INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Production Summary Certification Audit Report (Warehouse and Incinerator)

AfriChem Dompim Warehouse Facility Dompim Pepesa-Western Region, Ghana

5th – 7th November 2019

For the International Cyanide Management Code

Name of Operation:	AfriChem Dompim Warehouse Facility
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Location detail and description of operation

The Dompim facility of AfriChem Ghana Limited is located off the Tarkwa-to-Takoradi Highway, in the Dompim Pepesa-Western Region of Ghana, approximately 15km from Tarkwa.

The AfriChem Dompim facility's main activities are as follows: -

- Supply of chemicals and the operation of a metallurgical laboratory, and the manufacture of antiscalant and flotation chemicals for the mines.
- Dismantling of cyanide packaging waste at customer mine site.
- Arrange transport from mine site to AfriChem Dompim site.
- Unpack containers on site for onward incineration.
- Incineration of cyanide packaging waste (boxes, sacks & rubber).

Cyanide-related Activities

1.Introduction and Context

AfriChem provides a service to gold mines to dismantle their cyanide briquette packaging (Wooden boxes, polypropylene bag, plastic outer bag), load it into a shipping container, seal it, and transport it, using ICMI-certified transporters, from the mine to the AfriChem Dompim facility. At the facility, the dismantled packaging is temporarily stored, awaiting incineration in the licensed AfriChem incinerator on site.

The current scale of operations is very small with approximately two loads per month from one mine coming to site, resulting in two partial-load incinerations per month. There may be an increased scale of operations if additional contracts are negotiated with other gold mines who are ICMI signatories.

At present, no full cyanide boxes are stored in the NTI bonded warehouse although the facility has been licensed for storage by the Ghana Environmental Protection Agency

(EPA). It is reported that should the facility commence the storage of full cyanide boxes or upscale cyanide packaging handling; a change management exercise will be undertaken before this commences.

2.Dismantling

A team from AfriChem is dispatched to the mine where they disassemble the cyanide briquette boxes and pack them into containers for transport. The mine has already rinsed and decontaminated the cyanide packaging.

3.Transport

Transport of the container from the mine to the AfriChem Dompim facility is then organised with the mine's ICMI-certified transporter.

4.Storage

On arrival, the container is unloaded into the site's storage warehouse, pending incineration.

5.Incineration

The cyanide packing is transported, using a fork lift truck, from the warehouse to the incinerator where it is disposed of.

6.Ash Disposal

Once the incineration is completed, the furnace ash and particulates are stored in appropriate containers and disposed of at the GSR Wassa Mine tailings dam. AfriChem has an MoU with the mine to dispose hazardous waste at their tailings dam.

1. OPERATIONS: Design, construct and operate cyanide production facilities to prevent release of cyanide.

Production Practice1.1: Design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures.

X in full compliance with

The operation is □ in substantial compliance with Production Practice 1.1

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The NTI bonded warehouse is used to store the decontaminated, disassembled cyanide briquette packaging prior to incineration. The warehouse is constructed with an impermeable concrete floor gently sloping to the centre to drain any collected liquids. The walls and roof are constructed from zinc alum sheets. The incinerator is primarily constructed of mild steel, conditioned for high temperatures. The area in front of the incinerator is all concreted and a fork lift truck brings packaging from the warehouse to the incinerator on a concrete surface along the entire route to the incinerator.
The incinerator is a small MACROburn waste incinerator, Ghana EPA licensed, built by Macrotech CC, South Africa, and operated at between 1200 and 1800-degrees C. The commissioning certificate was sighted, signed by the Macrotech Electrician and Incinerator Installer and the AfriChem Director: Administration.
No QA/QC program for the warehouse and incinerator were available but a Visual Condition Assessment Inspection Report, July 2019 by Ing Frederick Owusu, Civil Engineer (Reg 09697) covering the whole site, including the NTI Warehouse and the incinerator, was reviewed. The Engineer was made aware of the fact that the warehouse and incinerator would be used for storage and disposal of cyanide, respectively. No significant issues were identified affecting the warehouse or the incinerator.
There are no interlocks on the incinerator as these are not necessary. The site has a back-up generator in place which comes in to operation after 5 seconds and supplies power for the entire site for up to 24 hours on one tank of fuel. Power failure has no impact upon the operation of the incineration process.
There is no solid or liquid cyanide stored on site. Used decontaminated, cyanide packaging is stored temporarily in the NTI warehouse prior to being incinerated. There are no cyanide process or storage tanks. There are no cyanide solutions, cyanide pipelines or spill prevention or containment measures on site.

Production Practice 1.2: Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

X in full compliance with 

The operation is □ in substantial compliance with **Production Practice 1.2**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The site has an operating manual which includes Standard Operating Procedures (SOPs) and Operational Guidelines and Requirements. The procedures also include relevant pre-work inspections and appropriate PPE and abnormal situations such as overfilling, power outages, blockages, damage to bags and broken or damaged handles, residues in bag and hopper and dealing with other abnormal and emergency situations.
The procedures include: - Loading of Chemicals in IBC Box; Loading of Sodium Cyanide; Offloading of Sodium Cyanide; Offloading of Chemicals from a Container; Empty Cyanide IBC and FIBC Handling; Empty Cyanide IBC and FIBC Incineration; Manufacturing of Antiscallents and Froth Flotation Chemicals. The Operational Guidelines and Requirements cover the following sections: -

- 2.1 Occupational Health and Hygiene
- 2.2 Site Safety
- 2.3 Inspections and Audits
- 2.4 HSE Training
- 2.5 MSDSs
- 2.6 Incident and Accident Management
- 2.8 Waste Management
- 2.9 Preventative Management
- 2.10 Risk Management
- 2.11 Permit to Work
- 2.12 PPE
- 2.14 Working at Customer Mine Site

Furthermore, the site has an operational EPA environmental permit with conditions that include requirements covering: - Legal Compliance, Waste Management, Management of Incinerator Effect, Material Storage Handling and Transportation, Traffic Management, Spills Management, Emergency Response, Air Quality, Environmental Quality Monitoring, and Noise and Sanitation.
Current volumes of waste cyanide packaging (1-2 part loads per month in the incinerator) are deemed insufficient to warrant controls for cyanide-related upsets. However, the Emergency Response Plan does include contingencies for cleaning up of cyanide spills. The incinerator manual also includes notes on trouble shooting for incinerator operation.
There is a Management of Change Operational Guideline in place and it was used when the installation of CCTV cameras was planned and when the construction of an extra shed (NTI warehouse) was planned. The guidelines will be used when increased volumes of cyanide come to site.
No secondary containment areas are in place to collect cyanide-contaminated water because it is not needed.
Planned Maintenance (PM) is presently undertaken using manual checklists. Work is currently underway to develop a spreadsheet-based asset register and linked PM system and calendar of PM events.

Warehouse PM

The Forklift Daily Pre-Start Checklist covering 22 operational items was reviewed for 3-11-19 and 2-11-19. The OEM (Original Equipment Manufacturer) inspection records for forklift (minimum frequency is 250 hours but OEM inspection visits are more frequent as the 250 hours takes a long time to be reached) were reviewed. In terms of on-going repairs, replacement of battery charger (30-08-19), oil leakage (10-8-19) and frequent low battery voltage (10-6-19) were noted.

Incinerator PM

There is a monthly maintenance activities checklist in place and completed examples dated 22-10-2019 and 23-9-2019 were sighted. There is also a pre-task incinerator inspection checklist and examples for 7/10/19 and 30-9-19 were sighted.

General PM

There is a Weekly Facility Inspection Checklist covering Office and General Yard, Laboratory, Kuffour Warehouse, NTI Warehouse, Blending and Manufacturing Area, Incinerator Area, and Equipment (Safety Showers, Fire extinguishers, HCN Gas detectors, First Aid kit and hand and power tools). A completed example of the checklist for 28-10-19 was reviewed.

No secondary containment areas are in place to collect cyanide-contaminated water. Any cyanide-contaminated water that collects in the centre drainage area in the NTI warehouse would be treated as a cyanide spill and cleaned up as per 6.2 Spills in the Emergency Response Plan. Cyanide contaminated solids are disposed of in the incinerator.

The cyanide packaging is stored in the NTI warehouse. The quantities of cyanide residue inside the packaging are very low because the packaging has been rinsed/decontaminated at the mine site. Thus, the potential for gas generation is low. Procedures for entering the warehouse include prior cross-ventilation on opening of the warehouse and HCN gas monitoring using personal monitors. The use of louvres in the warehouse is problematic because of variable wind-blown rainfall that is experienced. The warehouse has wind-driven ventilators in the roof which provide air movement to minimise gas build-up.

The site is a secure, fully enclosed, walled area with 24-hour security control. The warehouse is a locked, bonded warehouse that can only be opened in the presence of a Customs Officer who also holds the keys. The site is under full CCTV coverage externally as well as key internal areas such as the inside of the warehouses. Public access is prohibited and any visitors are screened and must be accompanied by a company employee whilst on site.

The site is governed by legislation covering the management of empty cyanide packaging. – Minerals & Mining (Health & Safety and Technical Regulations, 2012 (L.I.2182), Section 228 (3)a stipulating that empty packaging must be handled as hazardous material until it is decontaminated and disposed of or destroyed. The packaging is disassembled at the mine site, and packed into a sealed and locked container for transport to the AfriChem site.

Production Practice 1.3: Inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 1.3**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The site carries out a Weekly Facility Inspection as per the Weekly Facility Inspection Checklist (See 1.2 above), as required under the AfriChem Operational Manual. The site contains no tanks, pipelines, containments, or cyanide production facilities.
There is a pre-start incinerator checklist and a monthly maintenance activities checklist in place.
Based upon an evaluation of the very limited cyanide-related activities on site, the auditor deems the inspection frequencies sufficient to assure that equipment is functioning within design parameters.
The incinerator pre-task inspections and monthly maintenance inspections are adequate because the incinerator is used infrequently. (One to two times per month.)

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

Production Practice 2.1: Develop and implement procedures to protect plant personnel from exposure to cyanide.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 2.1**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The AfriChem Ghana Operational Manual, which contains Operational Guidelines and Requirements and SOPs covering all operational activities on site was reviewed.
These cover the disassembly of the cyanide packaging at the mine site, loading into a shipping container, organising of the transport of the container to AfriChem, unpacking of the container, the transport of the packing to the incinerator, and the incineration of the packaging. The Operational Manual requires that non-routine activities shall be preceded by risk assessments. (Section 2.10 Risk Management, subsection 2,10.2 ii). Emergency operations are covered in the Emergency Response Plan. All staff are trained in carrying out risk assessments.
No feasible cyanide scenario affecting maintenance has been identified at this stage of operations.
Interaction with workers (only 12 in total on site) is through Health and Safety meetings, tool box talks and risk assessments. Example: - an operator suggested replacing the full heavy fire protection suit, originally worn by the incinerator operator with a light weight, heat resistant apron. This was tested and found to be effective, safe and comfortable.

Example: to avoid having to change contact phone numbers for the ERT, a member suggested that all members keep one specific number/phone for emergency purposes. This was accepted and implemented.
There are three Honeywell GasAlert Extreme portable HCN gas monitors on site. They are kept by the site supervisor and issued to workers, as necessary. There are three additional monitors which are unused and kept in the store, in reserve. Monitors are set to alarm at 4.7 ppm cyanide and at 10 ppm. Should HCN gas exceed set levels, procedures are in place in the AfriChem Operational Manual to exit the area, and utilise full face mask and canister, should there be a need for work to continue. Where HCN gas levels detected are above 10 ppm, personnel are required to leave the area. The Honeywell GasAlert Extreme portable HCN gas monitors are calibrated 6-monthly as per manufacturers recommendations. The equipment comes with instructions on how to calibrate the monitors and key staff on site are competent to calibrate the instruments. The cyanide calibration gas test cylinder used to calibrate monitors was sighted and inspected. Calibration certificates were sighted and sampled.
At current operating levels, there is insufficient quantities of cyanide packaging and waste being handled to warrant a "hot spot" area. In practice, the NTI warehouse and incinerator are signposted as being potential cyanide hot spot areas. Should quantities handled increase in future, it was reported that the site will undertake appropriate cyanide hot spot surveys.
Currently, quantities of cyanide packaging handled and frequencies of loads delivered is very low and do not warrant the use of a buddy. No formal buddy system is in place yet but when quantities increase, it will be introduced.
Currently, when AfriChem employees visit mines to disassemble cyanide boxes and packaging, they always work in pairs but they are not functioning as buddies for each other. However, the driver monitors the two disassembling the packaging from a distance.
On appointment, all employees undergo a medical assessment. The Occupational Health and Hygiene section of the Operational Manual requires periodic health assessment, particularly prior to assuming a duty. The site has a practice of supplying overalls as part of PPE and takes responsibility for the laundering of the overalls. At the present time, the numbers of loads of cyanide packaging and the quantities of cyanide that they contain is deemed to be too low to pose a risk of contamination. Abnormal occurrences would be dealt with in terms of the ERP.
Warning and instructional signs throughout the site, warning of hazards and requiring appropriate PPE in different areas were sighted during the site inspection.

Production Practice 2.2: Develop and implement plans and procedures for rapid and effective response to cyanide exposure.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 2.2**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The AfriChem Ghana Ltd Emergency Response Plan, Rev 4, dated 10th September 2019 is in place and includes reference to responses to cyanide abnormal and emergency conditions.
There is one safety shower and eye wash station on site adjoining the incinerator area. This is inspected weekly under the weekly facility inspection. With respect to fire extinguishers, there are 8 x 9kg, 2 x 6kg, and 2 x 25kg (all dry powder) extinguishers, and 1 x 5kg CO_2 cylinder extinguisher. They are all inspected weekly in terms of the weekly Facility Inspection Checklist. The fire extinguishers are serviced annually by Thompson Fireworks (fire and safety engineering service providers).
Due to low quantities of waste disposed of, which contain very low quantities of cyanide (Less than one full incinerator load burnt once or twice per month), site first aid for cyanide is only oxygen administration. A resuscitator is available in the Emergency Response Cabin. Potable water is freely available on site. Cell phones are used to communicate emergencies. No antidote is kept on site. First Aid kits are inspected monthly in terms of the weekly Facility Inspection Checklist. The Emergency Response Cabin is inspected monthly. (Appendix 2 of the ERP- - Emergency Response Cabin checklist.) MSDSs are available on site at various locations. Different versions are available including the AGR MSDS, which is the cyanide supplier of the main client mine, is available.
There are no storage tanks, process tanks, containers or piping containing cyanide on site so no labelling is necessary. The facility does not have a decontamination policy or procedure for employees, contractors and visitors leaving areas with the potential for skin exposure to cyanide because low levels of cyanide in packaging make the risk negligible.
All employees are trained St Johns Ambulance First Aiders. However, if a cyanide exposure were to occur, the only cyanide first aid administered would be oxygen and an ambulance would be called to take the patient to hospital. The preferred hospital is the AngloGold Ashanti Sam Jonah hospital which holds stocks of cyanide antidote and services the AngloGold Ashanti Iduapriem Gold Mine, which is an ICMI certified gold mine.
Mock drills are carried out, including cyanide drills. A suspected cyanide gassing drill at the incinerator was carried out on 10 September 2019. Evaluation noted that some of the items in the Emergency Response Cabin were not in stock. (No traffic cones and only 6 instead of 8 disposable overalls.)
There have never been any cyanide exposure incidents or spills since the site commenced operation in 2016. The Operational Manual, under Section 2.6, Incident and Accident Management, requires that all incidents and accidents will be reported and investigated.

3. MONITORING: Ensure that process controls are protective of the environment.

Production Practice 3.1: Conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 3.1**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The facility does have a potential direct discharge to surface water via a small stream that runs past the site. The discharge is below 0.05 mg/l WAD cyanide. However, the risk of this discharge would only occur when cyanide was being handled, which currently occurs briefly only twice per month. Once frequency increases, a change management exercise would address risk management on this matter. Monitoring is undertaken both up and down stream of the site and all samples were below the limits of detection. The facility does not have an indirect discharge to surface water. The Ghana EPA samples were also below limits of detection. The facility's production boreholes sampling also showed cyanide below limits of detection.
The site incinerator is licenced by the Ghana Environmental Protection Agency, expiring 2 November 2019. The Permit renewal application is being processed and an EPA letter dated 24th October 2019 confirming that the "…Environmental Permit Certificate will be issued shortly…" was sighted. The EPA Environmental Permit was issued on 16th December 2019. The new Permit was sighted. The AfriChem Environmental Management Plan 2020-2022. Section 5.7 Air Emissions, Table 5.2 Air Quality Monitoring Results, was sighted which showed that stack emissions with incinerator operation are <M 0.01 which is less than the limits of detection. In view of low levels of cyanide being processed on site, the frequencies are deemed adequate to characterize the medium being monitored and to identify changes in a timely manner.
Monitoring is established, based upon the risks identified and the results noted. This is under continuous review by the site and the authorities and will be adjusted if changing circumstances arise.

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

Production Practice 4.1: Train employees to operate the plant in a manner that minimizes the potential for cyanide exposures and releases.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 4.1**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
All staff are trained in basic cyanide awareness. The training course covers: - what is cyanide? sources of cyanide, properties of cyanide, dangers of cyanide, cyanide poisoning, safe handling of cyanide, storage of cyanide, emergency response and

transportation. A short quiz is given after the training and the pass mark is 50%.
The site provides theoretical training in Personal Protective Equipment (PPE) – what it is, different types, why used, when to use, storage of PPE, maintaining PPE, provision and replacement, and duties of employees regarding PPE: this is supported by practical training, applying the lessons learnt, and handling the equipment.
Section 2.4 HSE Training, in the Operational manual, covers both HSE and task training. Section iv states that new employees will undergo task training (using the SOPs) and assessment by supervisors to confirm competency. Section v states that employees will undergo regular job specific training for all routine and non-routine jobs.
Section vi states that training needs and requirements shall be identified in a Training Matrix. AfriChem Training Matrix which covers all positions on site, in terms of training requirements was reviewed. This contained: - site induction; sodium cyanide awareness; risk assessment; incident management; firefighting; MSDSs; PPE; Fatigue Management; Management of Change; Emergency Response; Box dismantling; Defensive driving; Cyanide waste Handling and Incineration; First Aid (every three years); Spills clean-up and decontamination; Loading and off-loading operations; and dangerous goods transport. Training elements are based upon the SOPs and the Guidelines and requirements in the Operational Manual. Training is provided by St Johns Ambulance qualified training staff, and Ghana Fire Service Personnel. Where appropriate, external trainers are brought in to conduct training, HSE training is undertaken by the external SHE consultant, the Director and the Site Supervisor. Task training is conducted by the Site supervisor. In Section 2.4 HSE Training, in the Operational Manual, Section iv states that new employees will undergo task training (using the SOPs) and assessment by supervisors to confirm competency. Planned Task Observations are informally undertaken by the site supervisor and recorded in his diary. It is planned to introduce a more formal documented system.

Production Practice 4.2: Train employees to respond to cyanide exposures and releases.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 4.2**

□ not in compliance with

□ not subject to

Summarize the basis for this Finding/Deficiencies Identified:
Training for the workers in the procedures to be followed if a cyanide release is discovered, is covered under the Training Matrix referring to emergency response, incident management, spill clean-up and decontamination. Drills are undertaken routinely twice per annum. However, recently, four drills have been undertaken in the past six months. Learning points are included in the Action Tracker for follow-up. With regard to determining if personnel have the knowledge and skills required for effective response, and if training procedures are revised if deficiencies are identified, there have been insufficient drills to draw any clear conclusions on training effectiveness,

to date. However, it is planned to review effectiveness over time. Learning points are included in the Action Tracker. Any deficiencies identified will cause the SOPs to be reviewed.
Records are kept using a training attendance sheet and these are filed. Currently all training records are kept in one file because the size of the operation is too small to warrant individual separate filing. This will be reviewed over time.

5. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities.

Production Practice 5.1: Prepare detailed emergency response plans for potential cyanide releases.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.1**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The AfriChem Ghana Ltd Emergency Response Plan, Rev 4, dated 10th September 2019 includes reference to responses to cyanide abnormal and emergency conditions. Owing to the very low levels of cyanide potentially handled, the formal scenarios listed below do not necessarily apply. The primary cyanide emergency scenarios and responses identified are as follows: - Solid Sodium Cyanide Spill – inside a shipping container; Solid Cyanide Spill – Inside Storage Facility; Solid Sodium Cyanide Spill – Outside Storage Facility; Shipping Container Decontamination; Handling Wet Sodium Cyanide; and Sodium Cyanide Spill to Waterway.
Site evacuation is covered in Appendix 5 – Site Layout and Fire Evacuation Plan and ERP Section 4.5.5 covers actions of nearby community members. Only medical oxygen is administered on site. Antidote is only administered by the local hospital and medical facilities. Control of releases at their source and containment, assessment, mitigation and future prevention of releases is covered under Section 3 in the ERP and in the Operational Manual, section 2.6 Incident and Accident Management.

Production Practice 5.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.2**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
Section 5.2, Interested Parties and Stakeholder Consultation, describes the consultations with stakeholders on the ERP that were undertaken by AfriChem.
In section 5.2 of the ERP, it is stated that AfriChem is committed to conducting regular reviews of the ERP and inviting all parties involved in mock drills to evaluate the effectiveness of the ERP. Minutes of a meeting were sighted of interactions with Chiefs and Opinion Leaders on AfriChem operations including employment, Emergency Response and Monitoring, held at the Dompim Palace on 20th December 2017. This was attended by seven people including the Chief of Dompim, Tufuhene (the Chief's Advisor) of Dompim, and Krontihene (Deputy Chief) of Dompim.
A meeting was held with the Divisional Commander of the Ghana Police Service Tarkwa (9th August 2019). A letter was submitted to the Municipal Fire Officer of the Tarkwa Fire Station of the Ghana National Fire Service 18th August 2019 describing key issues to be considered when fighting a fire involving cyanide. The letter was acknowledged and signed for on 11th October 2019. If there are changes in the Plan content, these will be communicated, as appropriate, to the authorities.

Production Practice 5.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.3**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
In the ERP section 4.4.1, the Managing Director has overall control and direction of the emergency and coordinates response actions with the designated Emergency Response Coordinator. The MD has explicit authority to commit the necessary response resources.
In section 4.1 Emergency Response Team, the Director is designated as the Emergency Response Coordinator. Furthermore, Table 5.1 lists the Emergency Response Team members. It should be noted that there are only 12 staff in total working on the site. Section 5.1 of the ERP provides details of emergency team training. The emergency contact list for ERT members and the coordinators and stakeholders are included in Table 5.1 and Appendix 1. The duties and responsibilities of coordinators and team members are documented in section 4.4 of the ERP from 3.4.1 - 4.4.4. Appendix 2, Emergency Response Equipment check sheet, lists all emergency response equipment available on site. The role of Support Personnel is described in Section 4.5. The outside entities have been communicated with and are aware of their involvement. This will be tested and confirmed in future mock drills.

Production Practice 5.4: Develop procedures for internal and external emergency notification and reporting.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.4**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The Managing Director informs stakeholders, authorities and regulatory agencies using the contacts list in Appendix 1 and the media via Section 5.6 of the ERP.

Production Practice 5.5: Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.5**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The Plan describes specific, appropriate remediation measures, such as disposal and neutralization of solutions and solids, decontamination of soils and other contaminated media and management and disposal of spill clean-up debris in sections 3.3 and 3.5. Under section 6.4.6, it is stated that AfriChem will not, in accordance with ICMI requirements, add chemicals to a flowing waterway in the event of a cyanide spill. Section 3.5.7 of the ERP covers Environmental Monitoring.

Production Practice 5.6: Periodically evaluate response procedures and capabilities and revise them as needed.

X in full compliance with

The operation is □ in substantial compliance with **Production Practice 5.6**

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The ERP is reviewed annually. Under 5.3 Mock Drills, it is stated that the ERP will be tested and evaluated using realistic simulation exercises. The scenarios are identified in table 5.3 and include:- Fire at the facility; Fire at the cyanide storage area; Cyanide spills; Transport accidents, Cyanide spills in waterways; and High concentrations of HCN gas at the incinerator area. Follow up and Review is covered in Section 5.5.