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**INTERNATIONAL CYANIDE MANAGEMENT CODE AUDIT
MARIGOLD MINE, NEVADA
SUMMARY AUDIT REPORT**

Submitted to:



*International Cyanide Management Institute
888 16th Street, NW
Washington DC, 20006*

*Marigold Mining Company
5190 Neil Road Suite 310
Reno, Nevada 89502*

Submitted by:

*Golder Associates Inc.
44 Union Boulevard, Suite 300
Lakewood, Colorado 80228*

January 5, 2010

093-81761

SUMMARY AUDIT REPORT
Marigold Mine ICMC Audit

Name of Project: Marigold Mine

Project Owner / Operator: Marigold Mine is operated by Goldcorp Inc., a Joint Venture between Marigold Mining Company (66.7%) and Barrick Gold Corporation (33.3%).

Name of Responsible Manager: Duane Peck, General Manager

Address and Contact Information:

Marigold Mine
PO Box 160
Valmy, Nevada 89438

Phone – 775 635-2317
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Email – duane.peck@goldcorp.com

Audit Dates: July 13-16, 2009

Location and Description of Process

Marigold Mining Company operates the Marigold Mine (Marigold) located approximately three miles south of Valmy in the southeastern portion of Humboldt County, Nevada. Marigold's land position encompasses approximately 19,000 acres of private and public land. The mine has been in commercial operation since 1988.

The original Water Pollution Control Permit (WPCP) application for the Marigold Mine project was submitted to and approved by Nevada Department of Environmental Protection (NDEP) in 1988. Marigold has been operating since that time under the terms of NDEP-Bureau of Mining Regulation & Reclamation Permit #NEV88040. The permit has been modified and renewed several times the most recent approval was September 15, 2009. Marigold's permitted heap leach facility currently consists of approximately 429 acres of existing leach pad and ponds plus 147.5 acres of approved, but not yet constructed leach pad for a total of 576 acres for the entire heap leach facility. Marigold was initially fully certified by the International Cyanide Management Institute (ICMI) on December 29, 2006. The cyanide related facilities that have changed since the initial certification include addition of active leach cells, cessation of leaching on some cells and addition of a cyanide offload and storage area. Marigold is in the process of modifying the lined solution conveyance system from the heap to Pregnant Pond #1 and #2. The system modification was designed and engineered by a third party engineer.

The Marigold Mine consists of multiple open pits, waste rock stockpiles, a gold cyanide heap leach facility including process solution ponds (three pregnant solution ponds and two barren solution ponds), a single lined storm water pond, a leach recirculation system, carbon column system, three liquid cyanide storage areas, a closed and reclaimed tailings impoundment, recovery facility in the mill building (the mill is not operational), office buildings, water supply wells, access and haul roads, and storm water control structures.

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The Marigold operation employs approximately 240 people and operates year round, 24 hours per day. The heap leach pads are constructed on engineered foundations with HDPE liners for containment of solution. Dilute cyanide solutions are applied to the run-of-mine heaps and collected on the liner and within solution collection pipes for conveyance to pregnant solution ponds. The process ponds and carbon column system are enclosed with high fencing to prevent wildlife and livestock access and the pond surfaces are netted or covered with bird balls to prevent bird access. Pregnant solution is conveyed to carbon columns for gold adsorption. Loaded carbon is removed from the columns for transport to the process building. The carbon is then stripped using a hot pressure alkaline solution. Metals are recovered from the hot alkaline solution using electrowinning. After the metal-bearing sludge is collected in the electrowinning process it is baked in a retort to remove mercury. The dried material is placed in an induction furnace with fluxes and the final product, doré, is produced. All cyanide storage and handling is completed within concrete or synthetic lined containments by trained operators. The Marigold Mine has routine shift inspections to evaluate the performance of cyanide facilities to ensure containment and compliance. Environmental and wildlife monitoring associated with the cyanide facilities is conducted and reported to Nevada agencies.

Cyanide is delivered to the site in specially engineered tanker trucks as liquid Sodium Cyanide. The liquid cyanide is offloaded into steel storage tanks using compressed air at low pressures. The high strength cyanide solution is conveyed from the storage tanks in pipelines for delivery to the pads as well as mixing and dilution in the process solution ponds and solution delivery pipelines.

in full compliance with
The operation is in substantial compliance with **All Code Principles**
 not in compliance with

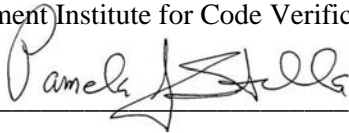

Audit Company: **Golder Associates Inc.**
Audit Team Leader: **Pamela J. Stella, CEA**
E-mail: Pamela_Stella@golder.com

Names and Signatures of other Auditors:

Ivon Aguinaga

Ivon Aguinaga  January 5, 2010
Name of Auditor Signature of Auditor Date

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.


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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.

Myra Y. Atencio

Notary Public

State of Colorado

My commission expires: 11/01/2010

Marlin Mine

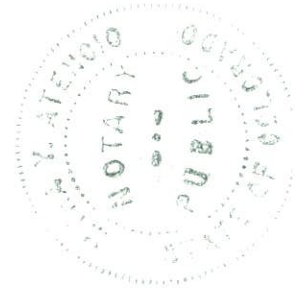
Name of Facility

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Signature Lead Auditor

01/05/2010

Date



Marigold Mine
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Pamela J. Stiles
Signature Lead Auditor

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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 Audit Finding: Marigold has committed to only purchase cyanide from a producer which is compliant with the International Cyanide Management Code (ICMC). Marigold has Sodium Cyanide supply contracts with E.I. DuPont De Nemours & Co., Inc. (DuPont). DuPont is signatory to the ICMC and has provided third-party independent Audit Summary Reports confirming full compliance with the ICMC's Cyanide Production Principles and Standards of Practice. DuPont was re-certified in full compliance with the Code on December 1, 2009.

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 Audit Finding: Marigold has a Sodium Cyanide supply contract with DuPont, which specifies that the operation takes ownership of the cyanide at the time of delivery into the cyanide storage tank. The contract between Marigold and DuPont specifically identifies the ICMC certification requirements as a provision. DuPont by contract are solely responsible for the production and transport of Sodium Cyanide to the delivery point at Marigold. DuPont's recertification audit included the Memphis Plant, the LSI Packaging Terminal and the DuPont Carlin Terminal. DuPont subcontracts Sentinel Transportation LLC (Sentinel) to transport the liquid cyanide from the Carlin terminal to the mine. Sentinel is signatory to the ICMC. Sentinel has been certified by a third party independent auditor as compliant with the ICMC with clear lines of responsibility for safety, security, release prevention, training and emergency response. Sentinel submitted its recertification audit report to the ICMI on November 3, 2009 prior to the November 20, 2009 deadline for having the audit conducted and therefore remains fully certified while the report is processed by the ICMI.

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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 Audit Finding: DuPont by contract is solely responsible for the production and transport of cyanide to the delivery point at Marigold. DuPont is a signatory producer to the ICMC and subcontracts Sentinel Transportation LLC (Sentinel) for transportation from the Carlin Terminal to Marigold. Sentinel has been certified by a third party independent auditor as compliant with the ICMC with appropriate emergency response plans and capabilities and has adequate cyanide management control measures. DuPont has certified the entire transportation supply chain as compliant with ICMC. The DuPont supply chain from the manufacturing facility in Memphis, Tennessee as it related to interim storage and due diligence of the rail transport has been completed and documented in Audit Report DuPont Management of Sodium Cyanide Transportation via Rail Memphis, TN Plant to Carlin, NV Packaging Terminal via Union Pacific Railroad and Canadian National Railway dated December, 2006 and updated in May 2007. Sentinel submitted its recertification audit report to the ICMI on November 3, 2009 prior to the November 20, 2009 deadline for having the audit conducted and therefore remains fully certified while the report is processed by the ICMI.

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 Audit Finding: The design and construction of the three cyanide offload and storage facilities have been completed appropriately as documented in construction as-built reports prepared and stamped by Nevada Professional Engineers. The cyanide offload and storage facility quality control and assurance procedures and documentation include an as-built report noting foundation compaction and concrete reinforcement and verification of piping and tankage materials. In addition, these facilities were reviewed and approved for continued use by a Nevada registered Professional Engineer. The cyanide offloading and storage tanks are located outside and provide appropriate

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ventilation. Two of the cyanide offloading and storage areas are within concrete containment to contain releases and precipitation that may contact cyanide. The third cyanide offloading and storage tank is constructed as a portion of one of the heap leach cells and is built on top of an eighteen inch gravel protective layer (1.5" minus crushed rock) over a 60 mil HDPE geomembrane. Below the membrane is a geosynthetic clay liner, a 12-inch clay liner and compacted rock fill. As also covered under Standard of Practice 4.7, the containment areas are constructed for spill prevention and the containments sized to contain volumes greater than the single largest tank.

The offloading and storage area locations are well situated with respect to surface and groundwater resources. No perennial or intermittent streams are within 500 yards. No groundwater supply wells are nearby. Two of the cyanide offload and storage areas are located well away from offices and do not present any undue risk for human exposure. The third area is located behind the mill and refinery building and away from general traffic at the operation and has appropriate warning signage.

Fenced security is provided around the mine site with additional high fencing around the carbon column system and process ponds. The delivery of liquid cyanide is performed in specially engineered tanker trucks.

The liquid cyanide storage tanks each have a high-level alarm and level indicator. Secondary containments for cyanide storage and mixing tanks are constructed of materials that provide a competent barrier to leakage. Cyanide is stored separately from incompatible materials such as acids, strong oxidizers and explosives and apart from foods, animal feeds and tobacco products with appropriate barriers that will prevent mixing.

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 Audit Finding: Marigold has developed and implemented written Standard Operating Procedures (SOPs) to prevent exposure and releases of cyanide during unloading, storage, and application. The SOPs consist of "Cyanide Safety", "Escorting and Monitoring the Offloading of Cyanide Deliveries", "Monthly Inspection (Cyanide)", "Process Facilities Preventive Maintenance", "Process Maintenance Decontamination Procedures," "Confined Space Entry" and "Heap Leach Operators". The offload procedure includes the operation of the valves and couplings and addresses routine and emergency valve operation, appropriate PPE and a full time observer for the hook up, offload and unhook activities. Marigold uses inspection checklists and follows a preventative maintenance program. As also covered under Standard of Practice 4.1, Marigold has implemented an inspection program that includes daily pre-shift walk around and formal monthly inspections that are entered into corrective action inspection forms and completion of tasks documented. Marigold uses only liquid cyanide and there are no empty cyanide containers that require disposal.

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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 Audit Finding: Marigold has developed and implemented operator task-specific SOPs that address protection of human health and the environment for the operation of cyanide heap leach processing. These SOPs were found to have adequate contingency planning, routine inspections, and a preventive maintenance program. SOPs address all the cyanide management tasks such as offloading, handling and storage of cyanide; operation of the carbon-in-column systems; and cyanide circulation pumps. Contingency planning documents have been developed and implemented to support the process pond management and solution inventory to address power failure, as well as extreme precipitation management. Marigold has a backup generator to ensure that essential process equipment and systems operate. Marigold has inspections that include regular testing of the backup power generator. Marigold uses inspection forms for identifying, completing and documenting all preventive maintenance activities.

Marigold's permit to operate was renewed in September 2009. The permit requirements include the assumptions and parameters on which the facility design was based and all applicable Nevada State regulatory requirements. Permit requirements include process solution containment of the 100-year, 24-hour storm, plus a 24-hour draindown with a minimum 2 feet freeboard.

Marigold has weekly safety meetings to identify when site operating practices have or will be changed from those on which the initial design and operating practices were predicated. The meetings discuss procedures and continual improvements. All changes in process or other procedures must be approved by the Environmental Manager before implementation.

Marigold's operating permit includes plans for contingencies for cyanide management in situations where there is an upset in a facility's water balance, when inspections or monitoring identifies a problem, and when a temporary closure or cessation of operations may be necessary.

Marigold inspects cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design parameters. Inspections include a visual inspection of all tanks holding liquid Sodium Cyanide for integrity and signs of corrosion, cyanide containments (presence of fluids and available capacity), leak detection at the ponds, solution collection systems at leach pads, pipelines, pumps and valves for deterioration and leakage, process ponds and heap leach lined areas, and lined ditches. The inspections are documented, including the date of the inspection, the name of the inspector, any observed deficiencies, and the nature and date of corrective actions. Marigold retains the inspection records.

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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 Audit Finding: Marigold is a heap leach operation and the mill tailings impoundment is now closed.

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 Audit Finding: Marigold has developed a comprehensive, probabilistic water balance that meets the requirements of a comprehensive water management program. Process facility inspection procedures and data collection programs have been implemented to update the water balance model. Marigold has a weather station and measures and records precipitation data for incorporation into the model and operational planning. Daily shift inspections include available freeboard level monitoring that are incorporated into the water balance model and operational planning to prevent potential overtopping. The Marigold ponds and other cyanide containments are designed and operated with adequate freeboard above maximum storage levels and routine operating levels. Sensitivity analysis can be completed to evaluate differing management strategies for solution inventory reduction including elimination of make-up water addition, moving application to inactive portions, and/or increase use of emitters/sprays.

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 Audit Finding: Marigold has five process ponds, with only four that contain cyanide solutions (two barren ponds and Preg Pond #2 and Preg Pond #3). The fifth process pond (Preg Pond #1) is maintained and operated as a storm water pond and does not contain cyanide or

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process solution. The open water in the barren ponds and Preg Pond #2 and Preg Pond #3 is typically above 50 mg/L WAD cyanide. Marigold has implemented measures to restrict access by wildlife and livestock to all open waters where WAD cyanide exceeds 50 mg/L. Marigold's facilities include a perimeter fence around the entire property and high wildlife fencing around the barren and pregnant ponds #2 and #3 to further prevent wildlife and livestock access. Marigold has netting covering the two barren solution ponds, and one of the three pregnant solution ponds, and bird balls in two of the pregnant ponds. The third pregnant pond (Preg Pond #1) is not netted, does not have bird balls and serves as a storm water pond. Preg Pond #1 does not contain cyanide solution or process solution. Marigold has developed and implemented programs to prevent and control ponding of solution on the surface of the heaps during application and to prevent overspraying of the lined areas. Marigold has filled conveyance ditches around the pad perimeters with gravel to minimize exposure of solution. In conveyance ditches where temporary ponding of solution occurs due to the leaching configuration, nets or other actions are implemented to prevent wildlife access. Wildlife mortality inspections are conducted as part of the daily shift inspection. Marigold completes Wildlife quarterly reports to Nevada Department of Wildlife (NDOW) Habitat Bureau. No wildlife mortalities associated with permitted pond solutions or cyanide structures have been reported.

Marigold applies leach solutions in a manner designed to avoid significant ponding on the heap surface and limit overspray of solution off the heap liner.

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 Audit Finding: Marigold is designed and operated for zero-discharge of process fluids. Operation performance history, design criteria and the project water balance indicate that the facility operation is consistent with the zero-discharge requirements. Monitoring information indicates no impact to groundwater or surface water quality has occurred from the heap leach operations. Spill prevention and emergency response plans have been developed to comply with the zero-discharge operating requirements.

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

- in full compliance with**
- The operation is** in substantial compliance with **Standard of Practice 4.6**
- not in compliance with

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Basis for Audit Finding: The regional groundwater beneficial use has been classified as a drinking water source. Accordingly, the project construction and operation include a number of seepage control technologies such as composite liner systems below the heap leach pads consisting of compacted low-permeability soil liner overlain by geomembrane liners, double geomembrane liners with leak detection and leak collection systems underneath the process ponds, and concrete containments in process areas to protect the beneficial water use. The groundwater quality monitoring data indicate that the beneficial groundwater uses have been protected. Nevada Department of Environmental Protection total cyanide concentration limitation for groundwater is 0.2 mg/l

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 Audit Finding: Marigold has spill prevention and containment measures provided for all cyanide offloading, storage, handling and process solution tanks. Containment includes secondary curbed concrete containments for two of the three cyanide storage areas and for all the process areas. The third cyanide offloading and storage tank is constructed as a portion of one of the heap leach cells and is built on top of an eighteen inch gravel protective layer (1.5" minus crushed rock) over a 60 mil HDPE geomembrane. Below the membrane is a geosynthetic clay liner, a 12-inch clay liner and compacted rock fill. Other secondary containments include pipe-in-pipe and geomembrane-lined channels. The secondary containments in the cyanide offload, storage areas and all process areas have been designed to contain at least 110 % of the largest tank leakage and a design storm event. Secondary containment in the process area has SOPs for management of tank leakage that involves solution pumping, and protocols for solution transfer. SOPs have been developed to address management of spill response and clean-up within the containments. Review of the operation indicates that all tanks, piping and containments are constructed of materials appropriate for handling high pH cyanide solutions.

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

in full compliance with

The operation is in substantial compliance with **Standard of Practice 4.8**

not in compliance with

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Basis for Audit Finding: Marigold has implemented quality control/quality assurance (QA/QC) programs during construction of all new cyanide facilities and modifications to existing facilities, including cyanide offloading, storage, handling facilities and heap leach pads. The quality control and quality assurance programs addressed the suitability of materials and adequacy of soil compaction for earthworks such as tank foundations and installation of synthetic membrane liners. The project construction has been verified by qualified engineering companies and includes detailed QA/QC data collection and documentation. The QA/QC documents indicate that the construction was completed according to engineering standards and specifications. Marigold retains all QA/QC information.

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 Audit Finding: Marigold has environmental monitoring programs developed to evaluate the performance of all cyanide management systems on wildlife, surface and ground water quality. The environmental programs have been reviewed and approved by qualified professionals and implemented by qualified personnel and include all appropriate sampling and analysis documentation. The programs specify how and where samples should be taken, sample preservation techniques, chain of custody procedures and cyanide species to be determined. Sampling conditions and procedures are documented in writing. Marigold does inspect for and record wildlife and livestock mortalities. Marigold's monitoring program has been designed to adequately characterize the conditions for a variety of media and to identify changes in a timely fashion.

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.*

in full compliance with

The operation is in substantial compliance with **Standard of Practice 5.1**

not in compliance with

Basis for Audit Finding: Marigold has developed a written closure plan and cost estimate to address Nevada State and federal mining reclamation requirements that include decommissioning of all cyanide equipment, pipelines and facilities. Marigold has developed an implementation schedule that considers the treatment and evaporation of all process solution, detoxification and rinsing of equipment, and removal and decommissioning of ponds and other containments. Marigold updates

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their closure plan annually, and is also required to update estimated reclamation costs at least every year with the Bureau of Land Management and at least every three years with their Nevada reclamation permit and with every project change. The closure and reclamation plan includes an implementation schedule and performance monitoring.

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 Audit Finding: Marigold has developed cost estimates with sufficient financial resources for the closure of the cyanide-related facilities and activities. The cost estimate included costs for a third-party contractor to complete the work and management costs for the process to be overseen by the Bureau of Land Management (BLM). The cost estimates are updated at least every five years. Marigold has established an approved financial surety to cover the full cost of cyanide facility decommissioning. The U.S. Department of Interior, Bureau of Land Management holds a financial surety from Marigold for approximately \$50 million.

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 Audit Finding: Auditors verified during the audit whether any additions were made to the cyanide facilities since the time of the initial audit. Marigold has constructed a cyanide addition system for the heap leach facility and has updated and revised their existing SOPs required for this new system. Marigold has identified potential cyanide exposure scenarios and developed and implemented procedures and plans to eliminate, reduce and control exposure for the new cyanide addition area. All SOPs revised since the time of the initial audits were reviewed to verify compliance. Marigold's individual task specific SOPs provide details for safe operation of cyanide equipment, personal protective equipment requirements and inspection requirements. Marigold has weekly health and safety meetings to provide information and training to employees as well as solicit input from employees on worker safety issues. Any proposed changes in SOPs are discussed with the area supervisors prior to implementation. All changes are communicated to the workforce and training requirements updated.

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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 Audit Finding: Marigold has developed SOPs and plans for the cyanide facilities to prevent the generation of hydrogen cyanide (HCN) gas. Plans and SOPs have been revised to incorporate any changes that have occurred to their cyanide facilities or to operating procedures since the time of the initial audit, as well as lessons learned from mock drills as necessary. Marigold has defined process equipment operational plans for control of cyanide, caustic and pH. Solution pH is continuously monitored and maintained to prevent the formation of HCN gas. The storage tank, mixing area and ponds are located outdoors and are open to ambient air. Marigold conducted a HCN survey at the new cyanide addition area and documented that that area does not present a potential for worker exposure to hazardous cyanide concentration. Marigold has mobile HCN detectors for use in confined space entry and for routine inspections of cyanide facilities. Marigold has established requirements for personal protective equipment at all relevant process areas and for all activities. Cyanide monitoring equipment is maintained, calibrated and inspected as recommended by the manufacturer. Marigold has installed a safety shower with eye wash station and a compatible fire extinguisher at the new cyanide addition area. Identification and warning signs have been placed where cyanide is used. The signs state cyanide is in use, no smoking, eating or drinking and to wear appropriate PPE. In addition, all pipes containing cyanide solution are labeled as containing cyanide with the flow direction. Marigold inspects and maintains on a regular basis safety showers, eye wash stations and compatible fire extinguishers located at relevant cyanide usage areas. Marigold provides the cyanide safety information (Material Safety Data Sheets and first aid procedures) at all key process locations. Marigold has implemented an accident investigation process to report and investigate all cyanide related 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 Audit Finding: Marigold has revised their existing written emergency response procedures for cyanide exposure, which contain sections on medical emergencies and environmental releases. These sections include actions and guidelines for cyanide poisoning and exposure, cyanide spill/release response, decontamination and remediation. Marigold has safety equipment including safety showers with eye wash stations, first aid equipment, an emergency response vehicle, and first aid training. Marigold emergency response equipment, including the cyanide antidote kit, is inspected regularly. Cyanide antidote kits are stored according to the manufacturer's instructions.

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Marigold has a first responder team. The team is trained to provide first aid for cyanide exposure including oxygen and amyl nitrite. Every crew has at least one first responder with cyanide training on every shift. In the event of a worker exposure, Marigold will provide on-site first aid and cyanide antidote kit with intravenous cyanide antidote for transport with the patient to the local hospital. Marigold has made formal arrangements with the local hospital to treat cyanide exposed workers. Marigold has conducted cyanide exposure drills and tests the relevant emergency procedures at least once per year.

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 Audit Finding: Marigold has revised and updated (since the time of the initial audit) their SOPs and plans dealing with cyanide related emergencies. The SOPs and plans address potential cyanide releases including containment plans and analysis of potential scenarios. Marigold plans contain procedures for potential scenarios such as cyanide intoxication, heap leach pad slope failure, cyanide transportation/delivery accidents, cyanide spill control and clean-up, and decontamination and emergency evacuation. The Marigold emergency response plan (ERP) has been evaluated annually and updated as appropriate based on this review.

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 Audit Finding: The emergency response plans have been designed to be implemented entirely by trained site personnel. The Marigold emergency response teams are trained to respond to all potential cyanide incidents at the site. Marigold is part of the Local Emergency Planning Committee (LEPC) and is committed to keep the LEPC informed of their emergency response planning activities. Marigold involves the Valmy Fire Department, the Lander County Sheriff's Department, the Battle Mountain General Hospital and others in their emergency response planning and mock drills. Marigold's workforce also has the ability to participate in the emergency response planning process through their weekly safety meeting and mock drills. Marigold revises their emergency response plans as needed to address workplace and personnel changes.

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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 Audit Finding: Marigold has committed, in the ERP and SOPs, the necessary emergency response equipment and first aid to manage all cyanide incidents at the operation and to coordinate transportation to the nearest medical facilities. Marigold has certified first responders trained in cyanide-related emergency response procedures, cyanide spill response, slope evacuation, HAZMAT response, fire fighting, emergency response equipment use and others.

The ERP includes the Marigold Mine Emergency Organization Chart that defines the primary and alternative response coordinators for site emergencies. The ERP details the responsibilities of the Incident Commander and the Safety and Environmental Departments. The ERP contains a list of on-site emergency responders and off-site emergency responders (e.g., ambulance/fire department/police/sheriff, hospital Battle Mountain, Fire Department Winnemucca, Fire Department Battle Mountain, CHEMTREC, DuPont Carlin Terminal and Cyanide Response Team, Sentinel Transportation Terminal, regulatory agencies and others). The ERP describes the anticipated roles of off-site responders. The ERP includes radio channel, office and 24-hour cell phone telephone numbers for the Emergency Response Team and Commanders. Marigold has a list of emergency response equipment including equipment location. All emergency equipment and supplies are inspected monthly by the Safety Department.

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 Audit Finding: The emergency response plans detail the procedures (including current contact telephone numbers) for internal and external emergency notification and reporting.

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

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Basis for Audit Finding: Marigold has prepared cyanide response and remediation plans that address appropriate use and situations for deploying a cyanide treatment chemical (sodium hypochlorite). The “Marigold Mine –Sodium Cyanide Spills” document describes how the treatment chemical is to be prepared to the appropriate concentration as well as what final cyanide concentration will be allowed in residual soil as evidence that the release has been completely cleaned up. Marigold has developed plans to sample and monitor soils and groundwater in the event of a cyanide spill.

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 2.2**
 not in compliance with

Basis for Audit Finding: Emergency response plans are revised annually or as needed to address workplace or personnel changes. Additionally, Marigold conducts mock cyanide emergency response drill regularly. Mock drills are conducted to test response procedures and incorporate lessons learned into Marigold response planning.

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 Audit Finding: Marigold provides initial and annual refresher training to all employees (including contractors) on the hazards of cyanide. In addition to the general training, all employees working in process areas where cyanide is used are required to undergo task-specific training. Cyanide related health and safety topics are discussed during safety meetings at process areas. Marigold retains all cyanide training records for all employees. The cyanide related SOPs include performance assessment tests that are also retained in the permanent records.

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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 Audit Finding: All personnel in job positions that involve the use of cyanide and cyanide management receive training on how to perform their assigned tasks with minimum risk to worker health and safety. Marigold has prepared and implemented SOPs that detail health and safety procedures for all aspects of cyanide offloading, handling, mixing and storage. Marigold requires and provides MSHA and HAZCOM training, and specific departments receive additional specific training for their work area. Specific task training includes procedures for “Escorting and Monitoring the Offloading of Cyanide Deliveries”, “Heap Leach Operator”, “Generator Power during a Power Outage”, “High Pregnant or Barren Pond Levels”, “Cyanide Incident First Responder”, “Monthly Inspection (Cyanide)”, “Process Facilities Preventive Maintenance”, “Gas Alert Extreme HCN (Hydrogen Cyanide Gas) Monitor”, “Cyanide Safety” and others. Operators are also observed by their supervisor to evaluate effectiveness of cyanide training on a regular basis.

Marigold’s training program identifies the specific cyanide management elements that each employee must be trained in to perform that specific job properly. Marigold trainers are MSHA and HAZCOM certified and are First Responders. The Safety and Process Managers are qualified as “Train the Trainer” from either Cyanco and/or DuPont, ICMC certified cyanide producers. All new Marigold employees are required to have the ‘Cyanide Safety’ class and pass a written test before working with cyanide. All Marigold employees (including contractors) receive annual “Cyanide Safety” training. Marigold employees working in specific cyanide management tasks receive annual refreshers for those tasks. Marigold employee training records are retained throughout an individual's employment documenting the training they receive. The records include the names of the employee and the trainer, the date of training; the topics covered, and test results demonstrating an understanding of the training materials.

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 Audit Finding: Marigold has provided training in response to cyanide releases for all production and maintenance personnel and developed a first responder team. Marigold has developed SOPs for cyanide-related tasks. The ERP and SOPs define the response required by operators if a person is exposed to cyanide or if there is an environmental release. Training includes cyanide offloading procedures, cyanide safety, confined space, cyanide contamination routes, first aid for

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cyanide poisoning, cyanide spill response, decontamination procedures, fire extinguisher use, preventive maintenance, cyanide related PPE, use of the hand-held HCN meters, cyanide antidote kit management, and emergency communication procedures. Marigold has an Emergency Response Team comprised of full-time employees trained in first aid and use of resuscitation equipment. At least one qualified First Responder is available on every shift at the mine. Emergency and First Responders have monthly training to maintain skills or resolve identified training deficiencies. All responders are certified and/or recertified in accordance with Nevada state and Federal requirements.

Marigold is committed to conduct mock cyanide emergency response drills on a regular basis. Mock drills include both human exposure and environmental releases. Drills are analyzed and improvements made to training procedures and emergency response plans as required.

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 Audit Finding: Marigold provides many avenues of opportunity for stakeholders to communicate issues of concern regarding cyanide use and management at the mine. One of these opportunities is with the public through LEPC meetings. LEPC meetings are regularly attended by the Lander County Commission, Lander County Sheriff's Office, Lander County Public Health, Battle Mountain Ambulance Service, Battle Mountain General Hospital, the BLM, Marigold, Barrick, Newmont and other stakeholders. In addition, Marigold provides site tours for stakeholders by request. Site tours include cyanide facilities. Goldcorp and Barrick also have websites with a "Contact_Info" tab that allows an individual to contact the company via telephone (http://www.goldcorp.com/operations/marigold/contact_info/). Opportunities for public input were also available during the renewal process of the WPCP No. NEV88040. The WPCP No. NEV88040 renewal application included a description of the use and management of cyanide at the site, and was available for public inspection and comment.

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 Audit Finding: Marigold regularly interacts with stakeholders and provides them with information regarding cyanide management practices and procedures during mock drills and at LEPC meetings. The July 2009 LEPC meeting included a Marigold presentation on the use of

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cyanide and cyanide management programs including sodium cyanide for gold ore processing, cyanide deliveries, cyanide facilities, Code certification, cyanide emergency mock drills and others.

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 Audit Finding: Marigold provides quarterly and annual reports to the NDEP Bureau of Mining Regulation and Reclamation that includes a summary of cyanide spills and releases, and environmental performance monitoring. These reports are available to the public by request. Marigold is required to complete MSHA reports that would include any cyanide related worker exposure resulting in injury or death. Marigold will report to the corresponding regulatory agencies within specified regulatory time frames: a) any cyanide release directly into surface or groundwater, b) any cyanide release outside of the fluid management system; c) any cyanide release in a quantity equal to or greater than that covered by 40.C.F.R. Part 302.4.; and d) any release of cyanide solutions in a quantity equal to or greater than 500 gallons as Part II.B.3c. The Code's disclosure provisions in Item 9.3.3 are fully addressed by these regulatory requirements that Marigold is required to meet.

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