations control room.

Operators are in communication at all times through radio communications. Audible alarms are in place for emergency evacuation throughout the plant and high HCN concentrations at identified high-risk locations.

First aid and emergency response equipment is inspected and records of inspections are maintained in log sheets within the emergency response team facility and at the location of equipment.

The operation has developed specific written emergency plans including plans for release of HCN gas, spills of cyanide solution and transport emergencies. The Cyanide Release Procedure supplements the emergency response plans and provides specific procedures for containment, clean up and protection of human health and the environment.

Emergency Services Officers are onsite for all work shifts and are suitably qualified and authorised to provide first aid or medical assistance to workers exposed to cyanide. Cyanokits are only used when the patient is clearly deteriorating, despite oxygen administration, and there is a reasonable confidence that cyanide intoxication is the cause.

Procedures have been developed for transport of workers exposed to cyanide and local and regional hospitals are aware that cyanide is used on site and are familiar with response requirements. Mock drills related to cyanide incidents are conducted on a regular basis and lessons learned are recorded in the action tracking database for follow-up.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.1.

The operation has developed specific written emergency plans including plans for release of HCN gas, spills of cyanide solution and transport emergencies, as applicable to site scenarios. The plan considers the specific response actions including evacuation of workers, notifications to any workers on mining areas nearby to the site, use of PPE, first aid applications, medical response, incident management, clean up, monitoring, investigation and the requirement for corrective/preventative actions.

AGR, as the cyanide supplier, are responsible for transport of liquid NaCN from Kwinana to delivery into unloading point on the mine site. AGR's supply chain by road and rail to AGMC is fully certified to the ICMC Transport Protocols. The AGMC emergency response plan reflects transport responsibilities and includes details for notification to AGR for emergencies.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.2.

Stakeholders are represented on the local Emergency Management Area Committee (LEMAC) and are involved in the emergency response planning process. LEMAC, led by Leinster Police, is the forum used to communicate emergency response processes to and receive feedback from external stakeholders. There are no communities, other than the mine site employees, in the immediate surrounds of the mine site. The town of Leinster is located some 21 km to the north east. The LEMAC facilitates consultation between AGMC and the community on issues of emergency response.

The operations workforce is involved in planning for emergency response. Members of the processing and maintenance teams are involved in the planning process through input into documented plans and procedures, participation in drills and through training and inductions.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.3.

The cyanide related elements of the Emergency Response Plan consider all appropriate training, staffing levels, contact information and response duties related to the sites ability to respond to a cyanide emergency.

The site Emergency Response Plan has been discussed with LEMAC, led by Leinster Police, which is the forum used to communicate emergency response processes to and receive feedback from external stakeholders.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.4.

Separate procedures include details for appropriate emergency notification and reporting (internal and external and the media) and the call-out procedure and contact information lists which are updated regularly.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.5.

The Cyanide Release Procedure does describe specific remediation measures that are required to response to cyanide spills. The procedure includes neutralisation, soil removal and disposal of contaminated materials and decontamination of equipment.

The groundwater at the site is not used for drinking water and there are no surface water bodies nearby to the operations. The Emergency Management Plan, Sodium Cyanide release scenario, prohibits the use of ferrous sulphate to treat cyanide where treatment may result in release to surface waters

The cyanide release procedure includes consideration of requirements to monitor soils, groundwater, HCN gas and wildlife in the event of an accidental cyanide release. Methods for monitoring are references in the procedures as applicable.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 7.6.

AGMC's document management protocols require review of the Emergency Management Plan, Emergency Management Guideline and Cyanide Release Procedure annually. All documents had been reviewed in accordance with the revision schedule and records of review are maintained.

The Emergency Management Guidelines refer to the frequency of mock drills. The Emergency Services Offices (ESO) maintains records of regular mock drills, including chemical release drills. Hard copy emergency drill schedules are maintained in the ESO offices and signed off when each drill is complete. Emergency drills are scheduled by the ESO's monthly. Hard copy record of each drill event includes recommendations for improvements or corrective actions.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 8.1.

The operation has a range of training related to cyanide hazard recognition for its employees who may encounter cyanide.

All employees who wish to enter the process plant area must complete a cyanide awareness induction. Gold Fields utilise the induction package created by the cyanide producer AGR for this purpose.

Employees who are required to work in the process plant area also receive the Mill Workers Induction, which contains additional information related to the use of cyanide on site.

The refresher training is managed via the Training matrix which is maintained by the Safety Training Coordinator for all departments. The matrix includes details of inductions, internal training courses and accredited training courses and the dates associated with attainment and renewal.

The cyanide refresher training is conducted annually during October and November and is available to taken online.

All hardcopy records of the inductions are kept by the Safety Training Coordinator who also coordinates the annual refresher training for all employees. Records were reviewed for employees during the audit period, where it was confirmed that refresher training was occurring annually as required.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 8.2.

The operation has implemented an Accredited Training Process/System by which their Operators will be working towards Cert III Processing Training qualifications via the recognised prior learning and Goldfields Institute of Technology. This system has been successfully implemented and Gold Fields employees have obtained formal certification for their training. All operators undertake specific theory and competency-based training with respect to the different process areas onsite, example CIP and Reagents. The operators are required to be deemed competent in an area before they work unsupervised or without their "buddy". The training includes all the activities and tasks associated with work undertaken in these areas.

All training records are maintained both electronically and hard copy by the Safety Training Coordinator. The training matrix maintained by the Safety Training Coordinator records the status of assessment including dates achieved.

Training elements for each job are clearly identified in the training materials for each unit presented on site. The competency-based training undertaken by the Operators is provided to by the Crew Supervisors onsite. Onsite trainers possess appropriate training certificates, holding a Certificate IV in Training and Assessment (TAE).

All employees who wish to enter the process plant area must complete a cyanide awareness induction. Gold Fields utilise the induction package created by the cyanide producer AGR for this purpose. Employees and contractors are required to undertake this prior to working with cyanide. Employees who are required to work in the process plant area also receive the Mill Workers Induction, which contains additional information related to the use of cyanide on site.

For more detailed training on site based procedures, all operators undertake specific theory and competency-based training with respect to the different process areas onsite, example CIP and Reagents.

Refresher training is conducted and managed via the Training matrix, which is maintained by the Safety Training Coordinator for all departments. A combination of both theoretical and practical assessment is undertaken to verify the effectiveness of training conducted on site. Records of these completed assessments were reviewed during the audit.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 8.3.

Workers in cyanide unloading; reagents storage; processing and maintenance personnel are trained in working with cyanide including response to cyanide release. All operators undertake specific theory and competency-based training with respect to the different process areas onsite, including CIP and Reagents. The training includes all the activities and tasks associated with work undertaken in these areas, including the procedures to be followed if cyanide is released.

Processing's Safety & Training Coordinator conducts yearly cyanide incident response training with the Mill Maintenance and Processing Department workforce. The training includes both theory and practical exercises. Copies of the training records are filed in the individual operator's training files and in the Safety & Training Coordinator's folders on the Agnew network drives.

Training of EMT for cyanide emergencies includes the use of response equipment, and is undertaken as part of the monthly scheduled training programme. Records of training are maintained. Hazmat training provided to the Emergency Response team members includes decontamination and first aid procedures. These procedures are also detailed in the Cyanide Release Procedure. Records maintained by the ERT include hard copy evaluation forms that record the results of mock drills including any corrective actions - which may include additional training or adaptation of existing training.

Offsite emergency responders are represented by a local committee - LEMAC, led by Leinster Police, which is the forum used to communicate emergency response processes to and receive feedback from external stakeholders.

All training records are maintained both electronically and hard copy by the Safety Training Coordinator. The training matrix maintained by the Safety Training Coordinator records the status of assessment including dates achieved. The records retained include the names of the employee and the trainer, the date of training, the topics covered, and if 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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 9.1.

Despite being in a remote location with a limited range of stakeholders present, the operation does provide the opportunity for those stakeholders to communicate any concerns regarding the management of cyanide.

The primary opportunity for communication is via its participation in the Local Emergency Management Committee (LEMC) and direct communications with neighbouring pastoralists. Minutes of these meeting were observed during the audit.

Members of local Indigenous groups are also invited to site every year, where a presentation is given that includes information related to use of cyanide on site.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 9.2.

Despite being in a remote location with a limited range of stakeholders present, the operation does provide the opportunity for those stakeholders to communicate any concerns regarding the management of cyanide.

The primary opportunity for communication is via its participation in the Local Emergency Management Committee (LEMC) and direct communications with neighbouring pastoralists. Minutes of these meeting were observed during the audit.

Members of local Indigenous groups are also invited to site every year, where a presentation is given that includes information related to use of cyanide on site.

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

Basis for this Finding/Deficiencies Identified:

Agnew is in Full Compliance with Standard of Practice 9.3.

Written descriptions of cyanide use have been developed and presented to stakeholders. Site open day presentations include discussion on cyanide management on site.

Minutes of LEMC meetings show that discussions were held on cyanide management on site. Information related to cyanide management has been tabled in the meetings.

The operation has determined that their stakeholders are literate and that dissemination of information in other forms is not required.

Gold Fields communicates its environmental and occupational health and safety performance annually through the integrated Annual Report and the Global Reporting Initiative (GRI). These reports contain details of safety and environmental incidents, including cyanide related incidents and incidents that result in statutory non compliances or investigations.