SUMMARY AUDIT REPORT

for the June 2007
International Cyanide Management Code Audit

Prepared for:
Cripple Creek & Victor Gold Mining Company
Cripple Creek, Colorado, USA
[an AngloGold Ashanti (Colorado) Corp.
and Golden Cycle Gold Corporation joint venture]

Submitted to:
International Cyanide Management Institute
1200 “G” Street NW, Suite 800
Washington, D.C. 20005

FINAL
10 September 2007

Environmental Resources Management
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SUMMARY AUDIT REPORT

Name of Mine: Cripple Creek & Victor Gold Mine (a.k.a. the Cresson Project)

Name of Mine Owner: Cripple Creek & Victor Gold Mining Company, a joint venture of AngloGold Ashanti (Colorado) Corp. and Golden Cycle Gold Corporation

Name of Mine Operator: Cripple Creek & Victor Gold Mining Company, as managed by AngloGold Ashanti (Colorado) Corp.

Name of Responsible Manager: Ron Largent, Vice President Operations and General Manager

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Location detail and description of operation:

Cripple Creek & Victor Gold Mining Company’s Cresson Project is a joint venture between AngloGold Ashanti (Colorado) Corp. (the managing partner) and Golden Cycle Gold Corporation. The Cresson Project is located in one of the most significant mining districts in the State of Colorado, with the greatest level of historical mining occurring roughly between 1890 and 1920. As shown in the following figure, the project is located in mountainous terrain between the small towns of Cripple Creek and Victor, on Colorado State Highway 67, just south-southwest of Pike’s Peak. The area of the mine and its immediate vicinity has historically been heavily mined, and there are many abandoned underground workings, headworks, waste rock stockpiles, roadways, and other surface feature associated with past mining activities. Several areas of the project were previously mined through open pit methods in the 1970s and 1980s.
The current Cresson Project was designed as a large open pit operation with a dedicated, double- and triple-lined valley leach facility (VLF), and was initially permitted in 1994. Mine construction followed shortly thereafter; first doré bullion was poured in 1995. The mine has since undergone several phases of permitting to allow expansion. Mining is currently projected to continue through 2012, but investigations are underway that may potentially extend the operating lifetime. Over 190 million tons of crushed ore are now in place in the VLF; the operation’s gold production target is approximately 300,000 oz./yr.
SUMMARY AUDIT REPORT

Auditors' Finding

The operation is:  ■ in full compliance
        □ in substantial compliance
        □ not in compliance

with the International Cyanide Management Code.

Audit Company:  Environmental Resources Management
                915 - 118th Avenue SE, Suite 130
                Bellevue, Washington 98005 USA

Audit Team Leader:  John Lambert  e-mail: john.lambert@erm.com

Names and Signatures of other Auditors

Robert Richins

Glenn Mills

Date(s) of Audit:  June 25 though 29, 2007

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.

DECLARED BY JOHN LAMBERT BEFORE ME ON THIS 10th DAY OF SEPTEMBER, 2007
AT THE CITY OF VANCOUVER, IN THE PROVINCE OF BRITISH COLUMBIA.

Kitty Lam
Notary Public
Suite 1208 - 1030 WEST GEORGIA ST.
VANCOUVER, B.C. V6E 2Y3
604-687-8755

Cresson Project  Signature of Lead Auditor
Name of Mine

10 September 2007
Date

Page 4 of 41

Witnessed as to execution only.
No advice sought or given.
SUMMARY AUDIT REPORT

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.

   The operation is: ■ in full compliance
   □ in substantial compliance
   □ not in compliance …with Standard of Practice 1.1

   Discuss the basis for this Finding/Deficiencies Identified:

Sodium cyanide briquettes are purchased from Degussa CyPlus (CyPlus). CyPlus is certified by ICMI, and the cyanide provided to CC&V has been produced in compliance with the Code. The current contract between CyPlus and the mine requires that both parties maintain compliance with the Code, but does not specifically require that the cyanide producer be certified; however, the contract does require CyPlus’s manufacturing plants and transportation handling systems to be subject to third-party audits in accordance with Code requirements. Since third-party audit certification reports were available that address the entire cyanide delivery process, CC&V meets this requirement of the Code.
2. TRANSPORTATION Protect communities and the environment during cyanide transport.

Standards 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.

The operation is:  ■ in full compliance  
□ in substantial compliance  
□ not in compliance  …with Standard of Practice 2.1.

Discuss the basis for the Finding/Deficiencies Identified:

No specific written agreement addressing this requirement has been created beyond the contract between CC&V and CyPlus; however, in keeping with Code verification audit protocols for this Standard of Practice, the availability of current certification audit reports for both TriMac (the cyanide transporter) and the ICMI certified producer is sufficient evidence that the mine is in full compliance with this Code requirement.

2.2 Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management.

The operation is:  ■ in full compliance  
□ in substantial compliance  
□ not in compliance  …with Standard of Practice 2.2.

Discuss the basis for the Finding/Deficiencies Identified:

Cyanide is transported by TriMac Transportation Services, Inc. (TriMac), Houston, Texas. TriMac is contracted directly to CyPlus, and is responsible for general maintenance of trailers and ISO containers as well as all transportation to the mine site. TriMac was successfully audited by DQS GmbH on behalf of
CyPlus to ICMI standards in 2006, but as of the date of this report has not sought Code certification.

In keeping with Code verification audit protocols for this Standard of Practice, the availability of a current certification audit report for TriMac that addresses all applicable Code transport requirements is sufficient evidence that the mine is in full compliance with this Code requirement. The TriMac audit was conducted in November, 2006, by the same lead auditor that conducted the CyPlus production facility audit in Wesseling, Germany. The bills of lading provided with each shipment provide a complete record of cyanide loading at the production plant and unloading at the CC&V Adsorption, Desorption, and Recovery (ADR) plant mixing area. TriMac is the only transporter delivering cyanide to the site.
3. HANDLING AND STORAGE Protect workers and the environment during cyanide handling and storage.

Standards of Practice

3.1 Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.

The operation is: ■ in full compliance
☐ in substantial compliance
☐ not in compliance …with Standard of Practice 3.1.

Discuss the basis for this Finding/Deficiencies Identified:

Records review indicated a well-documented Quality Assurance/Quality Control (QA/QC) program for the construction and expansion of the ADR and adjacent cyanide unloading and mixing facilities. Suitability of materials, use of acceptable soil compaction techniques, liner installation, and appropriate record-keeping were all confirmed. All unloading, mixing, and storage of cyanide takes place in a dedicated, bermed concrete pad constructed adjacent to the ADR. The potential for seepage to the subsurface is extremely low as the entire area is underlain by a welded-seam HDPE liner system that is sloped to drain towards the pipeline corridor at the toe of the VLF. The conceptual design of the ADR was submitted and approved by the permitting agency, which also received and approved copies of all as-built drawings. Individual ADR design drawings and specifications for both the original construction and expansion phases were approved by a registered professional engineer.

The ADR is located within the fenced security perimeter of the project. The nearest habitations are in Victor, in a separate drainage about 1.5 miles to the southeast of the ADR entrance. All ADR drainage is to the pipeline corridor on the perimeter of the VLF and therefore managed as part of the containment features of the VLF design. Any spillage will report to the pregnant solution ponds, from which it can be pumped back to the ADR. In extreme storm events, drainage can be routed to a 22 million gallon external storage pond, from where it can also be pumped back to the ADR.

Cripple Creek & Victor
Name of Mine

Signature of Lead Auditor
Date

Page 8 of 38
Two insulated 8,200 gallon capacity storage are mounted outside the ADR on concrete foundations within a bermed concrete containment structure, sized to 110% of the largest tank volume within containment. Tank fill status is monitored from the ADR control room; the receiving tanks have alarms and high-level indicators to prevent overfill; additionally, the two tanks are interconnected if additional receiving volumes are required. Concrete berms effectively prevent the potential mixing of cyanide solution with acid. Acid storage tanks were located 30 yards from the cyanide storage area, within a separate concrete containment structure.

One ISO container of briquettes is held in reserve pending the arrival of the next shipment. Unmixed tanks are prepositioned on the dedicated concrete pad before the drivers depart the site.

### 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.

The operation is:  
- [ ] in full compliance  
- [ ] in substantial compliance  
- [ ] not in compliance  

**Discuss the basis for this Finding/Deficiencies Identified:**

All cyanide mixing and handling operations, including monitoring and inspection activities, are documented as Standard Operating Procedures (SOPs), which are distributed and maintained as an element of CC&V’s independently certified ISO 14001-based Environmental Management System (EMS). SOPs detail inspections to be completed during the unloading and mixing operations. These include checking showers, container seals, piping and tanks for damage or leakage, and signage. The procedures also include air testing to check connections are tight, and inspection of the emptied ISO-container to ensure it is clean. The SOPs also include emergency response procedures and contingency plans to address potential spillage or evacuation procedures in the event of a release of HCN.

In addition to inspections that are part of the unloading and mixing procedures, the cyanide facilities are inspected daily by the Process Operations group, with
In addition to inspections that are part of the unloading and mixing procedures, the cyanide facilities are inspected daily by the Process Operations group, with weekly inspection overchecks by the Environmental Resources group. These include the mixing tanks and the solution distribution and application systems. More detailed weekly and monthly inspections are also conducted by the Process Supervisor and the Environmental Resources group.

Preventative maintenance programs are in place at the ADR. Outside tanks and piping, are inspected monthly by Maintenance. There is also a regular inspection and maintenance program for HCN fixed and personal monitoring equipment. Deficiencies are noted and corrective actions are issued. Maintenance gives immediate priority to deficiencies that are potential health and safety risks.
4. OPERATIONS Manage cyanide process solutions and waste streams to protect human health and the environment.

Standards of Practice

4.1 Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

The operation is: ■ in full compliance
☐ in substantial compliance
☐ not in compliance …with Standard of Practice 4.1.

Discuss the basis for the Finding/Deficiencies Identified:

Operating plans include a series of standard SOPs, which are managed as part of the CC&V EMS and address cyanide unloading, mixing, operation of the in-heap leaching process, process monitoring, inspection and maintenance, and emergency response. Other management and operating plans and SOPs have been prepared and are used in the daily operations at the mine. These describe loading and unloading, mixing, caustic addition, and storage requirements, and include appropriate check-offs by operators and delivery drivers. A Spill Response Plan (SRP) is also in effect that addresses inspections, cleanup of spills, monitoring, training, efficiency audits and team member safety.

CC&V’s operating water balance is reviewed daily by the Process Operations and Metallurgical Groups. A process solution inspection is also provided three times a week by the Environmental Resources Group. The flow of new solution to the ore can be reduced based on these review processes. Solution inventories can also be shifted between the three phases of the VLF operation. Ore tonnages loaded on the heap can be adjusted as required. These procedures can be implemented individually with a targeted performance goal or they can be additively employed as necessary in response to specific situations.

The State has issued four “Authorizations to Discharge Under the Colorado Discharge Permit System” (a.k.a. CDPES) permits, one of which permits CC&V to treat water with H₂O₂ and discharge to a normally dry gulch (Arequa Gulch) in an extraordinary precipitation event. Temporary closure requirements are
also addressed in the CDPES permits, as well as the primary Mining and Reclamation Permit. If a temporary closure were to occur additional SOPs are in place; designed to ensure the safe management of the facility in temporary shutdown conditions.

Inspections of the VLF, the Pregnant Solution Storage Areas (PSSAs) within the heap, the ADR, and all environmental monitoring stations are routinely conducted by the Process, Metallurgical, Environmental Resources, and Safety Groups. Daily inspections involve internal in-heap cyanide solution storage capacity (water balance tracking), evaluation of the volume of fluid in the low volume solution collection system (LVSCS), and reviews and inspections of emergency storage pond volume availability and solution distribution line integrity. Environmental Resources also conducts routine monitoring 3 times per week. Other examples of environmental inspections include construction quality assurance (CQA) oversight of the phased expansion of the VLF and in-heap storage capabilities, including monitoring of the remediation of historic underground workings prior to liner installation; monitoring of construction of the leak detection trench and site grading; CQA/CQC of geosynthetics installation; destructive testing of liner material and seam leak testing; and preparation, review, and submittal of detailed as-built drawings for all expansions or modifications. Preventive maintenance related to cyanide use and potential for discharge and related safety considerations are given the highest priority; work orders that involve these issues are immediately approved by Supervisors and repair and/or replacement actions are initiated in a timely manner. Completion progress is tracked by the responsible supervisor and reported at weekly management meetings.

CC&V has also established and certified an ISO 14001-based EMS which includes processes for periodically assessing and improving the effectiveness of all environmental management practices, including management of cyanide. An OSHAS 18001 certification effort for the Health and Safety Management System is also planned for later this year.

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

The operation is:  ■ in full compliance  
□ in substantial compliance
not in compliance …with Standard of Practice 4.2.

Discuss the basis for this Finding/Deficiencies Identified:

This requirement is not applicable; CC&V employs heap leach extraction methods exclusively, and does not generate mill tailings.

4.3 Implement a comprehensive water management program to protect against unintentional releases.

The operation is:  ■ in full compliance □ in substantial compliance □ not in compliance …with Standard of Practice 4.3.

Discuss the basis for the Finding/Deficiencies Identified:

CC&V has developed a comprehensive water balance using a probabilistic model that has been approved by the State of Colorado DRMS and adapted for site conditions. The model considers: metered flow data, in-heap storage (heap and ponds), evaporation, precipitation, ore moisture content, storm events, potential power outages, and other parameters. CC&V staff have refined the model to track and predict the following parameters on a daily basis:

- water into the system from ore moisture, precipitation, pumpback from the VLF underdrain system, external storage pond, plant outflows, and fresh water addition; and

- water out of the system from evaporation; VLF areas under leach; water required to saturate ore; required makeup water (internal pond variance), and excess (deficit) of optimum operating requirement.

Water supply (about 2 cfs) is purchased from the City of Victor. Cost and supply constraints necessitate a very conscientious and thorough water management approach. An additional 100 gpm can be purchased from the City of Cripple Creek if so required. A maximum of about 1100 gpm is available for the operation; however, average consumption is typically <500gpm. No solutions are discharged to surface waters. The nearest perennial surface water (Cripple Creek) is about 2 miles from the operation. Arequa Gulch (downgradient from...
the VLF and external storage pond) is typically dry, indicating that there is no indirect discharge to surface water from the VLF. The VLF is operated as a zero-discharge facility, and review of engineering reports and operating records indicates that this operating target has been met throughout the life of the CC&V operation.

The key objectives of the model are to maintain an optimum water balance which maximizes gold extraction, minimizes water use, avoids discharge situations, optimizes cyanide use, and maintains sufficient volumes in the internal/external pumping systems so the pumps do not cavitate. The model is reviewed daily by the Metallurgical Group and twice a week in an inter-group meeting involving Metallurgical, Process Operations, and Environmental Resources staff. Meeting summary notes are kept; action items are established with assignments and schedules.

SOPs have been established for the continuous optimization of the water balance; procedures require routine precipitation measurement, recording, and input to the probabilistic model and related control strategies. SOPs define methods for actively moving water between the six major operating areas of the VLF to maintain in-heap “freeboard”, which is monitored on an hourly basis. At any point in time, the operator has instantaneous data available for the area under leach and associated flows. Four primary phases are further broken down into six areas and a number of sub-units. Makeup or excess volumes are recorded to enable cross-system solution transfers and modifications to application rates, or new ore additions.

Downgradient monitoring provisions include low level and high volume indicators; the Leak Detection, Collection, and Recovery System (LDCRS); a transducer network; and several other redundant cross-checks. Routine monitoring and maintenance inspections are also performed daily by the Metallurgical, Process Operations and Environmental Resources Group personnel.

The water balance considers the following inputs/criteria:

- Solutions are applied to six major areas on the VLF; these six areas are further subdivided and individually monitored.
• A conservative 100-year, 24-hour design storm was used in design and permitting (3.65 inches) plus a 12-hour power outage instantaneous drain-down situation.

• Reliable precipitation and evaporation data are provided by the meteorological monitoring stations.

• Precipitation entering the pond is tracked in gpm for the six VLF subdivisions.

• Freezing and thawing conditions require seasonal discontinuation of sidehill leaching, but have otherwise not interrupted the normal leach cycle.

• Solution losses other than evaporation are limited, due to close oversight and maintenance, and the operation of solution collection and pumpback systems at all major collection points.

• Power outages and their effects on the water balance are effectively mitigated by the availability of the emergency diesel generating system.

• Heap dynamics are also considered in the model, including delivered ore moisture, surface area, and saturation capacity.

The model also considers local climatological data, which are collected from multifunction meteorological stations and wind speed monitors at the mine site. The multifunction stations collect data year round, including wind speed and direction, wind direction, temperature, barometric pressure, and precipitation.

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

The operation is: ■ in full compliance
☐ in substantial compliance
☐ not in compliance ...with Standard of Practice 4.4.

Discuss the basis for the Finding/Deficiencies Identified:

Cresson Project ___________________ 10 September 2007
Name of Mine                              Signature of Lead Auditor       Date
Page 15 of 41
CC&V has implemented measures to protect wildlife from open waters that exceed 50 mg/l. Apart from the single small equalization pond previously mentioned, there is no open water, and no opportunity exists for cyanide concentrations to exceed 50 mg/l WAD cyanide. These measures and design features include:

- maintaining the cyanide concentration/addition at about 0.2 lb/ton of ore or approximately 10 mg/l;
- using buried drip emitters, except for side hill leaching;
- regular visual inspections of ponds, pads and distribution lines by each shift;
- fencing of the emergency storage pond;
- employing bird balls and fencing at the small equalization pond used to maintain equilibrium between the Phase II drainage basin and the Phase II PSSA;
- installation of a hydrogen peroxide detoxification system upstream of the emergency storage pond to ensure that WAD cyanide concentrations of any water released to the emergency storage pond as a result of unusual precipitation events are less than 50 ppm; and
- site-wide implementation of the CC&V Wildlife Protection Plan, which includes an electronic bird hazing system at the external storage pond. This plan describes policies and SOPs related to preventative measures, maintenance requirements, reclamation considerations, and reporting.

Monitoring results for a single 15’ X 20’ open water equalization pond (a.k.a. the “birdball pond”) were reviewed; values consistently ranged between 10-15 mg/l WAD cyanide. The pond was securely fenced and entirely covered with birdballs.

No wildlife mortalities associated with cyanide have been recorded since the mine began operation; this was verified by discussions with CC&V staff and the review of the three most recent years of inspection data.
Leach solutions are applied via drip emitters, which are buried on the top surface of the heaps. Side hill application of process solution is by unburied drip emitter. Physical examination of the VLF did not indicate any ponding. The leach pad installation Group regularly inspects the VLF during every shift to insure no ponding is occurring. The Process Supervisor also tours the pad area regularly to personally inspect the installation and application rates.

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

The operation is: ■ in full compliance
☐ in substantial compliance
☐ not in compliance …with Standard of Practice 4.5.

Discuss the basis for the Finding/Deficiencies Identified:

No cyanide-related impacts have occurred to downstream surface water as a result of the Cresson Project. The nearest perennial surface water (Cripple Creek) is about 2 miles from the operation. Although Arequa Gulch is immediately downgradient from the VLF and emergency storage pond, direct inspection and monitoring results indicate that it typically contains no flow; the VLF is operated as a zero-discharge facility and does not have any indirect discharges to surface water. The State of Colorado has primacy for the National Pollutant Discharge Elimination System (NPDES) from the U.S. Environmental Protection Agency. CC&V currently has authorizations to discharge under the CDPES for the following:

- Arequa Gulch
- CDPES General Storm Water
- Fourmile Creek Springs
- Carlton Tunnel

These permits include a “No Discharge” limitation from the VLF, except for flows from the ground water drainage system underlying the VLF. The permits also include a net precipitation exemption from the “No Discharge” limitation. Verbal and written notifications are required to the State in order for any discharge from the VLF to qualify for the exemption. The Storm Exemption from
federal effluent limitations also applies to discharges from the VLF. The Carlton Tunnel discharge area was evaluated; a series of settling ponds have been installed to collect carbonate precipitates from the discharged water, and refinements to this system are in planning. The Carlton Tunnel discharge has been evaluated by a licensed hydrogeologist and determined to be from multiple infiltration sources, only one of which is related to the CC&V operation.

As the VLF is operated as a zero-discharge facility, in all except the most extraordinary precipitation events, water will not be discharged into Arequa Gulch, and there will be no mixing zone. However, if such a situation were to occur, the current CDPES permits would permit a discharge of 0.020 mg/l WAD cyanide. The hydrogen peroxide destruct system would be operated at the external storage pond as necessary in such an event to achieve these values prior to discharge. It should also be noted that the cyanide monitoring requirement has been removed from the Carlton Tunnel discharge permit on the basis of a long history of nondetects and “reasonable potential analysis.” A cyanide monitoring requirement still remains in the Fourmile Creek spring permit (located downstream from the settling ponds below the Carlton Tunnel discharge; monitoring data also indicate a long history of nondetects for cyanide at this sampling point, however, it is understood that CC&V has prepared the data and has submitted documentation to substantiate a similar “reasonable potential analysis” exemption for the Fourmile Creek permit.

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

The operation is: ■ in full compliance
☐ in substantial compliance
☐ not in compliance ...with Standard of Practice 4.6.

Discuss the basis for the Finding/Deficiencies Identified:

The CC&V operation has installed a double synthetic liner design component at the PSSAs (i.e., the in-heap solution pond system) over a layer of compacted clayey soil. The liner design also includes a LVSCS between the synthetic liners. Cyanide solution seepage is collected in this system, which drains to a central sump/collection point prior to being continuously pumped back to the heap. The LVSCS is monitored on a daily basis. A pumpback arrangement is located
down-gradient from the VLF and the external storage pond and provides an effective means of managing near-surface alluvial groundwater and further protecting surrounding water resources.

CC&V has adopted a 0.2 mg/l WAD cyanide limit to protect local ground water resources. This is also a requirement of the State Mining Permit. Two ground water compliance monitoring wells are located downgradient of the VLF and the pumpback system. Monitoring data indicate that no groundwater exceedances have occurred for cyanide.

CC&V operates a VLF and does not generate any tailings. It is understood that some tailings historically treated with cyanide were present in the VLF footprint area and were partially moved and regraded as part of the basin preparation. No mill tailings were used for remediation of underground workings, however, because they did not have the necessary geotechnical properties to be used as fill. Filling of historic mine workings under the VLF typically involved backfill with cemented development rock, coarse shaft backfill, cement plugs, and cover and grading using structural fill. Construction records indicate that similar engineered practices were employed prior to placement of sub-base or liner installation at the VLF. QA/QC records were reviewed for all four phases of leach pad construction and found to be acceptable.

Monthly reports required by the Colorado Department of Public Health and Environment for the past 12 months were reviewed. There were no recorded events during this timeframe in which cyanide concentrations in ground water exceeding 0.20 mg/l (WAD); beneficial uses have not been impaired.

The surface water standard for Arequa Gulch is 0.020 mg/l (WAD), and has not been exceeded. Arequa gulch is normally dry, however, and a review of environmental records shows that no surface water has been measured at the compliance point since 2002.

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

The operation is: □ in full compliance
□ in substantial compliance
□ not in compliance ...with Standard of Practice 4.7.
Discuss the basis for the Finding/Deficiencies Identified:

Spill prevention and containment SOPs are in place for all cyanide unloading, storage, mixing, and cyanide application activities. Operating directives on unloading, mixing and storage are also provided by CyPlus and incorporated by CC&V as SOPs. These measures include regular (daily/monthly) inspections, inter-departmental meetings and record keeping, and regular training. Training activities have included mock drills designed to emphasize responses to cyanide-related emergencies. CC&V has also completed a “community exposure analysis” by a qualified third-party consultant. This review and its findings have been incorporated within the overall cyanide handling and emergency response program.

Secondary containment design and as-built drawings were reviewed. Plans show that secondary containment includes the capacity to contain 110% of the largest tank within an individual containment area, plus solution in the respective service pipeline(s). The entire ADR plant and cyanide unloading facilities are also lined. All secondary containment areas are served by sumps with pump-back equipment. Key pumps are automatic and are activated when fugitive flows are measured; activation switches are triggered by transducer-measured water levels. SOPs are posted at the various monitoring points; in-heap pond levels are not allowed to exceed 80% of the permit volume limits. Environmental Resources field inspection report forms are used to track daily/monthly conditions.

All CC&V cyanide process water pipelines are aboveground, and placed on synthetic liners. Spill containment measures are provided for all such pipelines. These are all located over the top of the VLF liner system or inside the containment areas of the ADR plant. The engineered liner and LVSCS design involves a number of redundancies that reduce the risk of fugitive cyanide solution leaving the containment area or facilities.

CC&V has a well-engineered and tested leak detection program that enables rapid identification of potential fast or slow leaks in the supply pipelines and distribution system. Process Operations and Environmental Resources personnel routinely inspect cyanide process solution pipelines. There is no perennial surface water in the mine area, so inspections are designed to protect storm water and ground water quality.
Based upon direct observations and interviews with key personnel, the risk to local surface water quality from an unplanned pipeline breakage is extremely low. Cyanide pipelines and tanks are constructed of coated steel or geosynthetic materials. They are installed according to prescribed technical specifications and were leak-tested prior to commissioning. This includes pre-operational testing and performance testing. Anti-scaling equipment is also employed. Piping is tested to ensure that welding is complete and all valves, meters, regulators, guards, etc. are in sound working order. Tankage is checked for welding, hydrostatic, X-Ray and sonic testing to ensure structural competency. These tests include checklists and “red-tag” procedures for isolating piping system elements requiring repair or replacement. Individual tank and pipeline testing reports were reviewed and found to be well-documented.

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

The operation is: ■ in full compliance □ in substantial compliance □ not in compliance …with Standard of Practice 4.8.

Describe the basis for the Finding/Deficiencies Identified:

QA/QC records and design details for the ADR plant were reviewed, including a review of the liner installation requirements including liner deployment, seaming, deflection repair and testing for VLDPE and LLDPE liner installations and extensions around the ADR plant in 2004. Concrete QA/QC installations and certifications and earthwork specifications were also reviewed and determined to be complete.

The CQA/CQC program employed during VLF construction also evaluated deployment, seaming, defect repair and testing of the LLDPE installation. The LVCRS design concept and CQA program for a typical installation was also reviewed. In all cases, construction revision details were issued as “as built” drawings. The program for filling historic mine workings prior to liner installation was also noted as a critical element of the overall design and CQA process for VLF construction. The program is systematic and involves a number
of back fill and plugging techniques, which must be carefully monitored during construction and for long-term operations. A permanent surface water diversion system was also extended using the 100-year 24-hour storm event design criteria.

Qualified personnel have reviewed the cyanide facilities construction, typically including the design engineer (Registered Professional Engineer), Chief Inspector, and a Colorado Registered Professional Engineer, all of which are required as part of the State Mining and Reclamation Permit process. The design engineer certified that all construction was completed in compliance with the design drawings and specifications as required by the Office of Mined Land Reclamation.

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

The operation is: ■ in full compliance  
☐ in substantial compliance  
☐ not in compliance ...with Standard of Practice 4.9.

Describe the basis for the Finding/Deficiencies Identified:

A written monitoring protocol has been adopted by CC&V that addresses the VLF, the PSSAs, the LDCRS, underdrains, and Arequa Gulch monitoring activities. The “Environmental Sampling Protocol Guide – Cripple Creek & Victor Gold Mining Company” serves as the basis for sampling by the Environmental Resources Department and has been updated periodically. This program provides for collection of both environmental baseline and compliance-related data. Key elements include:

- surface water sampling,
- ground water sampling (wells),
- stream flow measurements,
- flume measurements,
- flow meter use,
- monitoring well equipment,
- dedicated well equipment,
- chain-of-custody,
• sample shipment considerations, and
• monitoring site map.

In addition, a second document entitled: *Environmental Sampling Protocol Guide for Colorado Department of Public Health and Environmental Permits (June, 2000)* describes sampling procedures, chain-of-custody, records management, and sampling protocols that apply to Arequa Gulch, Carlton Tunnel, and Fourmile Creek CDPES permits. This guidance document is also regularly reviewed and updated and properly reflected in CC&V’s monitoring program. Qualified personnel in the Environmental Resources Group are responsible for developing and updating this document. These personnel attend related training sessions and conferences on a regular basis and have extensive experience in managing mining-related environmental programs.

Field inspection report forms are also used to document physical parameters and field conditions. The CC&V Environmental Department has also conducted site audits of the contract laboratory (Mid-Continent Testing Laboratories, Inc. in Rapid City, South Dakota). CC&V also monitors for cyanide discharges in the LDCRS, down-gradient ground water wells, and down-gradient surface water. At the VLF area, sampling is performed at 13 LDCRS sites; 11 ground water/spring, ponds and underdrains; and at 3 LVSCS sumps.

CC&V has adopted and implemented “Procedures for Handling and Reporting Wildlife Incidents to the Colorado Division of Wildlife.” Daily monitoring and monthly reporting is conducted by the Environmental Resources Department. These protocols address notifications, procedures for handling, reporting and documenting. A Wildlife Protection Plan was finalized in April, 2007 includes preventative measures for ponds and active leach pads, the mine high walls, general best management practices or sediment control recommendations, maintenance and inspection of preventative measures, reclamation considerations and reporting of sick or dead wildlife.

It may be noted that no cyanide-related wildlife fatalities have been recorded in the life of the mine, and there are no process discharges to surface water. Water supply is typically limited or restricted, and the facility operates at a negative water balance through the majority of the year. Buried cyanide application systems effectively limit exposure to wildlife. WAD cyanide analyses are also performed using standard EPA methods at an EPA-certified laboratory.
5. DECOMMISSIONING Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.

Standards of Practice

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

The operation is: □ in full compliance
□ in substantial compliance
□ not in compliance ...with Standard of 5.1.

Describe the basis for the Finding/Deficiencies Identified:

Several sections of the Project Description section of the governing permit document address specific decommissioning and reclamation procedures that will be applied to the VLF, ADR, and other cyanide-related infrastructure. Although written as part of the permit application, the level of detail is sufficient to guide decommissioning activities and could form the basis of appropriate SOPs when mine life reaches that phase.

An implementation sequence for cyanide facility decommissioning is also implied in the permit application; an actual schedule is included in a separate internal estimate. Although the decommissioning scope in the internal estimate is narrower in some respects from the scope implied in the permit, it is understood that when the decommissioning phase is reached, the internal estimate, schedule and budget will need to be reconciled with the bonded scope represented in the permit. It should be noted that VLF flushing will be managed as an operational cost as long as gold recovery offsets the operational costs of the ADR. It should also be noted that appropriate decommissioning procedures are reviewed and updated as part of formal VLF-related Technical Revisions (TRs) or Amendments prepared and submitted to the Office of Mined Lands Reclamation (OMLR); these are the approval mechanisms by which CC&V negotiates project changes and modifications.
5.2 Establish an assurance mechanism capable of fully funding cyanide-related decommissioning activities.

The operation is:  ■ in full compliance  
☐ in substantial compliance  
☐ not in compliance  ...with Standard of Practice 5.2.

Describe the basis for this Finding/Deficiencies Identified:

CC&V is required to provide a financial warranty for the decommissioning of the mine, including all cyanide infrastructures, as part of its governing permit. CC&V reviews the adequacy of its financial warranty at least annually; the adequacy of the warranty is also evaluated with every TR or Amendment submitted for facility modifications or changes. CC&V has arranged for a package of sureties or bonds through various lending institutions to address the closure cost estimate established by the permit, and review of several annual reports indicates that bonds have been systematically increased to address increases in the closure estimates. Costs estimates are based on the probable decommissioning effort that would be incurred by a third party.
6. WORKER SAFETY Protect workers’ health and safety from exposure to cyanide.

Standards of Practice

6.1 Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation is:  ■ in full compliance  □ in substantial compliance  □ not in compliance …with Standard of Practice 6.1.

Describe the basis for the Finding/Deficiencies Identified:

Cyanide SOPs are managed as part of the CC&V EMS. Specific procedures address unloading, mixing, plant operations, confined space entry, and equipment decontamination. They also address cyanide-related tasks to minimize worker exposure related to:

- maintenance, repair, modifications, and other activities conducted in proximity to the cyanide circuits;
- cyanide truck unloading and inspection;
- cyanide batching;
- sampling of cyanide-containing solutions;
- opening of tanks in the ADR area; and
- pre-treatment of solution batches.

SOPs also address PPE requirements and pre-work inspections/precautions. The EMS also has a Change Management Procedure that applies to all significant operational changes, whether planned or unplanned, to ensure that significant environmental impacts are considered in advance of change implementation. In addition, the work order process includes management sign-off and approval when maintenance requires a non-routine procedure or material change. Workers are encouraged to provide input into procedural changes in regularly scheduled meetings. There is also an informal process in effect for soliciting process improvement input by operations staff.
6.2 Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation is: ■ in full compliance □ in substantial compliance □ not in compliance …with Standard of Practice 6.2.

Describe the basis for the Finding/Deficiencies Identified:

SOPs require that pH targets for process solutions be > 10; pH levels are monitored by process operators through inline sensors and portable pH meters, and data are recorded on Daily Solution sheets. pH of the cyanide solutions in the ADR are maintained by application of caustic during the batch and pretreatment batch mixing process. In the batch mixing process, the pH alarm is set at 12; the pretreatment batch procedure requires a pH >12.

The barren feed sent from the plant to the VLF is maintained at pH 10 - 10.5. The pH of the pregnant solution (plant feed) is maintained by the addition of lime to the leach pad. The low cyanide solutions returning from the Phase I and II pads are mixed with Phase IV pregnant solutions, resulting in a current plant feed pH of about 9; however, process improvements to increase the application of heavier doses of lime are underway and are expected to raise the feed pH to >10.

SOPs specify when personal gas-monitoring units must be used for specific operations. Where operators or maintenance personnel need to work in areas where there is a potential for HCN exposure they wear personal HCN detectors. Two types of personal portable detectors are used: Monotox and Toxipro. The Monotox device is calibrated 5 ppm (low alarm) and 10 ppm (high alarm). The newer Toxipro monitors are calibrated to alarm at 4.7 ppm. These detectors have rarely (2 or 3 times in past 10 years) alarmed, indicating that continuous 8 hr exposures above 4.7 ppm do not occur. CC&V is moving towards using Toxipro portable monitors as these units are easier to use, can be calibrated to 4.7 ppm, and can be calibrated in-house. There are presently five of these units, which are also calibrated monthly.

Monitoring equipment is part of regular preventive maintenance schedules. There are 10 Senalert systems permanently located in key locations throughout the ADR, which are tested and calibrated monthly. The Monotox devices are
checked monthly and also sent to the supplier every six months for service. CC&V are moving towards using Toxipro monitors as these units are easier to use, can be calibrated to 4.7 ppm and can be calibrated in house. There are presently five of these units, which are also calibrated monthly.

Cyanide warning signs are posted at frequent intervals around the VLF, on the doors of the ADR building and on piping and vessels inside and outside the ADR. Piping containing cyanide was also well marked to show flow direction. Signs were clean, clear and posted in visible places. Signage instructing no eating and drinking are posted on the front door of the ADR. No smoking signs are located outside of the ADR. Smoking is also prohibited in the leaching, processing or control room areas.

Eyewash/shower units are located throughout the ADR where chemicals are handled, and near the cyanide unloading station, the caustic and HCl tanks and the peroxide treatment facility. The units operate at a regulated pressure of about 35 psi. The units are checked daily by the process operators during the pre-shift inspection and in monthly ADR Emergency Equipment inspections. Fire extinguishers are primarily ABC dry units in the ADR, and only dry units are located where cyanide is handled. These are checked monthly during ADR Emergency Equipment inspections and were observed to be easily accessible and were clearly tagged.

Electronic copies of all MSDSs are accessible to all employees via the company intranet or Carlton Security. First Aid procedures for cyanide are also posted at strategic locations in and near the ADR.

CC&V’s incident reporting and investigation procedure is also used for reporting and investigating near misses. Incidents are investigated by the supervisor and reviewed by management. CC&V has a robust program for reporting, reviewing, communicating, and following up any recommendations.
6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is:  ■ in full compliance
□ in substantial compliance
□ not in compliance  ...with Standard of Practice 6.3.

Summarize the basis for this Finding/Deficiencies Identified:

All process and maintenance staff and contractors are equipped with radios to allow communication in case of an emergency. There are a total of eight medical response kits at the mine. The kits include a first aid cabinet, medical oxygen with valved mouth pieces and an antidote kit. The kits are inspected monthly.

CC&V recently completed a several month long study of their antidote storage practices. The results of the study indicated that all but two of the kits were being stored within the storage temperature range recommended by the manufacturer. One kit stationed in the laboratory was relocated. CC&V is in the process of modifying the other kit station by installing a heated NaCN box kit for the antidote kit storage.

CC&V has developed a Cyanide Emergency Response Plan (CERP), which describes the standard procedures to be followed in the event of an unplanned release of cyanide. The plan references SOPs for minimizing potential for cyanide releases and worker exposure. All employees are taught first aid treatment for cyanide exposures during New Miner Training and at Annual Refresher training provided by qualified CCEMS staff. Oxygen can be given due to a blanket qualification from a physician with Teller County Emergency Services; other medical assistance must be provided from CCEMS (approximately 6 minutes away in an emergency).

CC&V Mine Rescue Policies and Procedures include cyanide training, response capabilities to cyanide incidents, and specific response equipment available to the Mine Rescue Team (MRT). Specific procedures for first aid treatment of cyanide exposure, and transporting patients for follow-up treatment are included in the MRT SOPs. If an incident requires transport of an injured or cyanide-...
exposed person offsite for further medical attention, CC&V uses the local ambulance service from Cripple Creek. For more serious cases, LifeFlight helicopter evacuation may be used.

The Teller County Emergency Services (TCES) are well prepared to receive and treat a cyanide-exposed patient; TCES staff provide advice to CC&V as required and conduct the annual refresher training for CC&V staff.

Mock drills are scheduled annually, the most recent drill was performed in June 2007 and included participation of the Cripple Creek Police Department, Cripple Creek EMS, Victor and Cripple Creek Fire Departments, and LifeFlight. The debrief memo indicated that the external responding units thought the drill was a good exercise. A number of suggested improvements were documented and appear to have been acted on.
7. EMERGENCY RESPONSE Protect communities and the environment through the development of emergency response strategies and capabilities.

Standards of Practice

7.1 Prepare detailed emergency response plans for potential cyanide releases.

The operation is: ■ in full compliance  
□ in substantial compliance  
□ not in compliance  …with Standard of Practice 7.1.

Describe the basis for the Finding/Deficiencies Identified:

CC&V has established a Cyanide Emergency Response Plan (CERP), which is an element of the site Emergency Response Plan (ERP). The Cyanide Emergency CERP considers the potential release scenarios applicable to the site and describes the measures incorporated into the operation to mitigate the potential effects if such a scenario were to occur. The plan takes into account the method of shipment and the form of cyanide transported. It considers only transportation accidents that could occur during transport of cyanide between the gate and the cyanide off-loading pad. It does not address any off-site incident related to transportation of cyanide, as is the responsibility of the seller (CyPlus) as described in the governing Purchase Agreement.

The CERP includes evacuation actions that should be taken for various scenarios including potential impacts to off-site communities. The plan links to the site-wide ERP and Crisis Communication Plan (CCP) for onsite communication procedures and contacts with community response agencies. The CERP also addresses first response actions, location of antidotes, location of equipment, clean up procedures, and mitigation measures. The CERP also has requirements for periodically reviewing, evaluating and revising response procedures.
7.2 Involve site personnel and stakeholders in the planning process.

The operation is: ■ in full compliance  
☐ in substantial compliance  
☐ not in compliance  ...with Standard of Practice 7.2.

Describe the basis for the Finding/Deficiencies Identified:

The CERP was developed with input from key employees. Potential release scenarios were identified with process department personnel. CC&V consults with its employees periodically to assure that the CERP addresses current conditions and risks. CC&V also seeks input from community emergency response departments that participate in mock drills. As noted in Section 9.3, a significant amount of stakeholder input was obtained in the public meetings associated with the review and approval process for CC&V’s State mining and County land use permits. Concerns about emergency situations were addressed early on in the project as part of the review/response process.

As also noted in 9.1 and 9.3, CC&V maintains a full time community relations management function and is actively engaged in a wide range of public outreach activities that provide opportunities for stakeholders to ask questions or raise specific concerns about the management of cyanide. Periodic meetings are initiated with various stakeholder groups, and corporate policies are in effect that are designed to ensure that external inquiries are evaluated and properly responded to.

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

The operation is: ■ in full compliance  
☐ in substantial compliance  
☐ not in compliance  ...with Standard of Practice 7.3.

Describe the basis for the Finding/Deficiencies Identified:

The CERP designates primary and alternative ER coordinators with the appropriate authority to implement the plan. The site ERP identifies the
mobilization procedures as well as response team members and their contact information. There are flow charts for each class of emergency which identify the role/responsibility of each response team member. Emergency response equipment storage locations are also provided in the ERP; detailed equipment lists are kept at each storage location. Equipment is checked monthly.

The role of outside responders is also described in the ERP, which includes a list of local emergency contacts, roles and responsibilities of the local Fire Department and LifeFlight mine coordinate information. The Cripple Creek Fire Department has been briefed on the location of flammable materials and response agreements are in place; they are routinely invited to participate in mock fire drills that are undertaken semi-annually. CC&V also conducts annual mock cyanide emergency drills as required by the CERP. When these drills are planned, outside agencies are made aware of the drill and invited to participate.

7.4 Develop procedures for internal and external emergency notification and reporting.

The operation is:

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

...with Standard of Practice 7.4.

Describe the basis for the Finding/Deficiencies Identified:

The CERP and ERP provide on site emergency response contact procedures. As described in the plan, the discoverer contacts his/her supervisor to report the situation. The supervisor contacts security and initiates a site wide alarm. Security contacts the primary ER coordinator and senior management as necessary. The ER coordinator in turn authorizes MRT mobilization. A member of the senior site management other than the primary coordinator is responsible for determining if outside assistance is required.

Cripple Creek Police Department is the first point of contact for local emergency services; notification of outside agencies and regulators is the responsibility of mine management.
The CERP also includes procedures for contacting the media, as well as downstream water users if the watershed below the VLF (Arequa Gulch) were to be impacted.

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

The operation is: ■ in full compliance  
☐ in substantial compliance  
☐ not in compliance  ...with Standard of Practice 7.5.

Describe the basis for the Finding/Deficiencies Identified:

Drinking water supply wells are a considerable distance from the site, and are highly unlikely to be affected by any spills. The Cities of Victor and Cripple Creek are on a municipal water supply with a reservoir source upgradient of the mine site. CC&V uses only bottled water; there is no other potable water supply.

The potential for a cyanide spill to the ground surface outside the containment area is low as the ADR and VLF are all underlain by an engineered liner system. If a spill did occur off-liner, contaminated soil material from spill cleanup is required to be placed on the VLF heap. Spilled solutions and carbon granules within the ADR are recycled back into the process.

The CERP specifies actions to be taken to respond to a spill and requires soil neutralization using sodium hypochlorite solution and over-excavation of the spill area to ensure all impacted material, including neutralized material, is removed. Cyanide SOPs implemented in the ADR also details procedures for clean up of a plant-site cyanide spill. The Spill Prevention, Control and Countermeasure (SPCC) Plan also provides general guidance for collection and analysis of soil samples.

In the event of a spill to surface water (i.e., a hypothetical release to Arequa Gulch) samples would be collected at established downstream locations as close to the point of entry as possible. Methods for collection and analyzing samples to confirm cleanup of spills are provided in the SPCC Plan. The CERP also
specifically prohibits any attempt to oxidize, neutralize or otherwise treat cyanide once it has entered surface water.

7.6 Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is:

■ in full compliance

□ in substantial compliance

□ not in compliance …with Standard of Practice 7.6.

Describe the basis for the Finding/Deficiencies Identified:

Documents are controlled via the provisions of CC&V’s ISO 14001-based EMS, which specifies that documents are reviewed at a minimum every two years or on a schedule designated by regulation. The cyanide SOPs and CERP are reviewed annually. The CERP requires review and revision as necessary after any incident, and also requires that mock cyanide emergency drills be undertaken annually. As previously noted, drill results are routinely critiqued, and subsequent corrective action may result in modifications or improvements to the CERP or associated SOPs.
8. TRAINING Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standards of Practice

8.1 Train workers to understand the hazards associated with cyanide use.

The operation is:  ■ in full compliance
□ in substantial compliance
□ not in compliance

...with Standard of Practice 8.1.

Describe the basis for the Finding/Deficiencies Identified:

CC&V trains all employees in cyanide hazard recognition as part of new hire/annual refresher training. All contractors are required to view a video that addresses cyanide management issues and hazards recognition, which is accompanied by hands-on training by the Safety Coordinator if they are working in an area involving use of cyanide. In critical process areas on-the-job training in SOP requirements is provided by experienced operators and supervisors. Training issues are also routinely addressed in weekly safety meetings and monthly process area reports to upper management. Critical process SOPs are retained in readily accessible plant areas. Additionally, employees participate in annual emergency response drills; see Section 7.3 and 7.6.

CyPlus also sponsors a yearly refresher training course that all Process Operations and Mine Rescue Team (MRT) personnel attend, along with representatives of the Cripple Creek EMS (CCEMS). The CCEMS ambulance team provides First Aid training.

Completion of new SOP training topics is an incentive or condition for advancement in pay grade and scale; employee performance reviews are linked to training topics, many of which address cyanide management issues.
8.2 Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation is: ■ in full compliance
disable in substantial compliance
disable not in compliance … with Standard of Practice 8.2.

Describe the basis for the Finding/Deficiencies Identified:

As noted in Section 8.1, all Process Operations workers are subject to an SOP-based training program implemented by the Supervisor and experienced process operators. All processes involving the use of cyanide are documented as SOPs, administered under the CC&V ISO 14001 EMS. These SOPs form the basis of operator training, which is further developed via annual refresher courses and (if MRT members are involved) monthly MRT training sessions based on the CC&V Emergency Response Plan (ERP). Training issues are also routinely addressed in weekly safety meetings and monthly process area reports to upper management. Additionally, employees participate in annual emergency response drills; see Sections 7.3 and 7.6. Training records are properly retained as noted in Section 8.1.

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

The operation is: ■ in full compliance
disable in substantial compliance
disable not in compliance … with Standard of Practice 8.3.

Describe the basis for the Finding/Deficiencies Identified:

All processes involving the use of cyanide are documented as SOPs, administered under the CC&V ISO 14001 EMS. SOPs form the basis of operator training, which is further developed via annual refresher courses. The completion of new SOP training topics is an incentive or condition for advancement in pay grade and scale; employee performance reviews are linked to training topics, many of which address cyanide management issues.
All personnel receive basic first aid training and annual cyanide awareness training via annual “refresher” training, as noted in Section 8.1. The MRT is composed of volunteers who participate in monthly training sessions, sometimes involving State (medical)-certified trainers from the CCEMS, as well as the SOP-specific cyanide training associated with their routine job functions.

The MRT is trained in the requirements of the ERP as well as the first responder and the various levels of MRT qualifications they receive as part of their monthly training with CCEMS. The MRT is trained in the full requirements of the ERP.

Training is also conducted through mock drills. CC&V conducted emergency drills in May 2006 and June 2007. The latter drill clearly considered the lessons learned from the earlier drill. The June 2007 drill simulated results of a workplace exposure and for potential airborne environmental impact originating in the ADR. The Victor and Cripple Creek fire departments, the CCEMS (ambulance), and the LifeFlight helicopter from Colorado Springs all mobilized in response to the alert.

The drill was evaluated and “lessons learned” information shared at regular management meetings. Evaluation records indicated that training was largely adequate, with the exception that security guards would have benefited from additional assistance from the MRT or experienced process operators. The suggested improvements from the review focused primarily on improving communications infrastructure; however, overall results indicated that the workforce knew what to do and responded appropriately and as trained.
9. **DIALOGUE** Engage in public consultation and disclosure.

**Standards of Practice**

9.1 Provide stakeholders the opportunity to communicate issues of concern.

The operation is:  ■ in full compliance
☐ in substantial compliance
☐ not in compliance  …with Standard of Practice 9.1.

Describe the basis for the Finding/Deficiencies Identified:

CC&V maintains a full time community relations manager function and actively engages in a wide range of public outreach activities that provide opportunities for stakeholders to ask questions or raise specific concerns about the management of cyanide. Periodic meetings are initiated with economic development groups, various chambers of commerce, local county focus groups, and the City Councils of Victor, Cripple Creek, and (on occasion) Woodland Park. In addition, corporate policies are in effect that are designed to ensure that external inquires are evaluated and properly responded to. CC&V also was obliged, as part of its state and county-level permitting activities, to conduct several large public meetings in Denver, Colorado Springs, surrounding communities, and other locations in which the cyanide management strategies and practices of the mine were explained and discussed at a significant level of detail.
9.2 Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

The operation is:  ■ in full compliance
       □ in substantial compliance
       □ not in compliance  …with Standard of Practice 9.2.

Describe the basis for the Finding/Deficiencies Identified:

As noted in Section 9.1, CC&V maintains a fulltime community relations management function and is actively engaged in public outreach activities that provide many opportunities for stakeholders to ask questions or raise specific concerns about the management of cyanide. Periodic meetings are initiated with a wide range of special interest and focus groups. CC&V also maintains a website that includes a substantial amount of descriptive information about the key elements of the mining process. Mine tours are routinely organized; a detailed tour guide is made available to tour participants that explains the historical use of cyanide in the district and its routine use in the leaching process. As part of the permitting process, large public meetings were held in which the mine’s cyanide management strategy was discussed in substantial detail.

9.3 Make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation is:  ■ in full compliance
       □ in substantial compliance
       □ not in compliance  …with Standard of Practice 9.3.

Describe the basis for the Finding/Deficiencies Identified:

As noted in Section 9.1, the public hearings required by the State and County permitting processes have provided open forums for the discussion of cyanide management at the site. Records and interviews indicate that such hearings have been extremely well attended. Written process summaries have been developed for distribution via the CC&V website and in the current brochures prepared for the interested public. Use of dilute cyanide in leaching processes was explained in discussions of the VLF and of the leaching process itself. Written
presentations and other materials have been presented in public meetings with the Colorado State Senate, various county organizations, county commissioners, cattlemen’s associations, and other interest groups that describe the mine’s cyanide management practices in extensive detail. Evidence exists that academic tours sometimes prompt full and open discussions of CC&V’s practices as examples of a well-operated heap leach facility. Summaries have also been included in the 2005 corporate Report to Society published by AnglGoldAshanti Ltd. The 2006 Report to Society further describes the AngloGold Ashanti’s commitment to the Code.

No offsite spills or releases have occurred in the life of the mine. Only one minor cyanide-related incident has occurred (January 1997). The incident was considered to be non-reportable, as no hospitalization or medical treatment beyond use of emergency oxygen was required and the employee suffered no adverse effects. The incident was related to a procedural error in a routine maintenance action in the ADR. The cause of the incident was investigated, widely discussed in routine safety meetings, and resulted in a number of process equipment modifications and operational improvements.

Review of CC&V ERP protocols indicates that any cyanide exposure resulting in hospitalization or a fatality would fall in an action category requiring the most rigorous measures to preserve human life and subsequent corrective and preventive action. Public disclosures of the details of reportable events are controlled via CC&V and AngloGold Ashanti NA crisis communications plan requirements, and typically include website press releases, meetings with the press, or other actions as management and legal counsel deem appropriate. Information on actual releases and exposures that are reportable under governing regulations is also available to the public upon request through the responsible regulatory agency.