

Prepared for:

Barrick Cortez
HC66 Box 1250
Crescent Valley Nevada USA
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INTERNATIONAL CYANIDE
MANAGEMENT CODE
GOLD MINING OPERATION
RECERTIFICATION AUDIT

Summary Report

Barrick Cortez Mine


June 9, 2017

**BARRICK CORTEZ, NEVADA
ICMC RECERTIFICATION AUDIT - SUMMARY REPORT**

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1. INTRODUCTION, SUMMARY, AND ATTESTATION

This summary report has been prepared to meet the requirements and intentions of the International Cyanide Management Institute (ICMI) to demonstrate that following named project has met the obligations in implementing the International Cyanide Management Code (Code).

Name of Project: Barrick Cortez

Project Owner / Operator: Barrick Gold

Name of Responsible Manager: Matthew Gili, General Manager

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Audit Company: Environmental Resources Management (ERM)
Audit Team:

Lead Auditor: Michelle Gillen, CEA
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Gold Mining Technical Expert Auditor: Judy Fedorowick, CEA, EMSLA
Email: judy.fedorowick@erm.com

Date of Audit: This recertification audit was conducted December 12-15, 2016.

Auditors Findings:

	<input checked="" type="checkbox"/>	in full compliance with	
Barrick Cortez Mine	<input type="checkbox"/>	in substantial compliance with	International Cyanide
is	<input type="checkbox"/>	not in compliance with	Management Code

This operation has not experienced compliance problems during previous three-year audit cycle.

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Attestation:


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.

<u>Michelle Gillen</u>	<u></u>	<u>June 9, 2017</u>
Name of Auditor	Signature of Lead Auditor	Date

Name and Signature of Other Auditors:

<u>Judy Fedorowick</u>	<u></u>	<u>June 9, 2017</u>
Name of Auditor	Signature Auditor	Date

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2. LOCATION AND DESCRIPTION OF MINING AND MILLING OPERATION


The Barrick Cortez (Cortez) gold mine is located 78 kilometers southwest of Elko, Lander County, Nevada and approximately 30 air-miles southeast of Battle Mountain, Nevada. More specifically, the mine is within Sections 28, 29, 30, 31, 32, and 33, Township 28 North, Range 47 East, and Sections 4, 5, and 6, Township 27 North, Range 47 East, Mount Diablo Baseline and Meridian. The Cortez Pipeline property is 11 kilometers northwest and the Cortez Pediment property (which includes the Cortez Hills deposit) is 4 kilometers southeast of the original Cortez milling complex. The Pipeline and South Pipeline deposits are mined by conventional open-pit methods. The Cortez property covers approximately 2,800 square kilometers on one of the world's most highly prospective mineral trends. In 2016 Cortez purchased the Robertson Mine which is located 4 mile north of the Pipeline Mill. The intent is to develop a shallow open pit property with production to commence 2022 to approximately 2029

Cortez employs three different metallurgical processes to recover gold. Lower-grade oxide ore is heap leached, while higher-grade non-refractory ore is treated in a conventional mill using cyanidation and a carbon-in-leach ("CIL") process. In addition, minor amounts of refractory ore is stockpiled and transported off-site for processing. Heap leached ore is hauled directly to leach pads for gold recovery. Carbonaceous mill ore is mined intermittently during the mining of the Pipeline/South Pipeline deposits. The Cortez Hills underground mine is accessed by twin declines portaled in the old Cortez Gold F canyon pit. The breccia ore zone employs underhand cut and fill mining methods with cemented rock fill as backfill. The top cut of the underground mine will eventually be the bottom bench of the Cortez Hills open pit. In the first eleven months of 2016 (up to November 28, 2016), the mine produced 938,761 ounces of gold. Typical amounts in 2015 and 2014 were 1.0 million ounces of gold per annum.

The Cortez Mine's ore bodies extend beneath the pre-mining water tables. Therefore, dewatering of the host rock and alluvium must be performed in advance of mining. The pit is currently dewatered at rates of approximately 22,000 to 27,000 gallons per minute (gpm), with a peak permitted rate of 34,500 gpm, by a system of ten deep bedrock wells, and seven alluvium wells, with an average cased depth of 1818 feet and 904 feet, respectively. The Cortez pit/UG is currently dewatered at rates of 9,000 to 12,000 gpm, by a system of 25 pumping wells in a variety of hydrogeological formations of varying depths. As a whole, Cortez dewatering has a peak permitted pumping rate of 36,100 gpm. . The wells discharge to a collection pipeline systems that connect to the Pipeline Infiltration Project infiltration-sites where water percolates into unsaturated alluvium subject to Water Pollution Control Permits. Water quality monitoring has confirmed that the dewatering circuit is separate and distinct from the cyanide processing circuit.

Area 28 facilities consist of a CIC facility, pregnant solution pond, reclaim/barren solution pond, a storm water event pond, and out of service ancillary support facilities to process heap solutions. The Area 28 heap leach facilities have been constructed in association with the tailings impoundment and provide the embankments for the impoundment. The Area 28 tailings impoundment consists of rotating spigot discharge locations and a decant pond area. Cortez uses a ferrous sulfate cyanide detoxification treatment system to keep the spigot discharge below 50 milligrams per liter WAD cyanide. The Area 28 heap leach and tailings facilities are managed as a single process water unit with the decant water pipeline from the tailings decant pond reporting back to Mill #2 for reuse. In addition, the tailings internal underdrain system collects and manages solution from the consolidating tailings and reports to the heap leach process ponds which report back to Mill #2. Area 30 facilities consist of an additional heap leach facility, two pregnant ponds, a barren pond, a storm water event pond, and a CIC recovery facility.

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All the heap leach and tailings facilities have been constructed with composite HDPE geomembrane and compacted low permeability soil liners. The process water ponds all are constructed with double HDPE geomembrane liners and leak collection and recovery systems. The Mill #2 facility employs a CIL process, storage tanks, thickeners, refinery, mercury scrubber, secondary containment systems, associated appurtenances, and all sumps, pumps and piping necessary to interconnect the components. The Mill #2 facility also includes the Plant Spill Pond (PSP) for spill control. Loaded carbon from the two CIC units is hauled to the Mill #2 facilities for processing. Although the bulk of the processing is done on-site, a relatively small amount of carbonaceous ore is shipped off-site for processing at Barrick's Goldstrike Mine. The operations are designed, permitted and operated as zero-discharge facilities. Approximately 1250 workers are employed at the Cortez mine.

Cortez has four cyanide unloading and storage tank areas: (1) Mill Building; (2) Area 28 Leach; and (3) Area 30 Leach and (4) Area 34 Leach which was constructed in 2012. The Mill cyanide storage tank is 15 feet in diameter and 20 feet high; the Area 28 cyanide tank is 12 feet diameter by 20 feet high (out of service); and Area 30 has two cyanide storage tanks each 12 feet by 20 feet and Area 34 has two cyanide storage tanks each 13 feet by 20 feet. The unloading and storage areas are located away from public access and no surface water bodies are nearby. The storage tank areas and the cyanide unload areas are designed and constructed to contain and recover any leakage from the tanks and the tanker trucks.

Cortez receives liquid sodium cyanide in specially engineered tanker trucks from Cyanco located in Winnemucca, Nevada. Sodium cyanide is delivered by TransWood. Both Cyanco and TransWood are signatories to the Code and have been certified as compliant with the Code by third-party auditors.

Cortez stores and manages sodium cyanide in engineered tanks, pipelines and lined ponds that have had appropriate quality control and quality assurance. Cortez workers are trained in cyanide hazards and first aid, first response, emergency response, and specific operational task training. Cortez facilities are fenced to preclude wildlife and livestock from entering cyanide process areas. Cortez conducts daily, weekly, and monthly inspections to ensure that facilities are functioning as designed and to monitor process solutions. Preventive maintenance programs are in place to assure the continuous operations. Cortez has approved closure and reclamation plans along with financial assurance to complete the appropriate management of cyanide solutions and solids, and the decontamination of cyanide pipelines and equipment.


Cortez has a comprehensive environmental monitoring program to evaluate the performance of the ore processing facilities and containments. The monitoring program includes daily monitoring of pond leak collection systems, quarterly sampling and analysis of groundwater and surface water, and quarterly sampling and analysis of tailings supernatant ponds. Wildlife monitoring is conducted per shift by the operators during facility inspections.

Cortez has an emergency response team that is trained to respond to on-site fires, chemical spills, and worker exposures to cyanide. Cortez works with local community emergency services to assure that adequate resources are available to address both off-site and on-site emergencies.

Upgrades to Cortez's cyanide management facilities since the 2013 recertification include:

- Automated titration systems trailed and fully commissioned at the Mill in 2016; with trial runs at Leach Area 34 underway at the time of re-certifications
- Updated cyanide addition point in CIL Tank #1 so that its bottom added to enhance a faster mixing process.

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- Lime line to the Ball Mill such to allow cyanide addition at this location
- Commencement of refurbishing of the 20 year old carbon in leach tanks. Tanks #6 and #8 completed in 2016 with the remaining six tanks to be completed by 2020
- CIC tanks refurbished and re-coated in October 2015
- Expansion of the Phase 4 leach pad
- Completion of the Phase II dam raise and initiation of Phase III raise.

The Cortez operation was found to be in Full Compliance with the International Cyanide Management Code; and this operation has not experienced compliance problems during the previous three-year audit cycle.

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3. SUMMARY AUDIT REPORT

PRINCIPLE 1 - PRODUCTION

Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.


Standard of Practice 1.1: ***Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.***

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

Basis for Audit Finding:

Cyanco, located in Winnemucca, Nevada, has been the cyanide producer and supplier for Cortez for the term of the 2016 Recertification Audit – 2013 through 2016. The contract between Barrick Gold of North America (Barrick), which includes the Cortez operation by reference, and Cyanco was signed in May 2008 and became effective January 1, 2009. The term of the contract was extended in July 2011 to be valid through to March 31 2019. The extension letter states all other terms and conditions in the original contract dated May28 2008 shall be incorporated... The contract states that Cyanco shall comply with ICMC's "Principles and Standards of Practice" during the manufacture, transportation, storage, use, and disposal of the product (cyanide) and the supplier shall only deliver product (cyanide) produced in an ICMI Code certified facility.

Cyanco's Winnemucca Production Plant is a Code certified operation as reported on the ICMI website: originally certified October 3, 2006, recertified in 2010 (recertification audit conducted August 10-12, and 14, 2009), and recertified a second time July 12, 2013 (recertification audit conducted January 14-16, 2013). This facility was recertified again November 22, 2016.

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PRINCIPLE 2 – TRANSPORTATION

Protect communities and the environment during cyanide transport.

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

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

Basis for Audit Finding:

Cyanco's production facility was certified as compliant by the IMCI on October 11, 2006, recertified on February 2, 2010, and recertified on July 12, 2013 and again on November 22, 2016.

Cyanco uses TransWood as the only transporter of cyanide from their production operation to Cortez. TransWood is a signatory to the Code and Code certified TransWood was originally certified in October 11, 2006, recertified in 2010, recertified July 12, 2013, and the ICMI website shows that the TransWood recertification was accepted as of January 12, 2017 and is considered a fully certified transporter..


Standard of Practice 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 with**
 in substantial compliance with **Standard of Practice 2.2**
 not in compliance with

Basis for Audit Finding:

The cyanide supply contract with Cyanco requires Cyanco to comply with the "Principles and Standards of Practice" of the International Cyanide Management Code during the manufacture, transportation, storage, use and disposal of Product (cyanide). Compliance with the Code requires that the supplier and transporter to conform to specific compliance matters set out in the Code's Cyanide Production and Cyanide Transportation Verification Protocols. These Verification Protocols specifically address packing, labeling, storage, transportation routes, unloading and other requirements transportation requirements

The Barrick (Cortez)-Cyanco contract requires that Cyanco, the Seller, to ensure there are written agreement(s) with Subcontractor(s) that clearly designate specific responsibilities for safety, security, release prevention, training and emergency response in transporting and handling cyanide between Cortez and Cyanco.

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The cyanide supply contract between Barrick and Cyanco specifies that Barrick takes ownership of the product at the time the liquid cyanide is delivered into the cyanide storage tank at the mine site. Cortez has Bills of Lading showing that Cyanco and TransWood are the sole suppliers and transporters of the cyanide.

PRINCIPLE 3 - HANDLING AND STORAGE

Protect workers and the environment during cyanide handling and storage.

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

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 3.1**
 not in compliance with

Basis for Audit Finding


Cortez has four cyanide unloading and storage tank areas: Mill Building (Mill); Heap Leach Area 28 (Area 28); Heap Leach Area 30 (Area 30); and Heap Leach Area 34 (Area 34). Area 34 is a new facility since the 2010 Recertification Audit. At the time of the 2016 Recertification Audit, Area 28 remains inactive and the cyanide storage tank had been rinsed and left idled.

Cyanide storage tanks include one 26,400 gallon tank at the Mill; two 15,000 gallon tanks at Area 30; one 18,000 gallon tank at Area 28, and two 20,000 gallon tanks at Area 34. The Mill cyanide storage area concrete containment is measured at less than 110 percent; however, the tank is maintained at the 96 percent level that provides assurance there is 110 percent storage capacity in the secondary containment. The Area 28, Area 30, and Area 34 cyanide storage tank containment areas drain to adjacent barren ponds and are therefore sized appropriately for 110 percent containment.

The facilities for the unload and storage of cyanide have been designed and constructed in accordance with sound and acceptable engineering practices. The design and construction of the cyanide unload and storage facilities including piping have been completed appropriately as documented in final design and construction drawings prepared and stamped by a licensed engineer. The drawings include concrete and reinforcing layout, concrete elevations and section, steel fabrication details, liquid cyanide storage fabrication details, equipment and piping layout and elevations, piping details, and cyanide supply piping to barren strip area and are maintained on site.

Cyanide storage tanks have level indicators and high level alarms that prevent overfilling.

Cyanide storage tanks are located on concrete pads and within concrete curbed containment that prevent

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seepage to the subsurface. Cortez has an inspection and preventative maintenance program for identification and patching of cracks. Inspection records and repair work were reviewed and found to be in order. A recent inspection identified some cracking of the concrete and the repair work was completed once the weather permitted.

The four cyanide unloading and storage tank areas (at the Mill, Area 28, Area 30, and Area 34) are located away from public access and no surface water bodies are nearby.

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.*

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

Basis for Audit Finding:

Cortez and the cyanide supplier have developed SOPs to prevent exposures and releases during cyanide unloading. The procedures cover the responsibilities for the transporter and the Cortez operator. The “Cyanco Sodium Cyanide Delivery” SOP includes detailed information on the operation of valves and couplings during an off-loading procedure.

Cortez’s cyanide offload procedures describes requirements for video monitoring from the Mill control room (or use of a designated person when the video system is not working), continual radio contact, checking the beginning tank levels, referencing the MSDS, and conducting a field level risk assessment prior to commencing work. Requirements for PPE are also listed in the procedure.


Cortez only receives liquid cyanide in tank trucks, and therefore waste management of used packaging or empty drums is not a concern. There are no mixing facilities on-site.

PRINCIPLE 4 – OPERATIONS

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

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

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

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not in compliance with

Basis for Audit Finding:

Cortez has developed a series of SOPs and Operating Plans (described in 4.1.1) that defines the policies, procedures and responsibilities for compliance with the Code, including inspection and preventive maintenance requirements. Plans and SOPs cover the safe operation of the entire cyanide management facilities including detail for the specific task operating procedures. The training manuals are very detailed with pictures of the equipment and computer screens and have formed the basis for task specific standard operating procedures.

Cortez has a Management of Change (MOC) Procedure. The procedure includes minimum standards to ensure changes that potential impact to safety, health, and environment or productivity are identified, assessed, managed, and appropriately communicated to all affected personnel. Prior to a change implementation, notification of the approved change is communicated allowing necessary training.

Cortez conducts inspections on a daily shift and weekly basis. These inspections cover all the cyanide facilities and are sufficient to assure and document that they are functioning within the design parameters. Cortez utilizes a computer based system (Oracle®) for identifying, assigning responsibility, scheduling, and tracking the completion of the preventive maintenance activities. The Oracle® system identifies future activities for regular preventive maintenance and includes information on the task requirements and completion. The preventive maintenance program includes all elements necessary for cyanide safety at Cortez (e.g., HCN monitors, pH probes, cyanide pumps, back-up generators, storage tanks, level indicator alarms, secondary containment cracks and others).

Cortez has prepared process fluid and tailings management plans in conjunction with the applications for Nevada WPCP NEV93109 and NEV 2007106 that were updated as part of the June 2016 permit renewal. Operating strategies to cover normal, emergency and upset operating conditions for the heap leach operations and the tailing facilities are incorporated in the permits and attendant documents.

Cortez has emergency power generators to operate critical functions during power outages for the Mill, Area 28, and Area 34. Operating plans have been developed that include specific instructions on the critical components to be maintained during power outages. Three 1.6 MW diesel generators are located at the Mill Building. Area 34 has three 2500 KW standby generators. The generators are tested monthly and maintained as required. The preventative maintenance schedule and requirements for the generators are tracked through the Oracle® system and include annual oil changes and maintenance.

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:

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Since 2013 Cortez has updated the Mill with automatic titration. This has been in “trial phase” since the beginning of 2015, and was recently initiated at Area 30. Therefore Cortez continues manual titration until such time that full switch to automatic titration is approved. Cortez evaluates cyanide consumption rates, process flow density, pH and solid percentage through the CIL circuit every 4 hours during operation. Cyanide is added in the grind surge tank at a specific target rate to achieve a sodium cyanide value of less than 0.15 pounds NaCN per ton of solution at the tailings outflow from CIL tank #8 (the last tank in the circuit). Differing ore types are evaluated prior to processing, usually at least one year ahead of processing to assess consumption rates. The mill is notified by the Geology Department of upcoming host rock changes to initiate grind recovery and cyanide consumption tests. These tests are column leach tests and 48-hour bottle rolls, where cyanide consumption in pounds per ton (lbs/ton) is calculated along with grind time and size. Cortez targets a cyanide concentration rate of 0.3 to 0.5 pounds per ton ore (lbs/ton) sodium cyanide in the grind surge tank. The daily target fluctuates depending on the actual consumption rate as determined by measurements from the CIL tank #8.

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


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

Basis for Audit Finding:

Cortez has developed a comprehensive water balance for the Plant Site including the Pipeline Tailings Impoundment, Area 28, Area 30 and Area 34 Heap Leach facilities and associated pond network (prepared by RTW, September 2007). The water balances studies are probabilistic models calibrated to actual site conditions and set up to evaluate “what if” scenarios including probabilistic analysis of the precipitation and ore moisture content. 2007The original model was developed in 2015 for the TSF/area 28 with separate models for the heap leach facilities. This was combined into a single model for the entire site in 2016 (Golder Associates).

The Cortez inspection and monitoring programs require daily measurement of water levels in the process ponds. The Area 28 and 34 operations consist of two solution ponds designed with a 2 foot freeboard. Pond solution levels are monitored daily by operating personnel to ensure the pond levels do not exceed specified freeboard limits. Additionally, the solution level is tracked through a telemetry system monitored in the control room at the Mill. Area 30 has three process ponds that are monitored by telemetry at the Mill. In addition, Cortez presents piezometer data for the Tailings Storage Facility in quarterly reports to NDEP. The water balances are updated on an ‘as needed basis’ to support tracking and evaluation of the system to prevent overtopping and discharge.

The Cortez tailings and heap leach facilities are designed and operated with adequate freeboard above the operating levels and contain sufficient design storm containment capacity. The process ponds are operated with a freeboard sufficient capacity to provide for the flows from a 100 year storm and a total power outage. This results in an operational freeboard of 6 to 8 feet in the ponds.

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

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

Basis for Audit Finding:

Cortez has implemented several different measures to restrict access by wildlife and livestock to open solutions containing cyanide. These measures consist of: (1) Perimeter fencing around operation areas; (2) Netting on heap leach solution conveyance ditches; (3) Bird ball floating covers on all process ponds; (4) Eight foot high chain link fencing around the process areas; and (5) Cyanide destruction of the tailing slurry discharge to keep WAD cyanide concentrations below 50 mg/L in the spigot discharge and the decant pond area.

Cortez has open water within the Area 28 tailings impoundment. Cortez's requirements for the tailings supernatant ponds are to maintain WAD cyanide levels below 50 mg/L. Review of the 2014 - 2016 data indicated that the spigot discharge and supernatant reclaim solution are below 50 mg/L.


Cortez's cyanide detoxification practices are effective in preventing wildlife mortality on the open water in the spigot discharge and supernatant pond and there were no mortalities related to cyanide facilities during the recertification period.

The Cortez operation applies leach solutions in a manner designed to prevent ponding, overspray, and runoff. Cortez has changed its spray system to a drip system to reduce ponding in the leach cells. In addition, Cortez has developed SOPs to address potential ponding on the heap leach pads and ramp drainage. The SOP "Ponding on Leach Pad" provides a definition of significant ponding, outlines operational requirements to maintain dripping within the lined area (permitted up to 0.05 gallons per hour), and inspection requirements of ramp for drainage inside and outside the ditched lined facility. Additionally, this SOP includes corrective measures if ponding is discovered. Water bars (to prevent leach solution run off) constructed on haul roads to the heap leach pads were observed during inspections of the heap leach areas during the 2016 Re-certification Audit.

Standard of Practice 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 with**
 in substantial compliance with **Standard of Practice 4.5**
 not in compliance with

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Cortez does not have any indirect discharge of cyanide solutions to surface waters. Cortez operates with zero discharge of process solutions. Cortez conducts monitoring of the seepage collection systems and leak detection systems to evaluate the integrity of these systems.

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

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

Basis for Audit Finding:

Cortez has implemented solution management and seepage control systems to protect groundwater below and down gradient of the operation. There are also groundwater monitoring wells surrounding the ponds which are reviewed on a quarterly basis and reports sent to the regulatory Agency. The review of monitoring data for 2014-2016 indicates Cortez has not caused cyanide concentrations in groundwater to rise above levels protective of beneficial use.

The cyanide facilities are designed for zero discharge to both surface water and groundwater in accordance with NDEP regulations and Department of Interior Bureau of Land Management (BLM) Cyanide Management Policy and have all been constructed with impermeable containment systems or liners to prevent seepage.


All pipes, tanks, and other facilities at the Mill which convey process fluids containing cyanide are located within containment areas. Sumps within containment areas collect any spilled solution for return to the process.

The tailings impoundment is a fully lined facility with a liner system comprising of smooth, 60-mil HDPE synthetic primary liner placed over a minimum of 24 inches of clayey, second liner material.

Area 28 heap leach facility has a liner system consisting of a 60-mil HDPE synthetic primary liner placed over a 12-inch thick low hydraulic conductivity soil layer secondary liner. This Area has not been used as a Heap Leach facility during the recertification period and is considered inactive.

The Area 30 heap leach facility is constructed of either 60-mil or 80-mil HDPE liner placed over 12-inch thick low hydraulic conductivity soil layer (the 60-mil HDPE liner is used where the heap leach stacking height will not exceed 150 feet; and the 80-mil liner is used where the heap leach stacking height is approved for 300 feet.)

Area 34 Heap leach pads are constructed with a composite liner system comprised of a single layer of 80-mil double-textured HDPE geomembrane placed on a 12-inch thick Low Hydraulic Conductivity Soil Layer (LHCSL).

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Process components are equipped with leak detection systems. Leak detection systems are monitored on a regular basis.

Review of the Cortez environmental monitoring data (2014-2016 Quarterly Reports for WPCP NEV93109) indicates that the operation had either no detectable WAD cyanide (i.e. <0.01 mg/L) or very low concentrations (i.e. less than 0.05 mg/L).

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


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

Basis for Audit Finding

Cortez has spill prevention and control systems for the cyanide offload areas, the associated storage tanks, and CIL and CIC tank process areas. Area 30, Area 28, Mill, and Area 34 offloading pads are constructed of cast-in-place reinforced concrete with curbed containments that report to sumps for return to the process. The Mill cyanide storage tank secondary containment system consists of concrete walls, approximately 7 feet high. The Area 28 cyanide tank is within a secondary curbed concrete containment with tertiary containment being the lined Reclaim Pond. Area 30 has two cyanide storage tanks that are located on a concrete curb and a drainage channel is provided to the barren pond for tertiary containment. The CIL/CIC/DETOX tank process areas have containment areas constructed of reinforced concrete. Area 34 has two cyanide storage tanks located in a reinforced concrete containment area with a drainage channel that allows for any excessive spillage (spillage exceeding the capacity of the sump pump) to flow through the process building to the barren pond. Cortez has automated pumps with level controls within the containments to pump collected solutions into the process circuits

Cortez has constructed all pipelines with spill prevention and containment measures to collect leaks and prevent releases. The pipelines are constructed either as pipe-in-pipe configuration and/or within lined ditches. The Mill uses a CIL circuit for primary gold extraction; and two CIC circuits are used for recovery of gold from clarified overflow solution and heap leach pregnant solution. All pipes, tanks, and other features in the Mill area which convey process fluids containing chemical reagents are located within containment areas. Sumps within containment areas collect any spilled solution for return to the circuit(s).

Tailings slurry is transported in a 14-inch diameter HDPE pipe. The pipe is placed between two earth berms, lined with HDPE, in a sloping roadway to the tailing impoundment. In the event of a tailings line failure, slurry is contained between the berms and flow is towards the tailing facility. The reclaim lines from the Area 28 Reclaim Pond to the Mill are also in doubled wall pipe or a containment system. Area 28 and Area 30 heap leach pad piping is either double walled HDPE pipe or is contained by lined system.

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Area 34 pregnant solutions (within the heap leach pad) are collected in a series of perforated and non-perforated pipes that discharge to a main collection header located in a lined pipeline channel at the down gradient edge of the pad. The main collection header collects pregnant solution and directs it to the process area.

Cortez uses steel and, HDPE pipelines, and HDPE lined steel which are compatible materials for the conveyance of high pH, cyanide solutions and slurries.

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.*

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


Basis for Audit Finding:

Cortez has implemented and conducted QC/QA programs for construction of all cyanide facilities including the cyanide storage facilities, pipelines, conveyance ditches, process ponds, heap leach facilities and tailings impoundment facilities. QC/QA programs have been implemented for all new cyanide facilities and modifications made to existing facilities since the Initial Certification Audit and subsequent Re-certification Audits.

Cortez has implemented QC/QA programs for all earthworks projects related to tank foundations; compacted subgrades; clay liners; geomembrane liners; and ponds, tailings and heap leach facilities. These QC/QA reports include information on subgrade preparation, grading, soil liner material properties and compaction characteristics, soil liner hydraulic conductivity, leak detection construction, solution collection piping, geomembrane liner seams and testing. The construction documentation includes copies of the field inspection reports, laboratory and field data, construction observations, drawings, and photographs.

As with previous reviews of new construction documentation, review of the construction documentation during the 2016 Re-certification Audit showed that the new construction addresses the suitability of materials and adequacy of soil compaction for earthworks for tank foundations and earthen liners, the installation of synthetic membrane liners used in ponds and leach pads, and for construction of cyanide storage and process tanks.

Cortez has retained qualified engineering personnel to review and provide construction verification documentation. The QC/QA reports are stamped by Professional Engineers licensed in the State of Nevada. The QC/QA documents have also been reviewed and approved the NDEP.

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Standard of Practice 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 with**
 in substantial compliance with **Standard of Practice 4.9**
 not in compliance with

Basis for Audit Finding

Cortez has written procedures entitled “Barrick Cortez Inc. Sampling and Monitoring Plan” prepared by Barrick Cortez Inc., Environmental Department. This plan specifies the standard operating procedures for process solution and groundwater including sample preservation requirements. Locations of sampling sites and sample parameter lists including cyanide species are also specified. Chain of Custody procedures and shipping instructions are included.

Cortez provides training to inspect for, watch for, and prevent wildlife mortality to all employees with an annual refresher. Each employee is responsible for filing a report should they encounter wildlife mortality. In addition, wildlife mortality inspections are conducted weekly by the Environmental Department.

Cortez conducts monitoring at frequencies adequate to characterize the groundwater, seepage collection systems, leak detection systems, wildlife, and process solutions. Groundwater samples are collected and analyzed on a quarterly basis. The seepage collection systems are sampled on a quarterly basis. The leak detection systems are pumped on a weekly basis and reported as a daily average. The wildlife monitoring is continuous while employees are outside on the property. Process solutions are monitored at least daily and in many cases several times per day


PRINCIPLE 5 – DECOMMISSIONING

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

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

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

Basis for Audit Finding:

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The operation is in substantial compliance with **Standard of Practice 6.1**
 not in compliance with

Basis for Audit Finding:

Cortez has procedures, Standard Operating Procedures (SOPs) and critical task procedures that describe the management and operation of the cyanide facilities. These plans and procedures cover the safe operation of the entire cyanide management facilities and cover decontamination prior to maintenance work. These procedures are detailed in the evidence observed section. The documents describe Personal Protective Equipment (PPE) requirements, operator responsibilities, and procedures for using and handling cyanide and have been updated regularly.

Safety Critical Tasks are defined by a flow chart decision making process which includes a trigger such as the exposure to potentially toxic chemicals such as cyanide. Through this process all tasks that would potentially involve cyanide exposure would have a safety critical task procedure developed. Examples include maintenance activities such as pump replacements, repairing pumps or valves associated with the cyanide system and inspections of cyanide containment areas.

Procedures to review proposed process and operational changes and modification for their potential impact on work health and safety are controlled under Barrick's Corporate online Management of Change (MoC) procedure. The Corporate procedure was adopted at Cortez in 2011.

Worker input is actively considered during the development and roll out of new procedures.


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.*

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 6.2**
 not in compliance with

Basis for Audit Finding:

The 'Managing Cyanide Levels and pH in Solution' procedure states that all process solutions contain cyanide and that 'We need to maintain a pH over 10 and under 11.5'. The SOP details that pH can be maintained by adding lime predominantly at belt 3, although it can also be added at the mill surge tank, grind thickener, CIL tanks, No. 2 thickener and detox reactor tank.

Fixed HCN monitors are installed in critical locations: the detox building, the elutions area, the carbon in column (CIC) area and the grind circuit. Fixed monitors have also been installed in identical locations in each of the Area 30 and Area 34 Heap Leach buildings on the ground floor and then on floors 2 through 4. All are identical models (ITEX). The Electrical and Instrumentation department undertake monthly

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calibration of the fixed monitors.

Warning signs have been placed in all areas where cyanide may be encountered, including offloading areas, and process tanks, and on all cyanide facilities warning that the tanks and pipes may contain cyanide solutions.

Showers and eyewash stations are located at the cyanide off-loading areas and throughout the process areas (in Area 30, 34 and the Mill). The showers and eye wash stations are inspected before every shift and before every off load. They are also inspected monthly as part of the preventative maintenance program and a record of the inspections are maintained.

Material Safety Data Sheets are available throughout the plant at any computer terminal via the site-wide. Poster boards are also posted around the workplace where cyanide is used including alarm levels, first aid, symptoms, locations of kits, cyanide storage facility locations. pH requirements in place to prevent off gassing.


The fixed monitors have warning lights at 4.7 ppm and a visible light and evacuation horn. These are alarmed in the central control room in the Mill, and at the controls rooms in Areas 30 and 34. The Area 30 and 34 alarms are also connected to the CCR as these areas may not consistently have an operator on duty. At a 4.7 ppm alarm the area is evacuated except for the Operator on duty that will investigate the alarm; at 10 ppm a full evacuation is initiated. Based on interviews with the Operators in the mill and Areas 30 and 34 there have been no alarms over 4.7 ppm in the last three years.

Bi-annual surveys were completed between 2014-2016. These included operators wearing badges for a 12 hour shift and recording any alarms above 4.7 ppm that occur. Both day and night shifts participate in the survey. No alarms above 4.7 were detected during the bi-annual surveys conducted in in 2014, 2015, and 2016.

Cortez also maintains handheld (MX-6 Multi-Gas monitors and Industrial Scientific GasBadge Pro monitors). These HCN monitors are used when conducting specific activities where the risk of exposure may be higher, such as during a confined space entry procedure. Employees are able to sign out the gas badges as needed.

Cortez has procedures for accident and incident investigations associated with cyanide. These procedures include actions to determine the reason why the accident/incident occurred, and identify the corrective actions and/or controls to take to prevent similar occurrences in the future. There were no cyanide related incidents that required investigation in the previous three years.

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

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 6.3**
 not in compliance with

Basis for Audit Finding:

First aid procedures for cyanide poisoning along with general health and safety information on cyanide are presented on posters located in areas where cyanide is present. Additionally self-contained breathing apparatus are held by the Emergency Response team in the event of alarms above 10.0 ppm. Cyanokits are stored in at locations around site where cyanide is present (Control #2 ambulance, Control #3 ambulance, laboratory complex, process mill control room, and Area 34 process and Area 30 Lunch room). Oxygen is also stored with kits.

First Responders are trained to use and know the location of the equipment and Cyanokits. The ‘Off-loading Cyanide’ procedure requires the driver of the cyanide transportation truck to report to the gate (Control #2) and pick-up a radio before proceeding to the off-load site. Additionally, video cameras are placed at each of the off-load sites allowing the Mill 2 Control Room to monitor off-load operations. When the cameras are not working a Mill 2 representative is required to be physically present during the entire off-load.

The Cyanokits, oxygen and emergency response vehicles are currently checked on a monthly basis by the Emergency Response team. The Cyanokits have a breakaway tag on them, as well as monthly inspection cards. Tags are punched during monthly inspections.


Other relevant monthly inspections conducted by Cortez include the AED, first aid rooms and emergency response vehicle which are inspected monthly by the emergency response team. Records of these inspections between 2014 and 2016 were randomly selected for review and appeared complete.

The Emergency Response Plan and relevant pre-plans detail specific written emergency response plans to respond to cyanide exposures.

Cortez has formal arrangements with Northeastern Nevada Regional Hospital through a commitment letter. The letter states that the hospital emergency department will readily receive and treat cyanide exposed patients. It also acknowledges that they keep in stock two cyanide poisoning kit with information and instruction material. The letter has been re-authorized in 2014, 2015 and 2016 to ensure currency of this acknowledgement.

Mock emergency drills are conducted annual to test response procedures for various cyanide exposure scenarios and debriefs are conducted following the drills to review the adequacy of these plans.

PRINCIPLE 7 - EMERGENCY RESPONSE

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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.*

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 7.1**
 not in compliance with


Basis for Audit Finding:

The emergency response plan details immediate actions to be taken in the event of an emergency spill which details cyanide separately. The emergency response plans include the anticipated roles and responsibilities of the Human Resources, Safety and Health, Environment, Security and other emergency response team (ERT) members as well as an updated list of the members of the ERT,

Additionally, the site has developed a cyanide release response pre-plan which is a comprehensive listing of all the potential types of emergencies related to cyanide, different levels of cyanide exposure and response requirements. The pre-plans are considered a supplement to the overall emergency response plan that is applicable for all emergencies across the site.

The Solid and Hazardous Waste Management Plan outlines the emergency procedures required for any situation involved hazardous waste, or the generation of hazardous waste such as the release of cyanide. It outlines emergency procedures as well as managing cyanide waste according to MSDS instructions, ensuring separation from acidic wastes and water. Preferred disposal of cyanide wastes is through the heap leach facilities to recycle the cyanide.

Plans contain procedures for potential scenarios such as: 1) catastrophic releases of cyanide; 2) accidents during cyanide transportation; 3) releases during offloading; 4) release of cyanide during fires and explosions; 5) pipe, valve or tank ruptures; 6) overtopping of ponds and impoundments; 7) power failure; 8) uncontrolled seepage; 9) tailings impoundment failure; 10) cyanide spill control and clean-up; and 11) decontamination and emergency evacuation.

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

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 7.2**
 not in compliance with

Basis for Audit Finding:

Cortez workers attend meetings of the Lander County Local Emergency Planning Committee (LEPC). Through participation on the LEPC these workers have been able to inform the community that Cortez uses cyanide at the operation and that it has prepared an ERP to address emergency situations. Cortez has submitted the ERP to the LEPC for their use and reference.

Cortez workers participate in emergency mock drills that allow them to experience and comment on the procedures developed in the ERP. Where possible Cortez has attempted to involve LEPC in their mock drills (in the past three years scheduling issues have prevented this).

Cortez has notified the Northeast Nevada Regional Hospital, in Elko in writing that the mine operation uses cyanide and there is the potential for cyanide exposed victims. The hospital has acknowledged that the emergency room staff does know the proper procedure for treating cyanide poisoning.


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

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

Basis for Audit Finding:

Roles and responsibilities are clearly laid out in the ERP including responsibilities of the following departments: Human Resources, Safety and Health, Environment, and Security. These stakeholders, as well as representatives from processing are part of the review team for the ERP when revisions are made. Emergency responders are trained in Advanced Medical First Aid, HazMat and Firefighting and receive annual refresher training.

The ERP details call out procedures and 24 hour contact information for coordinators and team

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members

Emergency response equipment, including Personal Protection Equipment, available on-site is detailed in the Emergency Response Equipment Needs section, this is sub divided into medical response, fire response, surface operations, fire equipment, high angle response, hazardous materials response equipment and underground operations.

The HAZMAT trailer, emergency response vehicle and the five Cyanokits are inspected monthly or quarterly to check all materials are available. This process is done by the emergency response team.

The ERP Assisting Agency Phone List includes contact numbers for Ambulance service, Clinic, Hospitals, Government agencies, MSHA, Nevada Division of Safety, Health and Training, Fire services, and Law enforcement.

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

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

Basis for Audit Finding:

The ERP Assisting Agency Phone List includes contact numbers for Ambulance service, Clinic, Hospitals, Government agencies, MSHA, Nevada Division of Safety, Health and Training, Fire services, and Law enforcement.


The basic command structure outlined in the ERP includes identification of a public information officer who acts as the media spokesperson. It is the Incident Commander's responsibility to determine when and how to issue information to the media.

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.*

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

Basis for Audit Finding:

The ERP Immediate Actions section titled 'In the event of a Chemical Spill' and the "Sodium Cyanide

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Release or Exposure” sections of the ERP details that a solution of sodium hypochlorite (which should have a pH value of at least 8 but should not exceed a pH value of 10.5) should be available for use in decontamination procedures. Soft brushes should be available to remove contamination from PPE. Labelled, durable polyethylene bags should be available for disposal of contaminated PPE. The plan details in each Immediate Action scenario that the person in charge of the incident should coordinate reporting and clean-up activity with the Environmental Department.

The Solid and Hazardous Waste Management Plan details procedures for any accidents involving hazardous waste spills. The plan is designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.

There are no natural surface water bodies on the property or adjacent to the property and treatment of a cyanide release to surface waters is not applicable

If cyanide or process solution is spilled Cortez would follow their Incident Reporting and Investigation processes; including ‘confirmatory’ sampling when required.

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

The operation is	<input checked="" type="checkbox"/>	in full compliance with	
	<input type="checkbox"/>	in substantial compliance with	Standard of Practice 7.6
	<input type="checkbox"/>	not in compliance with	

Basis for Audit Finding:


The Emergency Response Department, in cooperation with process management, review and update the ERP on a regular basis and it has been reviewed at least annually since 2011. The most recent full review of the plan occurred in August 2015. The 2016 review has been completed and was awaiting final approval of the changes during the audit.

The most recent physical mock drills occurred in 2016 involved an incident during delivery where a person was medically affected. In 2015 the mock drill was related to a cyanide exposure due to a terrorist related incident. The 2014 Hazmat drill included training on the Cyanokit. Corrective actions from drills were tracked in spreadsheets.

PRINCIPLE 8 – TRAINING

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

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

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

Basis for Audit Finding:

All site personnel are trained in cyanide safety as part of Cortez's four day New Hire Training which includes a PowerPoint presentation called Cyanide Training. Cortez requires all workers to have an annual refresher training (ART) that includes cyanide training

Workers who are assigned to specific areas of operations where cyanide is an integral part of the process (i.e. all mill employees, leach pad operators etc.) are given 20 hours 'onboarding' training which includes the safe use and handling of cyanide with on the job departmental training. For example, mill workers are trained for a job, including instruction related to cyanide use and handling, before beginning work in the designated area. Detailed training manuals exist for operation in detox, grind CIL and elutions. The manuals are detailed and have clear instructions with pictures and annotations.

In addition, the visitor and contractor inductions required before any person can access the site, includes a component on cyanide awareness.

In 2010, Cortez began using an online Learning Management System (LMS) which is a database tool to record and track training and has a searchable functionality. The LMS continues to be used. In addition to print out from the LMS outlining completed training, a review of the LMS was conducted during the audit by requesting certain employees training records and then backtracking through the system to ensure that annual requirements were met. The LMS proved effective in tracking these records.


Standard of Practice 8.2: *Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.*

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 8.2**
 not in compliance with

Basis for Audit Finding:

Workers assigned to specific areas where cyanide is an integral part of the operation, such as unloading, processing, and maintenance activities, are trained on the safe use and handling of cyanide.

Following the new hire training and job departmental training, the primary training method is on-the-job training and is provided by a competent person. The employee is instructed on the proper use of the equipment and related safety issues. The level of competency is tracked via the progression policy,

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which requires certain competencies to advance to the next level. There are progression booklets that are required to be completed by the Supervisor and then uploaded into the LMS.

Cortez requires all workers to have an annual refresher training (ART) that includes cyanide training. All training record sheets have been maintained with the applicable information and maintained in hard copy since at least 2010 and in soft copy within the LMS.

Standard of Practice 8.3: *Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.*

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 8.3**
 not in compliance with

Basis for Audit Finding


Workers involved in the use and handling of cyanide, such as unloading, mill operations, and maintenance, are trained on the risks and proper handling techniques including decontamination and first aid procedures. The training uses process training manuals and SOPs and includes instruction on decontamination and first aid procedures for cyanide release incidents. Mill workers receive annual cyanide refresher training that demonstrates procedures to follow in the event of cyanide release. First aid and CPR and oxygen training is provided to any Cortez employee that requests it and on a voluntary basis. This is a continuous process and includes Mill employees.

Cortez has provided a copy of the Emergency Response Plan to the Lander County LEPC. Additionally, Cortez has formal arrangements with the Northeast Nevada Regional Hospital to provide assistance in the event of a cyanide related incident.

Since 2010 Cortez Process department has a monthly work order to conduct mock drills. The form 'Cyanide Emergency Mock Drill' details the drill date, location, overview, participants, and objectives, it has a check list of all items covered in the drill, such as emergency call, checking wind direction, first aid details, the form requires a list of corrective actions needed to improve awareness and emergency readiness. In addition periodic (annual) mock drills on a larger scale are undertaken which include cyanide related incident.

Emergency Response Coordinators and members of the ERT (First Responders) are trained on the procedures and guidelines outlined in the ERP such as the response to a cyanide spill, release, or emergency. Training also includes the use of the, SCBA, and other PPE necessary to respond to a cyanide emergency. In addition there are Advanced EMTs on each shift that are able to administer the Cyanokit.

The site also holds annual mock emergency which cover both worker exposure and environmental releases. The drills are evaluated to review the adequacy of these plans and a training perspective to determine if personnel have the knowledge and skills required for effective response and training procedures are updated where needed. Documentation of the debriefs are retained on site. . The records of completed training are maintained in the LMS database.

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PRINCIPLE 9 – DIALOGUE

Engage in public consultation and disclosure.

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

The operation is **in full compliance with**
 in substantial compliance with **Standard of Practice 9.1**
 not in compliance with

Basis for Audit Finding:

Members of Cortez’s management participate in periodic Town of Crescent Valley and Pine Valley community meetings and also attend Local Emergency Planning Committee (LEPC) meetings. They and workers attend civic activities where they interact with the general public and public officials. Based on the minutes of the meetings that were reviewed cyanide was not a specific topic of discussion, as there were no members that have brought this issue up as a concern.

Landowners and local tribes do have the ability to participate in any of the public tours that are offered. . In the past three years a variety of groups had received tours, including the Nevada Mining Association, Elementary Schools, and Government bodies.

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


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

Basis for Audit Finding:

Community Relations assists with scheduling site tours. Numerous visits to Cortez by a variety of entities have occurred in the past three years including the Nevada Mining Association, Elementary Schools, and Government bodies.

Visitor information includes an explanation about the Cyanide Code and requires a cyanide training induction prior to participating in a tour. These visits present visitors with the opportunity to ask questions about the use of cyanide; and provide the company with the opportunity to explain the use of cyanide at the operation

Information on use of cyanide at the Barrick sites is included in the Annual Barrick Responsibility Report.

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

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

Basis for Audit Finding:

Any incident requiring regulatory reporting as per the Solid and Hazardous Waste Management Plan or the ERP would become publicly available through freedom of information processes. In addition, any such incidents would be discussed during the quarterly meetings with the local landowners and tribes. The Cortez Water Pollution Control Permit (WPCP) and accompanying Fact Sheet that describes the use and management of cyanide at the site are public documents that are available from Cortez or from the Nevada Department of Environmental protection (NDEP). Also, WPCP Quarterly Monitoring Reports are available to the public. These documents outline Cortez's use of cyanide.

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