

***INTERNATIONAL CYANIDE
MANAGEMENT INSTITUTE***

***Cyanide Code Compliance Audit
Gold Mining Operations***

Summary Audit Report

***Harmony Gold Mines Limited
Doornkop Gold Mine
South Africa***

12th – 16th April 2010

Name of Operation: Doornkop Gold Mine
Name of Operation Owner: Harmony Gold Mines Limited
Name of Operation Operator: Harmony Gold Mines Limited
Name of Responsible Manager: Paul van As, Plant Manager
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Location detail and description of operation:

The Doornkop Gold Plant is situated 15km south of Krugersdorp, next to the R558 road en route to Lenasia and 25 km west of Johannesburg in South Africa.

The gold plant consists of a milling section for grinding of ore, thickeners for dewatering (pulp for leach feed), a leach section for dissolution of gold, using liquid sodium cyanide as one of the reagents, Carbon in Pulp for adsorption of dissolved gold and a recovery section which consists of elution, electro-wining and a smelthouse. All tailings are pumped to a Tailings Storage Facility, adjacent to the plant on the northern side.



Auditor's Finding

This operation is

- in full compliance
- in substantial compliance *(see below)
- not in compliance

with the International Cyanide Management Code.

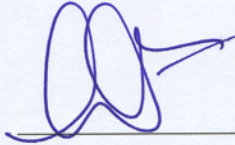
* The Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: Eagle Environmental

Audit Team Leader: Arend Hoogervorst

E-mail: arend@eagleenv.co.za

Names and Signatures of Other Auditors:

Name : Dawid M. L Viljoen Signature  Date: 2/11/2010

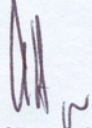
Dates of Audit: 12th – 16th April 2010

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.


Doornkop Gold Mine

Facility


Signature of Lead Auditor

2/11/2010
Date

Doornkop Gold Mine


Signature of Lead Auditor

2nd November 2010

Auditor's Findings

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.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 1.1**
not in compliance with

Basis for this Finding/Deficiencies Identified:

There is a Harmony Group-wide, cyanide supply contract, covering all Harmony Gold Plants, in place with SASOL Polymers, as the sole supplier of liquid Sodium Cyanide, delivered by bulk tanker. This supply contract includes Doornkop Gold Mine. SASOL Polymers is a signatory to the Cyanide Code and was re-certified as a fully compliant Production Facility with the ICMI Cyanide Code on 2 March 2010.

2. TRANSPORTATION: Protect communities and the environment during cyanide transport.

Standard of Practice 2.1: Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 2.1**
not in compliance with



Basis for this Finding/Deficiencies Identified:

There is a formal agreement memorandum between SASOL Infrachem and Doornkop Gold Mine which covers the responsibilities and requirements for safety, security, unloading, emergency response (spills prevention and clean-up), route planning and risk assessments, community liaison, emergency response resource access and availability, training, and communication.

Standard of Practice 2.2: Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 2.2**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The agreement memorandum between SASOL Infrachem and Doornkop Gold Mine requires that transporters be certified under the Code. SASOL Infrachem SiLog was re-certified on 13 January 2010 as a fully ICMI Code compliant transporter, thus meeting all the requirements for appropriate emergency response planning and cyanide management.

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 **X in substantial compliance with Standard of Practice 3.1**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The operation only uses liquid cyanide delivered by bulk tanker and design drawings for the cyanide off-loading and storage area were sighted. The structures were designed and located on concrete and bitumen and away from people and surface waters and built with

materials appropriate for use with cyanide. The storage area is situated within a security fenced area with 24/7 access control and separation to prevent mixing with incompatible materials. The cyanide storage area is further fenced in and locked with only authorised staff allowed into the area. The current cyanide dosing ring main has historically caused problems with leaks which have been exacerbated by the presence of a lagging system to prevent freezing, which has further complicated the management and decontamination of leaks. A project to change the outdated design to eliminate the ring main / mono pump / valve cyanide dosing system is in place. As this project is not yet complete, a Corrective Action Plan was agreed upon to see this project finalised.

The cyanide tanks are equipped with ultrasonic level measurement with alarms on the PLC (Programmable Logic Controller) in the control room. The tanks are interconnected. Cyanide is ordered only when the levels are lower than the specified levels. The procedure covering cyanide unloading was reviewed and found to be effective.

Standard of Practice 3.2: Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 3.2**
not in compliance with

Basis for this Finding/Deficiencies Identified:

Only liquid cyanide is used and is delivered by bulk tanker to storage tanks. No mixing of cyanide is undertaken. The offloading procedure is detailed, using a buddy in the process, lists the necessary PPE and is well sequenced to prevent spillages during off-loading.

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

Standard of Practice 4.1: Implement management and operating systems designed to protect human health and the environment utilizing contingency planning and inspection and preventive maintenance procedures.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.1**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The site has 73 cyanide specific operational and engineering procedures (which include PPE requirements and pre-work inspections) for normal, abnormal and emergency conditions, supported by 45 TSF Contractor procedures for TSF activities and a mandatory Code of Practice covering TSF operation. Routine daily and monthly inspection reports, legal inspections, and checklists were sampled to check the effectiveness of systems and ensure that ensure proactive and reactive management. The plant maintenance and inspection schedule included preventative maintenance inspections on all cyanide critical equipment. Quarterly technical inspections of the TSF facilities are undertaken to ensure integrity and safety. A change management procedure covering health and safety and environment is in place and operational.

A formal planned maintenance system (PMS) is in place and a DMS 2000 computerised system was commissioned in July 2009. A Job card system has been implemented and forms the basis to determine maintenance frequencies of the PMS.

There is a probabilistic water balance in place, and no scenario has been identified where the need has been highlighted to shut down plant to prevent overtopping.

Standard of Practice 4.2: Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

X in full compliance with

The operation is in substantial compliance **with Standard of Practice 4.2**
not in compliance with
not subject to

Basis for this Finding/Deficiencies Identified:

Weekly leach profiles and bottle roll tests are conducted to determine recovery rates. Specific cyanide optimisation tests were completed on the different feed ore types and cyanide consumption vs. grind test have been done. The two ore sources were tested for metallurgical performance and reagent consumption. Cyanide levels as free CN are maintained at standard levels of 180 - 200 g/t as Sodium Cyanide, consumption varies based on ore type. Manual sampling and free cyanide titrations are done and used in conjunction with ratio control and a TAC 1000 cyanide analyser. Ratio control is on the thickener underflow, and is coupled with the TAC 1000 feed and tailings sample results which are used to control cyanide addition.

Standard of Practice 4.3: Implement a comprehensive water management program to protect against unintentional releases.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.3**
not in compliance with

Basis for this Finding/Deficiencies Identified:

A comprehensive, probabilistic water balance (PWB) for the TSF and for the plant was sighted. Information is available on rainfall, storm events, storage capacity and solution deposition. Rainfall data is collected by the plant staff. The TSF freeboard is specified and surveyed regularly. TSF inspections include visual monitoring of the levels of the return water dam and the TSF pool size (via weekly visual verification and monthly surveys). Plant surge ponds are used for process water storage as well as surge capacity for rainfall. Ponds are inspected shiftly and levels are controlled to ensure water supply to the plant. The PWB Model evaluates impact of power outages and the process surge water dam is maintained at a freeboard to accommodate a power outage. The system also allows for any overflow to drain via a cement channel to the return water dam, where sufficient capacity exists to accommodate any plant overflow during power outages.

Standard of Practice 4.4: Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

Samples are taken from the plant residue tank on a two weekly basis. A WAD 1000 analyser measures WAD cyanide on-line in the plant tailings tank. Samples are also taken 2 weekly from the plant surge ponds. Values were sighted from Nov 2007 to March 2010 with none exceeded 50 ppm WAD CN. WAD 1000 analyser on-line graphs of WAD cyanide levels showed downward trending of WAD cyanide levels, all below 50ppm WAD cyanide. No bird fatalities were recorded, indicating that the current cyanide levels appeared to be effective in preventing significant wild life mortalities.

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

X Not applicable

Basis for this Finding/Deficiencies Identified:

The mine is a no discharge mine with no discharges to surface water. The Geohydrological study undertaken for the Doornkop tailings facility and the shaft complex in Dec 2009 concludes that cyanide both total and WAD were analysed for and not detected, and there are thus no concerns with cyanide.

Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.6**

not in compliance with

Basis for this Finding/Deficiencies Identified

The TSF is designed with under drains draining to the return water dam. The pool is controlled as per the TSF Code of Practice requirements. A penstock is used to remove water from the pool and it drains into the return water pond. No specific beneficial uses of groundwater are identified, but seepage management practices are in place. Monitoring boreholes are in place and sampled six monthly. Samples are analysed for WAD cyanide and boreholes cover the down stream area of the TSF. No backfill is produced in the plant for use underground.

Practice 4.7: Provide spill prevention or containment measures for process tanks and pipelines.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.7**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The site's design includes bunding and containment for all cyanide storage, leach, CIP, elution and residue tanks and piping. All bunds are equipped with sumps and spillage pumps, returning spillage to the process. The leach tanks are rubber lined and the rubber inspected on an annual base as per the PMS system. The leach tanks base design consists of a ring beam, topped with green sheeting, overlain by a concrete slab. All plant pipelines are placed above a concrete surface with some sections crossing brick paving. All TSF pipelines are rubber lined as an additional spillage prevention measure. No pipelines are presenting a risk to surface water as there are no stream crossings and no proximity to fresh water dams or surfaces. Cyanide tanks and pipelines are manufactured from materials compatible with cyanide and high pH conditions.

Standard of Practice 4.8: Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.8**
not in compliance with

Basis for this Finding/Deficiencies Identified:

No plant cyanide facility additions or modifications have been made since Jun 2007. No quality control/quality assurance records for the cyanide equipment were available as the plant is approximately 23 years old. The plant was visually inspected by professional engineers who covered the whole plant and concluded that the plant was fit for purpose. Quarterly meetings are held where a Professional Engineer is present, reviewing TSF operations. Any recommendations are transferred to the monthly meetings for action to maintain the fit for purpose condition of the TSF.

Standard of Practice 4.9: Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.9**
not in compliance with

Basis for this Finding/Deficiencies Identified:

A sampling plan is in place to sample both surface and groundwater for cyanide. A procedure and the sample plan showing where samples should be taken is in place and monitoring, sample preservation, cyanide species, and chain of custody are identified. The procedures were developed externally by competent persons in an analytical laboratory that undertakes, not only the sample analysis, but also carries out the sampling. Boreholes are in place up and downstream of the TSF and sampled and analysed for WAD cyanide. Surface water is sampled up and down stream of the TSF and plant. Boreholes are sampled monthly, surface water is sampled weekly, surface streams sampled monthly, and wildlife is monitored daily for mortalities.

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

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 5.1**
not in compliance with

Basis for this Finding/Deficiencies Identified:

A decommissioning procedure is in place to ensure that planning adequately covers cyanide decommissioning and closure. The procedure includes the implementation sequence of cyanide decommissioning. The procedure also includes a review requirement when operations have changed, or when there is a change in closure planning, or, then, every 5 years.

Standard of Practice 5.2: Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 5.2**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The Harmony Gold Closure Cost Assessment for Doornkop for 2009 includes a line item for cyanide decontamination. Closure cost estimates are updated on an annual basis as per legal requirement. The Randfontein Estate limited - Doornkop section related Trust Fund has been established, in terms of legal requirements, to cover closure costs (including cyanide decommissioning) and the existence and currency of the Trust Fund was verified.

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

Standard of Practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce or control them.

in full compliance with

The operation is X in substantial compliance with Standard of Practice 6.1

not in compliance with

Basis for this Finding/Deficiencies Identified:

The site has 73 cyanide specific operational and engineering procedures (which include PPE requirements and pre-work inspections) for normal, abnormal and emergency conditions, supported by 45 TSF Contractor procedures for TSF activities and a mandatory Code of Practice covering TSF operation. Routine daily and monthly inspection reports, legal inspections, and checklists were sampled to check the effectiveness of systems and ensure that ensure proactive and reactive management. The plant maintenance and inspection schedule included preventative maintenance inspections on all cyanide critical equipment. Quarterly technical inspections of the TSF facilities are undertaken to ensure integrity and safety. A change management procedure covering health and safety and environment is in place and operational. Worker involvement in health and safety issues is through issue-based risk assessments, mini-risk assessments, through consultations in Health & Safety Committee meetings, representation by the full-time Health and Safety Steward, and discussions in Green Area meetings and Toolbox Talks.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 6.2**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The measuring of pH is done on the leach feed and residue and included in daily log sheets. It is controlled at 10.5, which is the norm for Witwatersrand ores. This is backed up by titrations on shift every 2 hours. Slaked lime is added to the thickener for manual pH control, using the pH measurements. A Hotspot survey completed: and no HCN was detected during the survey which included potential risk areas. Safety equipment such as safety showers, low pressure eye wash stations, and fire extinguishers are well located and adequately signposted. Signage and identification of cyanide lines and directional arrows are adequate. MSDSs, cyanide safety, and first aid information is available in English, the site working language. On-going inspections and checks are used to monitor and check facilities and emergency response equipment functioning. A site wide pipe colour coding system is in operation which includes cyanide pipe colour coding and directional flow signage.

A fixed Polytron HCN monitor is installed at the cyanide storage area, one handheld PAC III HCN monitor is available in the control room, one handheld PAC III HCN monitor is located in the smelt house and a further seven PAC 7000 portable HCN monitors have been acquired for general use. These are all calibrated and maintained according to procedures using manufacturer's recommendations.

Formal employee interviews were used to check awareness and sensitivity to health and safety measures and the response from employees and contractors alike, was found to be appropriate and acceptable. Accident and incident reporting and investigation procedures, based upon the site safety reporting requirements, were found to be in place and effective.

Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 6.3**

not in compliance with

Basis for this Finding/Deficiencies Identified:

Potable water, medical oxygen, ambubag, and antidote kits are available at emergency stations. Emergency communication is done via radio, backed up with a man down alarm (offloading), sounding in the control room. Emergency Tripac (antidote) kits are available at offloading, leach, smelt house, and CIP. All Tripac kits are stored in fridges as per the manufacturers guidelines. Tripac replacement is done via orders placed at the pharmacy at Sir Albert mine hospital, based on the triggers from the site PMS system. The Emergency team is trained in the emergency plan and the administering of oxygen. Antidotes are applied only by professional medical staff trained in cyanide first aid.

Cyanide patients are decontaminated and treated on site using water and oxygen. The control room contact the Paramedics at Sir Albert hospital in Randfontein, who send out the ambulance and emergency response car with an advanced paramedic to site. The ambulance will then transport the patient to Sir Albert hospital for expert medical treatment. A medical response team is on standby during any work on cyanide reagent strength equipment. Emergency first aid equipment, antidotes, medical oxygen and BA sets are accessible and this is supported by a formal cyanide first aid procedure. The Cyanide equipment is regularly checked and tested and mock drills are held on site.

7. EMERGENCY RESPONSE *Protect communities and the environment through the development of emergency response strategies and capabilities.*

Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.1**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The site has used a risk assessment to develop site-specific emergency scenarios and responses for its emergency response plan. The emergency preparedness plan combines existing procedural responses and emergency provisions to deal with the various scenarios. The Plan describes specific response actions, as appropriate for the anticipated emergency situations, such as clearing site personnel and potentially affected communities from the area of exposure, use of cyanide antidotes and first aid measures for cyanide exposure, control of releases at their source, and containment, assessment, mitigation and future prevention of releases.

Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.2**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The workforce is involved with the ERP via induction training, feedback from emergency drills and through safety meetings. The community is not directly involved in the Plan but is informed on its contents during dialogue sessions. Hospital and Netcare 911 (the ambulance service providers) are involved with the emergency drills to test and confirm arrangements.

Standard of Practice 7.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

X in full compliance with

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

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness Plan details clear duties, roles and responsibilities for the various emergency scenarios. Emergency equipment lists were checked and site inspections confirmed availability and readiness. The Plan includes contact references (telephone, cell phone, etc) of internal and external resources for the various scenarios, particularly with detail where external resources and skills might be needed. Periodic drills involving internal and external stakeholders ensure that roles and responsibilities are understood and clearly implemented.

Standard of Practice 7.4: Develop procedures for internal and external emergency notification and reporting.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.4**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness Plan includes details for appropriate emergency notification and reporting and the call-out procedure and contact information lists which are updated regularly. Media communication is dealt with in the Plan.

Standard of Practice 7.5: Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.5**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The Emergency Preparedness Plan cross-references to detailed and specialised procedures which cover clean-up and remediation relating to releases and spills, as appropriate to the site-specific identified scenarios. Use of neutralization processes and materials is clearly covered, as is disposal of contaminated materials and the use of treatment chemicals such as ferrous sulphate in surface water is prohibited.

Standard of Practice 7.6: Periodically evaluate response procedures and capabilities and revise them as needed.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 7.6**
not in compliance with

Basis for this Finding/Deficiencies Identified:

The Plan is required to be reviewed annually following incidents and emergency drills or when new information regarding cyanide becomes available. The report of a full cycle drill to hospital which included a cyanide spill and cyanide related injury was sighted. Evidence was sighted of learning points emerging from the various cyanide man-down drills.

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

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 8.1**
not in compliance with

Basis for this Finding/Deficiencies Identified:

All staff entering the plant, including security and contractors, receive cyanide basic training which includes cyanide first aid. ECMP contractor TSF personnel receives induction training by the plant. Cyanide first aid training as well as awareness training is completed. Refresher training is given yearly on return from annual leave. Randomly selected employees were checked in interviews on their understanding of cyanide hazards, first aid and emergency response and this was verified through checking of their training records.

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 **X in substantial compliance with Standard of Practice 8.2**

not in compliance with

Basis for this Finding/Deficiencies Identified:

The whole training system within the Harmony Group was changed from a historically less formal training structure to a formally structured well planned system, referencing to national unit standards relating to Metallurgy. The new training system was implemented and is in the process of training the staff on the revised standards and procedures, which are ICMI code compliant. Implementation is in the early stages and training on critical cyanide related tasks need to be verified for full compliance. A corrective action plan has been developed to achieve the above within 8 months. All Trainers are trained and registered as Assessors and the Harmony Metallurgy training establishment is formally ISO 9001 accredited. A Plant specific Planned Task Observation (PTO) system is in place. Records are retained for 40 years on plant, after which the records are sent to a central archive.

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 **X in substantial compliance with Standard of Practice 8.3**

not in compliance with

Basis for this Finding/Deficiencies Identified:

All cyanide section employees are trained in the cyanide emergency procedures, including cyanide release scenarios. This is done during the induction and refresher courses. All cyanide section employees, cyanide specialists and cyanide maintenance staff are trained in advanced cyanide rescue and first aid. Emergency responders are trained in cyanide emergencies during the induction / refresher sessions, in the emergency procedures and the plan is also trained practically during the emergency drills. The training officer is present at the drills and evaluates requirements from the drill if necessary in a needs analyses. Regular emergency drills are held and Hospital and Netcare 911(the ambulance service providers) are also involved with the emergency drills to test and confirm arrangements.

The whole training system within the Harmony Group was changed from a historically less formal training structure to a formally structured well planned system, referencing to national unit standards relating to Metallurgy. The new training system was implemented and is in the process of training the staff on the revised standards and procedures, which are ICMI code compliant. Implementation is in the early stages and training on critical cyanide related tasks need to be verified for full compliance. A corrective action plan has been developed to achieve the above within 8 months. Periodic mock drills are undertaken and training personnel attend these drills and formally evaluate response and performance.

9. DIALOGUE: Engage in public consultation and disclosure.

Standard of Practice 9.1: Provide stakeholders the opportunity to communicate issues of concern.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 9.1**

not in compliance with

Basis for this Finding/Deficiencies Identified:

Dialogue meetings are two-way dialogue sessions involving both dissemination of information and the answering of questions on cyanide. There are communities in close proximity to the plant and the TSF and meetings with them are held monthly. Site contact details are made available at these meetings and presentations were also given to children. The local Taxi Association was involved and made aware of cyanide tankers and that an emergency procedure is in place. A Meeting between local councils, Department of Minerals and Energy and the Mine was held. Stakeholder communities identified are Slovoville, Tsepisong, and Swaneville. Minutes of meetings between Doornkop Gold Plant Management, ECMP and the Community leaders of these

communities were sighted. A School visit was arranged to discuss the dangers associated with slimes dams and return water dams. The presentation used for community and schools where knowledge of cyanide was sighted.

Standard of Practice 9.2: Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 9.2**
not in compliance with

Basis for this Finding/Deficiencies Identified:

Dialogue meetings are two-way dialogue sessions involving both dissemination of information and the answering of questions on cyanide. There are communities in close proximity to the plant and the TSF and meetings with them are held monthly. Site contact details are made available at these meetings and presentations were also given to children. The local Taxi Association was involved and made aware of cyanide tankers and that an emergency procedure is in place. A Meeting between local councils, Department of Minerals and Energy and the Mine was held. Stakeholder communities identified are Slovoville, Tsepisong, and Swaneville. Minutes of meetings between Doornkop Gold Plant Management, ECMP and the Community leaders of these communities were sighted. A School visit was arranged to discuss the dangers associated with slimes dams and return water dams. The presentation used for community and schools where knowledge of cyanide was sighted.

Standard of Practice 9.3: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

X in full compliance with

The operation is in substantial compliance with **Standard of Practice 9.3**
not in compliance with

Basis for this Finding/Deficiencies Identified:

A Community meeting was used to present cyanide information to the illiterate section of the community. A PowerPoint cyanide awareness presentation was given to schools and community. A printed leaflet was distributed to community describing facts about cyanide and the ICMI.

Reporting on incidents has not been done because there have been no incidents. Injuries must be reported to the Department of Minerals Resources who do not necessarily make the information public. Similarly, spills and releases must be reported to the Department

of Water Affairs and Environment. Transport related incidents and reported by Sasol Infrachem, the transporter, through their own reporting mechanisms.

Annual reports do not include details on cyanide incidents. However, in a letter from the executive: environmental management of the Harmony Gold Mining Company to the ICMI Lead Auditor it was stated that the Harmony Group communication on cyanide-related significant incidents will be included in its public website, as well as the annual report, should they occur.

