May 2016

ICMC INITIAL CERTIFICATION
SUMMARY AUDIT REPORT

Noche Buena Mine
Sonora, México

Submitted to:
International Cyanide Management Institute (ICMI)
1400 I Street NW, Suite 550
Washington, DC  20005
United States of America

And

Minera Penmont S de R.L. de C.V.
Callejon Sin Nombre 209 Oeste Entre Ave. N y P
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H. Caborca, Sonora
México

Project Number: 1535030

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ICMI – One PDF and One Hard Copy
Noche Buena – One PDF and One Word File
Golder Associates Inc. – One PDF
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1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

Name of Mine: Noche Buena Gold Mine
Name of Mine Owner: Fresnillo Plc
Name of Mine Operator: Minera Penmont S de R.L. de C. V.
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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Mine Location

The Noche Buena Mine (Noche Buena) is located in the Altar desert approximately 65 kilometers (km) northeast of the city of Caborca and 90 km southeast of the city of Puerto Peñasco. The mine is approximately 45 km from the coast of the Gulf of California in the state of Sonora, Mexico (Figure 1). The elevation is approximately 250 meters above mean seal level. The local topography is gently sloping to flat, with ephemeral watercourses and typical Sonoran desert vegetation consisting of cactus, palo verde trees, ironwood trees, and various shrubs. The climate is hot and dry with approximately 200 to 250 millimeters (mm) of average annual rainfall, temperatures ranging from approximately 0 to 45 degrees centigrade, and an annual average evaporation rate of approximately 2,700 mm.

![Figure 1: Location Map](image)

2.2 Background

Noche Buena is operated by Minera Penmont S de R.L. de C.V. (Penmont) as a subsidiary of Fresnillo plc. Fresnillo is the 100 percent owner. Exploration began in 2009 and construction began in 2011. The mine has been operational since January 2013. The mine produces primarily gold but also some silver. The average ore grade is approximately 0.45 gold grams per ton and the third quarter 2015 gold...
production was 38,353 ounces. Approximately 400 employees and an equal number of contractors worked at Noche Buena at the time of the site visit.

Noche Buena is an open pit mine. Facilities consist of waste rock stockpiles, a heap leach pad, process ponds, a Merrill-Crowe plant, and various support facilities. The heap leach pad is designed for six phases. Five phases were built at the time of the site visit and four phases were operating; Phase 1 was inactive. Run-of-mine ore is placed on the heap leach pad for leaching via drip emitters after adding lime to each truckload. There are four ponds: pregnant pond, intermediate pond, and two contingency ponds.

Noche Buena receives solid cyanide via isotankers with flobins stored in a warehouse as a backup supply. There is an offload facility for the isotankers as well as an adjacent flobin mixing facility. Five tanks are used for receiving, mixing, and distributing the reagent-grade cyanide: dissolution (for isotankers), dilution, preparation (for flobins), storage, and dosification.

The Merrill-Crowe plant (Figure 2) consists of a clarification cone, clarifiers, deoxygenation towers, a zinc cone, filter presses, and a sedimentation pond (for clarifier wash water). A refinery is also located onsite.

Figure 2: Process Flow Diagram (supplied by Noche Buena)
ICMC INITIAL CERTIFICATION SUMMARY AUDIT REPORT

SUMMARY AUDIT REPORT
Auditors Findings

☐ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

The International Cyanide Management Code

Noche Buena is:

Audit Company: Golder Associates
Audit Team Leader: Kent R. Johnejack, Lead Auditor and Mining Technical Specialist
Email: kjohnejack@golder.com

Name of Other Auditors

<table>
<thead>
<tr>
<th>Name, Position</th>
<th>Signature</th>
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</thead>
<tbody>
<tr>
<td>Ivon Aguinaga, Gold Mining Technical Specialist</td>
<td></td>
</tr>
<tr>
<td>Rick Frechette, Independent Auditor</td>
<td></td>
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Golder was involved in design and construction quality assurance for the heap leach pad at Noche Buena, which included preparation of a water balance. Golder also prepared a closure plan for Noche Buena. Therefore, Golder subcontracted to Mr. Rick Frechette, Knight Piesold Inc., as an independent auditor, to address Standards of Practice 4.1.2, 4.3, 4.8, 5.1, and 5.2 where a conflict of interest exists. Mr. Frechette visited the site on December 8 and 9, 2015 as part of his independent evaluation.

Dates of Audit
The site visit for the Initial Certification Audit was undertaken over 4 days between December 7 and December 10, 2015.

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 Cyanide Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

Noche Buena Mine
Name of Facility

Signature of Lead Auditor

May 11, 2016
Date

Noche Buena Mine
Name of Facility

Signature of Lead Auditor

May 11, 2016
Date

Golder Associates

May 2016
Project No. 1535030
PRINCIPLE 1 – PRODUCTION

Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that Operate in a Safe and Environmentally Protective Manner

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

☒ in full compliance with
☐ in substantial compliance with ☐ not in compliance with

Noche Buena is in substantial compliance with Standard of Practice 1.1

Summarize the basis for this finding:

The operation is in FULL COMPLIANCE with Standard of Practice 1.1, requiring the operation 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.

Noche Buena purchases cyanide from Chemours Company Mexicana (Chemours) a subsidiary of The Chemours Company (formerly E.I. DuPont de Nemours and Company), who manufactures it at their plant in Memphis, Tennessee. The contract was resigned in 2015 when Chemours was formally created. Clause 13 of the contract between Minera Penmont S. de R.L. de C.V. and Chemours requires Chemours to be a signatory to the Code and to comply with the certification requirements under the Code. The Memphis Plant and associated packaging facility were most recently recertified as being compliant with the Code on April 30, 2013. Noche Buena has purchased cyanide only from Chemours in the 3 months preceding the site visit. The auditors reviewed purchase orders, shipping confirmations, and invoices to verify compliance.
PRINCIPLE 2 – TRANSPORTATION
Protect Communities and the Environment during Cyanide Transport

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

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with ☐ not in compliance with

Standard of Practice 2.1

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 2.1, requiring that the operation establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

Noche Buena purchases cyanide from Chemours (formerly DuPont) who manufactures it at their plant in Memphis, Tennessee. According to Clause 8b of the contract between Minera Penmont and Chemours, ownership and responsibility for the cyanide pass from Chemours to Noche Buena at the time the cyanide is offloaded at the mine. Clause 13 of the contract states that all of Chemours transportation personnel, distributors, and contract carriers must comply with Code requirements. Noche Buena is in full compliance because the entire Chemours supply chain from their plant in Tennessee, through Mexico, and to the mine has been certified. The auditors reviewed the various supply chain audit reports on the ICMI website to confirm compliance.

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

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with ☐ not in compliance with

Standard of Practice 2.2

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 2.2, requiring that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

Noche Buena purchases cyanide from Chemours (formerly DuPont), who manufactures it at their plant in Memphis, Tennessee. Clause 13 of the contract states that all of Chemours transportation personnel, distributors, and contract carriers must comply with Code requirements. The entire Chemours supply
chain from their plant in Tennessee, through Mexico, and to the mine has been certified. The auditors reviewed the various supply chain audit reports on the ICMI website to confirm compliance. The auditors also reviewed purchase orders, shipping confirmations, and invoices to verify compliance.
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.

☑️ in full compliance with

Noche Buena is
☐ in substantial compliance with
☐ not in compliance with

Standard of Practice 3.1

Summarize the basis for this finding:

The operation is in FULL COMPLIANCE with Handling and Storage Practice 3.1, requiring that cyanide handling and storage facilities are designed and constructed consistent with sound, accepted engineering practices, quality assurance/quality control (QA/QC) procedures, spill prevention and spill containment measures.

Noche Buena receives solid cyanide via isotankers and flobins. Isotankers are directly offloaded into a series of five reagent-grade tanks. The flobins are a backup supply in case of interruption in the isotanker deliveries. Flobins are stored in a warehouse adjacent to the reagent grade tanks. These facilities were designed by Servicios Industriales Peñoles S.A. de C.V., Engineering and Construction for Mines (SACMAG) in 2011. SACMAG is the in-house engineering and construction management group for all Peñoles mines. The facility was constructed in 2011. Noche Buena contracted with SEI Tetra S.A. de C.V. to provide construction quality assurance (CQA) services for the cyanide warehouse and Merrill Crowe Plant, including the offloading and mixing facilities. The CQA program included inspection and testing of welding, soil compaction, and concrete testing. The finished construction was approved by the Noche Buena project manager, who has a degree in chemical engineering with a cedula (professional registration in Mexico). The auditors reviewed the design drawings, CQA reports, and professional registrations to verify compliance.

In addition, a representative from Chemours (formerly DuPont) inspected both the isotanker offloading facility and the backup flobin mixing facility in 2012 and issued letters stating no objections to their use. The same representative also observed the first offloading at the isotanker facility to ensure it functioned properly.

Both the isotanker and flobin systems are located away from people and surface waters. These systems are located within the area of the Merrill-Crowe Plant, but away from offices and areas where people may
congregate. The nearest village (Ejido Juan Alvarez) is located approximately 20 km to the northwest. The potential for release to surface water is negligible because of the extreme aridity of the Sonoran Desert and the lack of any perennial surface water.

Isotankers are unloaded on a concrete ramp that allows for leakage to be recovered in a grated concrete channel bounded by raised hump at both ends of the ramp. The flobins are transferred from the delivery truck to the warehouse on this same ramp. The auditors observed the concrete ramp to be in good condition.

Noche Buena has installed level sensors in the five reagent-grade cyanide tanks to prevent overfilling. The barren tank is also equipped with a level sensor. All levels sensors report to the control room. While visiting the control room in the Merrill-Crowe plant, the auditors observed that all level sensors were functioning. Noche Buena also provided a spreadsheet tracking sensor maintenance for the 3-month period before the site visit.

Cyanide tanks are located on concrete floors and concrete tank bases within concrete secondary containment that prevent seepage to the subsurface and are a competent barrier to leakage. The four large reagent-grade tanks are located within a single secondary containment that has a sump with a float-operated pump that reports to the barren tank. The fifth smaller dosification tank with reagent-grade cyanide is located in a separate secondary containment with a small sump emptied by a manually-operated pump that reports to the secondary containment for the four larger reagent-grade tanks. The remaining areas of the plant are equipped with a system of grated concrete ditches that ultimately report to the pregnant pond. The auditors observed the concrete secondary containments to be in good condition.

Noche Buena stores cyanide, whether in the reagent-grade tanks or the flobins inside the warehouse, with adequate ventilation and security, protected from water, and separately from incompatible materials such as acids, strong oxidizers, and explosives, as well as apart from foods, feeds, and tobacco products.

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

☑ in full compliance with

Noche Buena is

☐ in substantial compliance with

☐ not in compliance with

**Standard of Practice 3.2**

**Summarize the basis for this finding:**
The operation is in FULL COMPLIANCE with Handling & Storage Practice 3.2 requiring that cyanide handling and storage facilities are operated using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

Noche Buena receives solid cyanide via isotankers and flobins. The flobins are a backup supply in case of interruption in the isotanker deliveries. The operation does operate unloading, storage, and mixing facilities to prevent or control releases and worker exposures.

Noche Buena has developed and implemented an isotanker offload procedure (Preparation of Liquid Cyanide). The procedure describes operation of the dissolution tank, pumps, and valves, including the minimum pH (10.5) and the maximum level to start the offload (65 percent). The auditors observed the connections process and initial part of an isotanker offload during the site visit to confirm that the Segutal driver and the Noche Buena observer wore the required personal protective equipment (PPE) and followed the written procedure. The auditors also reviewed examples of the isotanker offload checklists from approximately the last 3 months to verify compliance.

Noche Buena has developed and implemented two procedures related to the backup flobins: for transfer from the delivery truck to the warehouse (Cyanide Unloading, Management, and Storage) and for flobin mixing (Preparation of Cyanide). The auditors inspected the cyanide warehouse to confirm that flobins were properly stored and stacked only two layers high, as specified in the procedure. The flobin mixing procedure describes the manipulation of the flobin and the operation of the preparation tank, valves, and pumps. It also specifies the required PPE and observation of the mixing event. The minimum pH is specified as 11.0 and the maximum level in the dissolution tank to start the offload is specified at 60 percent.

The auditors did not have an opportunity to observe the transfer of flobins from the delivery truck to the warehouse because the last time Noche Buena received flobins was February 2015. Similarly, the auditors did not have an opportunity to observe a flobin mixing event because such mixing occurred sporadically in 2015. However, the auditors reviewed the checklists for these transfer and mixing events to verify compliance.
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 including contingency planning and inspection and preventative maintenance procedures.

☒ in full compliance with

Noche Buena is ☐ in substantial compliance with ☐ not in compliance with Standard of Practice 4.1

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 4.1, requiring that the operation implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

The cyanide facilities at Noche Buena (i.e., those with WAD cyanide greater than 0.5 ppm) are:

- Heap leach pad, consisting of five phases
- Process ponds
  - Pregnant pond
  - Intermediate pond
  - Two contingency ponds
- Reagent-grade cyanide system
  - Primary reagent cyanide system, including an isotanker offloading facility with a dissolution tank and a dilution tank
  - Backup reagent cyanide system including a cyanide storage warehouse for flobins and a cyanide preparation tank and a storage tank
  - A dosification tank that feeds the cyanide addition points at the barren tank and the zinc cone
- Merrill Crowe plant, including a Hopper vessel, clarifiers, barren tank, in-line pump boxes, zinc cone, deoxygenation towers, filter wash tank, sedimentation cells, and filter presses
- Associated pipelines, pumps, valves, and appurtenances
- Diversion channel around the northern and eastern perimeter of the pad

Noche Buena operates under three high-level management systems relevant to cyanide and/or environmental management with the goal of preventing or controlling releases to the environment and exposures to the workers and communities: ISO-14001 Environmental Management Certification; OHSAS 18001:2007 Health and Safety Management Certification; and the Manual for the Health, Safety,
Environment and Community Relations System (or SS MARC by its acronym in Spanish). To implement these high-level programs, Noche Buena developed the following detailed plans and programs identifying assumptions, parameters, and regulatory requirements: a MAXIMO database for managing maintenance; program for environmental monitoring; emergency response plan; design reports and drawings; and a set of standard operating procedures.

Noche Buena has prepared a written procedure for management of change that applies to physical and operational changes. The procedure is accompanied by a form for sign-off by the initiator of the requested change and the environmental/safety manager. Noche Buena staff stated that there have been no changes requiring use of the procedure since the start of operations in January 2013.

Noche Buena has developed and implemented five procedures that address upset conditions and contingencies. These procedures address general preparation and response to emergencies; contingency pond emergencies; slope failure; pipeline breaks; spill from secondary containment; stopping and starting the plant; immediate spill response; and spill cleanup.

Noche Buena has developed a written procedure to govern inspections. The procedure is accompanied by five forms to document the inspections. Noche Buena inspects the cyanide facilities at frequencies that vary from daily to monthly, as well as per event. Wildlife inspections take place daily at the plant, pad, and ponds. These frequencies are adequate to assure and document that equipment and facilities are functioning as intended.

Noche Buena inspects the unloading, storage, mixing, and process areas and documents those inspections with forms. Tanks, secondary containments, pipelines, pumps, sumps, valves, and leak detection systems are inspected by process staff on a daily to weekly basis. Noche Buena conducted a first round of tank integrity testing in 2015 and the cyanide tanks and vessels were found suitable for their intended use.

Noche Buena documents inspections, including the date of the inspection, the name of the inspector, items inspected, observations, and corrective actions. Corrective actions are tracked via the MAXIMO software for maintenance. The auditors reviewed examples of completed inspection forms to verify compliance.

Noche Buena has implemented a maintenance program via the MAXIMO software that includes both proactive (programmed) maintenance and reactive (corrective) maintenance. Noche Buena classifies maintenance based on the potential for harm or contamination using a four-tier system; maintenance of cyanide equipment receives the highest priority tier. The auditors reviewed four examples of maintenance
histories for cyanide pumps to verify compliance. The auditors also observed a spreadsheet of spare parts available in the warehouse and schematics showing the locations of installed standby pumps.

Noche Buena has calculated that the power requirement to run the existing pumps at the process ponds is 1389 kilowatts. Connections to portable generators could be made in less than 4 hours. Noche Buena has made provision for four-500 kilowatt portable generators to be mobilized to the site in less than 24 hours from a vendor in Hermosillo, Sonora. The auditors consider that these preparations and this response time are adequate.

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

- in full compliance with

Noche Buena is
- in substantial compliance with
- not in compliance with **Standard of Practice 4.2**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.2, requiring that the operation limit the use of cyanide to that optimal for economic recovery of gold so that the waste tailings material has as low a cyanide concentration as practical.

Standard of Practice 4.2 is inapplicable because Noche Buena does not have a mill or tailings storage facility.

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

- in full compliance with

Noche Buena is
- in substantial compliance with
- not in compliance with **Standard of Practice 4.3**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.3, requiring the operation to implement a comprehensive water management program to protect against unintentional releases.

**Knight Piésold Review**

The existing water balance and operational monitoring practices address climate, operational modifications, and provide for maintaining adequate freeboard. The water balance can be considered to be comprehensive and probabilistic. The water balance considers leaching application rates, a design storm event, site-specific climate data, diversion of upgradient run-on, adequate pond sizing, an estimate
of backup pumping requirements for contingency events and provisions for acquiring backup power should the need occur. Monitoring is provided to track pond levels and assess freeboard maintenance.

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

☑ in full compliance with

**Noche Buena is**

☐ in substantial compliance with  
☐ not in compliance with  

**Standard of Practice 4.4**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.4, requiring the operation implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

To restrict wildlife and livestock access, Noche Buena has installed fences around the ponds and plant, floating covers on the pregnant and intermediate ponds, and netting over the collection points for leach solution along the pad perimeter. In addition, pregnant and barren solutions are transported between the pad, plant, and ponds in pipes rather than open channels. Noche Buena provided analytical data for the several months preceding the site visit that showed WAD cyanide concentrations were well less than 50 mg/L in the ponds with the potential for bird or wildlife access. Based on their daily inspections, Noche Buena staff stated that they did not experience any wildlife mortality in the several months preceding the site visit. Noche Buena has implemented written procedures for leaching to prevent over application and leaks, as well as for corrective action if ponding occurs. The auditors did not observe any ponding on the leach pad during the site visit. The use of drip irrigation at the leach pad eliminates the potential for overspray.

**Standard of Practice 4.5:** Implement measures to protect fish and wildlife from direct or indirect discharges of cyanide process solutions to surface water.

☑ in full compliance with

**Noche Buena is**

☐ in substantial compliance with  
☐ not in compliance with  

**Standard of Practice 4.5**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.5, requiring the operation implement measures to protect fish and wildlife from direct or indirect discharges of cyanide process solutions to surface water.

Standard of Practice 4.5 is inapplicable because there is no surface water in the vicinity of the mine.
Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

☑️ in full compliance with

Noche Buena is □ in substantial compliance with ☐ not in compliance with Standard of Practice 4.6

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 4.6, requiring the operation implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

Noche Buena has implemented measures at the cyanide facilities to protect groundwater. These measures include geomembrane lining under the entire leach pad with leak detection and collection around the perimeter of the leach pad; geomembrane lining with leak detection and collection for the pregnant and intermediate ponds; geomembrane lining for the two contingency ponds; pipelines within geomembrane lined channel between the pad and ponds; concrete lining under the plant, including the mixing and storage area; concrete lined sedimentation cells; and a concrete lined secondary containment channel between the plant and the pregnant pond.

The beneficial use of the groundwater is industrial in the vicinity of the mine. Rather than comparing groundwater sampling results to a standard, and as required by the Environmental Impact Statement for the project, Noche Buena compares pre-mining results to the semi-annual sampling results in six monitoring wells to evaluate whether there has been a potential release to groundwater. Four wells are upgradient of the plant, ponds, and pad; two wells are downgradient. Noche Buena provided a spreadsheet of semi-annual sampling results from these six wells that showed groundwater quality is unchanged from pre-mining conditions with no detection of total cyanide.

Noche Buena does not have a mill or underground workings, and therefore mill tailings are not used as backfill. Groundwater has not been affected to date and remedial action is unnecessary.

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

☑️ in full compliance with

Noche Buena is □ in substantial compliance with ☐ not in compliance with Standard of Practice 4.7

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 4.7 requiring that the operation provide spill prevention or containment measures for process tanks and pipelines.

Noche Buena has provided secondary containments for the cyanide related tanks; there are no cyanide-related tanks without secondary containment. The four-reagent grade tanks are within a single concrete-walled containment. The small dosification tank is within its own concrete-curbed containment. Secondary containment for the remainder of the plant consists of a series of grated-concrete channels that ultimately report to the pregnant pond. All cyanide-related tanks were installed on a concrete ring beam with a concrete cap as an impermeable barrier to leakage. The auditors reviewed a calculation package to verify that each secondary containment has capacity in excess of 110 percent of the volume of the largest tank with the containment.

The secondary containments for the four reagent-grade tanks and the dosification tank, respectively, report to sumps with dedicated pumps to return solutions to the process circuit. The grated concrete channels ultimately report to the pregnant pond. All solutions within containment, whether precipitation or process related, are returned to the process circuit and no written procedures are needed for these transfers.

All cyanide-related pipelines have been installed within geomembrane-lined channels, over concrete floors, inside overhead trays, or within the pad footprint to provide secondary containment. Special protection measures for pipelines in the vicinity of surface water are inapplicable, as there is no surface water due to the extreme aridity in the Sonoran desert.

The auditors did not observe any tank or pipeline materials incompatible with cyanide or high pH.

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

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 4.8

☐ not in compliance with

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.8 requiring that operations implement QA/QC procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.
Noche Buena has implemented CQA programs that confirm cyanide facilities were constructed properly. Golder, via its affiliate in Mexico (Geomex), has been involved in certain types, but not all types, of the CQA for the cyanide facilities at Noche Buena. Golder provided earthwork, liner, and piping CQA services for Phases 1 to 5 of the heap leach pad, as well as for the pregnant pond, intermediate pond, and the two contingency ponds. Consequently, Golder subcontracted to third party (i.e., Mr. Rick Frechette, PE, of Knight Piesold) to review CQA programs where a conflict of interest exists. However, no conflict exists for Golder to review the CQA evidence for the Merrill Crowe Plant.

**Golder Review**

The auditors reviewed the documentation for plant construction in 2011 to confirm the existence, and proper content, of a CQA program. The program consisted of welding testing (non-destructive and liquid penetration) for the reagent-grade cyanide tanks. The program also included borrow source testing, compaction testing, and concrete testing. The auditors also reviewed the documentation for the pumps and large diameter piping at the initial contingency pond. The program consisted of welding testing (non-destructive and liquid penetration).

The auditors verified compliance of qualified review via the turnover form for the Merrill Crowe plant that was signed by the Noche Buena project manager and the head of the Peñoles engineering and construction division. The Noche Buena project manager is a degreed chemical engineer with a cedula (equivalent of professional registration in Mexico) issued in 1989.

**Knight Piesold Review**

CQA documents exist and are maintained on site to demonstrate the heap leach pad and ponds have been constructed to meet the required standards. These contain evidence of addressing materials suitability, compaction testing, and liner installation CQA relative to the leach pads and ponds. These documents have been certified by qualified parties.

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

- ☑ in full compliance with

Noche Buena is

- □ in substantial compliance with
- □ not in compliance with

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 4.9 requiring that operations implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.
Noche Buena has implemented written procedures for groundwater and wildlife monitoring; surface water monitoring is inapplicable given the extreme aridity at the site. The monitoring is conducted at frequencies appropriate to each medium.

Noche Buena monitors groundwater downgradient and upgradient of the cyanide facilities at a 6-month frequency. The groundwater monitoring procedures were prepared by a commercial laboratory certified by the Mexican government. The laboratory also provides a qualified geologist to conduct the field sampling. The written procedures cover well purging, instrument calibration, containerization, preservation, chain-of-custody, transport, and the list of constituents. Conditions at the time of sampling are documented in the field forms. The auditors verified compliance by reviewing the monitoring procedure, certifications, field forms, chain of custody, and laboratory data for the most recent sampling event in November 2015.

Noche Buena monitors for wildlife mortalities daily at the pad, ponds, and plant in accordance with a written procedure. Inspections are documented on field forms. The auditors reviewed examples of completed forms from the 4 months before the site visit to verify compliance.
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.

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with Standard of Practice 5.1
☐ not in compliance with

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 5.1 requiring that the site plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

Knight Piesold Review
Noche Buena commissioned the preparation of a mine-wide conceptual closure plan in early 2016. The plan addresses the appropriate cyanide facilities and decommissioning activities in sufficient detail, presents an implementation schedule and provides for review and updating of the plan at least every 5 years or when there are major changes to the cyanide facilities.

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

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with Standard of Practice 5.2
☐ not in compliance with

Summarise the basis for this finding:
The operation is in FULL COMPLIANCE with the Standard of Practice 5.2 requiring that the site establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

Knight Piesold Review
Noche Buena’s selected financial assurance mechanism involves self-funding and an independent qualified financial auditor has provided an affirmative review of the financial capability to meet the need defined by the closure cost estimate. The established capability is many times greater than the estimated cost to decommission just the remaining cyanide facilities in closure. The plan provides for an update, including cost estimate, at least every 5 years.
PRINCIPLE 6 – WORKER SAFETY
Protect Workers’ Health and Safety from Exposure to Cyanide

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

☑ in full compliance with

Noche Buena is □ in substantial compliance with Standard of Practice 6.1
☐ not in compliance with

Summarize the basis for this finding:

The site is in FULL COMPLIANCE with Standard of Practice 6.1 requiring that the site identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

Noche Buena has developed operating procedures that describe the management and operation of the cyanide facilities. These procedures cover the safe operation of the entire cyanide management. The procedures have been developed for the cyanide unloading, storage and mixing facilities; the Merrill Crowe plant, the heap leach pad, the pregnant pond, the intermediate pond, and the two contingency ponds. The procedures have been and will be updated, as needed, to reflect changes in procedures and new cyanide facilities.

Noche Buena has implemented pre-work inspections prior to a cyanide offload event and a cyanide mixing event. Pre-work inspections include verification of valves, safety showers and eyewashes, cyanide kit, mixing tank levels, pH, hydrogen cyanide gas (HCN) values, and others. In addition, inspections include cyanide tanks, pipes, valves, pumps, secondary containments, safety devices (e.g. safety showers, eyewash stations, cyanide kits and fire extinguishers), heap leach pad, and ponds, wildlife, and cover the cyanide unloading, mixing and storage areas, the Merrill Crowe plant, the process ponds and leach pad areas.

Noche Buena has developed and implemented written procedures to be used when a facility or operational/process change/modification is proposed. The procedure considers the involvement of process, environmental and safety personnel in the assessment of the proposed changes. The procedure applies to the areas where workers may encounter cyanide and covers environmental and safety aspects. The procedure is accompanied by an evaluation form that must be signed by the initiator of the requested change and the environmental/safety manager. Noche Buena personnel stated that there have been no changes requiring use of the procedure since the start of operations in January 2013. The auditors, therefore, reviewed the written procedure and the form that accompanies this procedure and interview process and environmental/safety personnel to verify compliance.
Noche Buena conducts task observations and monthly refresher training to provide information and training to employees as well as to solicit input from employees on worker safety issues. Input from employees is also solicited during the preparation and annual review process of the operating procedures. The auditors reviewed task observation forms, records of refresher training, operating procedures to verify compliance.

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

☑ in full compliance with

**Noche Buena is**

☐ in substantial compliance with

☐ not in compliance with

**Standard of Practice 6.2**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 6.2 requiring that the site operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

Noche Buena monitors and maintains the appropriate pH to prevent the formation of HCN as recommended in the operating procedures. Fixed HCN monitors are installed in areas of potential exposure to cyanide (two in the cyanide preparation tank area, one in cyanide dissolution tank, one in the clarifier area, one in the barren tank, one in the zinc cone and one in the cyanide warehouse). In addition, operators use portable HCN meters to conduct maintenance work and other cyanide tasks. HCN sensors are set to alarm at 4.7 parts per million (ppm) and 10 ppm. HCN monitors are maintained, calibrated and inspected as recommended by the manufacturer. Warning signs are posted in areas where cyanide is used to alert workers that cyanide is present and that smoking, eating and drinking are not allowed. Pipes carrying cyanide are marked and the direction of flow is indicated with arrows on the pipe.

Showers, low-pressure eye washes, and dry powder fire extinguishers are located at strategic locations throughout the operation and are maintained, inspected and tested on a regular basis. Safety showers and eyewashes were operational. Material Data Safety Sheets (MSDSs) and first aid procedures for cyanide are located in the cyanide warehouse, cyanide isotanker offloading observation room (where the cyanide antidote kit is also located) and the control room. Noche Buena has also placed signs at different points of the process areas describing first aid procedures related to cyanide including the administration of the amyl nitrite. The instructions are in Spanish, the language of the workforce.
Noche Buena investigates all incidents in accordance with a written procedure. Noche Buena staff stated that no cyanide exposure incidents have occurred since the operations have started. In lieu of cyanide exposure incidents, the auditors reviewed an example of completed incident investigation for a 2015 non-cyanide related incident to verify that the investigation procedure has been implemented.

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

☑ in full compliance with

Noche Buena is
☑ in substantial compliance with
☐ not in compliance with

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 6.3 which requires that the site develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

Noche Buena provides the necessary equipment for response to cyanide exposure and the communication means to coordinate their use. Noche Buena provides water via the eyewashes and showers located throughout the process plant including the cyanide unloading, mixing and storage areas. Noche Buena also has cyanide antidote kits (including amyl nitrite, sodium thiosulfate and sodium nitrite), oxygen, radio, and telephone at the Merrill Crowe plant and the medical clinic. Cyanide kits and oxygen are located in the isotanker offloading observation room, the laboratory and the medical clinic. Automated external defibrillators (AEDs) are also available on site. The auditors confirmed that all antidote kits are stored at the correct temperature and that the antidotes have not expired. First aid equipment is inspected regularly. Verification was by visual examination and review of inspection records.

Noche Buena has developed written procedures that address response measures for HCN releases during cyanide spills. In addition, Noche Buena has developed a leaflet on how to recognize and treat cyanide poisoning. Procedures and the leaflet describe cyanide first aid including amyl nitrite and oxygen administration, emergency transportation, recovery, decontamination, emergency communication and evacuation, reporting requirements and others. The auditors reviewed the emergency response procedures and leaflet to verify compliance.

Noche Buena has its own onsite capability (equipment and trained staff) to provide first aid assistance to workers exposed to cyanide. Noche Buena has an on-site medical clinic that is staffed with a physician and paramedics. Paramedics are qualified to provide medical/ emergency assistance. Noche Buena has also emergency responders and staff trained as first aid technicians, strategically placed in different...
operational areas. Every shift has emergency responders as well as first aid technicians trained to administer amyl nitrite and oxygen. Noche Buena has developed procedures to transport workers exposed to cyanide to locally available qualified off-site medical facilities for further treatment, if needed. Noche Buena has made formalized arrangements with a local hospital, the San Jose Hospital, in Caborca. Noche Buena conducts cyanide exposure mock drills and tests the relevant emergency procedures on a regular basis. Lessons learned from the drills are incorporated into its response planning.
PRINCIPLE 7 – EMERGENCY RESPONSE
Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities

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

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with  ☑ Standard of Practice 7.1
☐ not in compliance with

Summarize the basis for this finding:

The operation is in FULL COMPLIANCE with Standard of Practice 7.1 which requires that the site prepare detailed emergency response plans for potential cyanide releases.

The operation is in full compliance with Standard of Practice 7.1. Noche Buena has developed plans and procedures that address emergency response to potential accidental releases of cyanide. Noche Buena plans and procedures contain measures for potential scenarios such as: 1) cyanide intoxication; 2) accidents during cyanide transportation; 3) releases during unloading and mixing; 4) release of cyanide during fires and explosions; 5) pipe, valve or tank ruptures; 6) overtopping of ponds; 7) electrical power outages and pump failures; 8) uncontrolled seepage; 9) failure of the heap leach facility; 10) cyanide spill control and clean-up; and 11) decontamination and emergency evacuation.

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

☑ in full compliance with

Noche Buena is ☐ in substantial compliance with  ☑ Standard of Practice 7.2
☐ not in compliance with

Summarize the basis for this finding:

The operation is in FULL COMPLIANCE with Standard of Practice 7.2 which requires that the site involve site personnel and stakeholders in the planning process.

Noche Buena solicits the input of its workforce and external response entities in the emergency response planning through meetings, training sessions and mock drills.

Worker input in developing and evaluating health and safety procedures is via direct communication between supervisors and operators as well as during monthly refresher training and the annual review.
process of operating procedures. In addition, process personnel and emergency responders have participated in the cyanide related mock drills conducted in 2015.

Noche Buena has its own onsite capabilities to respond to cyanide emergencies (onsite medical clinic staffed with a doctor and paramedics; onsite ambulance and fire truck; and emergency responders trained in hazmat, firefighting, cyanide first aid and others). A local hospital, the San Jose Hospital would provide additional cyanide medical treatment to the one that can be provided by the onsite doctor in case of a cyanide exposure emergency. Other local agencies such the Red Cross, Civil Protection and the Caborca Fire Department would only provide support in case of site evacuation as necessary.

Noche Buena has made formalized arrangements with a local hospital, the San Jose Hospital, in Caborca. Auditors reviewed a copy of the January 2014 letter sent by the hospital to Noche Buena. The purpose of the letter was to inform Noche Buena that the hospital staff are qualified to treat cyanide exposure patient, and that the hospital has the adequate medical equipment for cyanide intoxication treatment.

Noche Buena (via Chemours) has provided training in Safe Cyanide Management and Cyanide First Aid on February 2014 to representatives of all local response agencies including the Caborca Red Cross, Fire Department, Civil Protection, the San Jose Hospital and others. The December 2015 mock drills included the participation of the Caborca Red Cross, Fire Department, and Civil Protection. In addition, Noche Buena provided training in cyanide management and first aid to the representatives of the Caborca Red Cross, Fire Department, and Civil Protection in December 2015.

The federal agency for the environment and natural resources (i.e., the Secretaria de Medio Ambiente y Recursos Naturales [SEMARNAT]) also reviewed and approved the Noche Buena Accident Prevention Program. The auditors reviewed the SEMARNAT Resolution approving the Noche Buena Accident Prevention Program (dated April 11, 2014) to verify compliance.

The closest community (a village named Ejido El Diamante) is located approximately 28 km downgradient of the mine site in a different groundwater basin and could not be affected from a cyanide release from the site. However, Noche Buena has developed a community program that covers interaction via meetings with 20 communities in the area. In addition, Noche Buena organizes site tours on a regular basis including tour to the process areas. During meetings with the communities and the site tours, information about cyanide is provided. (e.g., a leaflet on how to recognize and treat 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 Standard of Practice 7.3 which requires that the site designate appropriate personnel and commit necessary equipment and resources for emergency response.

Noche Buena has committed in their emergency response procedures and plans the necessary emergency response equipment and first aid to manage most cyanide incidents at the operation and to coordinate transportation to a local medical facility for further treatment. The Accident Prevention Program document defines the primary and alternative emergency responders including their responsibilities and level of authority in case of an emergency.

Noche Buena has identified its emergency response team and has an updated list of the team members (e.g., emergency coordinators, paramedics, brigade members and first aid technicians) including their name, shift and 24-hour contact information.

Noche Buena has emergency responders and doctors onsite to respond to a cyanide emergency. Emergency responders are trained in firefighting, Hazmat, collapsed structures and cyanide first aid. All emergency equipment is inspected on a regular basis. The emergency response procedures and plans (i.e., the Accident Prevention Program) describes the role of outside responders and provide their contact information.

Noche Buena has confirmed that outside entities included in the emergency response procedures are aware of their involvement and are included as a necessary in mock drills.

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

- **in full compliance with**
- **in substantial compliance with**
- **not in compliance with**

Noche Buena is

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 7.4 which requires that the site develop procedures for internal and external emergency notification and reporting.
The Noche Buena emergency response plans and procedures (such as the Manual of the Executive Contingency Plan, the Procedure PS-HE-07 Emergency Preparation and Response, and the Contingency Plan PS-HE-07-A01) detail the procedures including current contact telephone numbers for internal (i.e., Noche Buena management, emergency response coordinators and responders, and others) and external emergency notification (i.e. local hospitals, regulatory agencies, communities and the media).

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

☑ in full compliance with

Noche Buena is
☐ in substantial compliance with Standard of Practice 7.5
☐ not in compliance with

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 7.5 which requires that the site incorporate in response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

Noche Buena has prepared cyanide response and remediation procedures for potential cyanide releases. The procedures include measures to recovery and neutralize liquid and solid cyanide and manage contaminated soils. The procedures describe what final cyanide concentration will be allowed in residual soil as evidence that the release has been appropriately cleaned up. Soil samples would be taken following clean up to confirm complete removal of all cyanide contaminated materials. The procedures also include sampling methodologies to monitor soils and groundwater in the event of a cyanide spill including cyanide species.

Noche Buena does not consider the use of chemicals to treat cyanide that has been released into surface waters. There are no water bodies in the area near Noche Buena. The area is extremely arid.

Water supply wells are located downgradient from the cyanide facilities but within a different groundwater basin. The closest community (a village named Ejido El Diamante) is located approximately 28 km from the mine site in a different groundwater basin. Therefore, there is negligible risk that the water supply and the Ejido El Diamante would be adversely impacted in case of a cyanide release from the cyanide facilities. Noche Buena uses bottled water for drinking water supply.

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

☑ in full compliance with
Noche Buena is  □ in substantial compliance with Standard of Practice 7.6
□ not in compliance with

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 7.6, which requires that the site periodically evaluate response procedures and capabilities and revise them as needed.

Noche Buena evaluates and updates its emergency response procedures annually, following mock drills and actual incidents as needed. Noche Buena conducts cyanide related mock drills based on likely cyanide release/exposure scenarios to test the response procedure, and incorporates lessons learned from the drills into its response planning. Mock drills are conducted on a regular basis. The auditors reviewed the revision section (that lists the revision dates) in the emergency response procedures and the review tracking spreadsheet to confirm that these procedures have been reviewed and revised as needed. The auditors also reviewed the mock drill reports and supporting documentation (including training records) to verify that the action items identified by the mock drills were completed.
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.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Noche Buena is

Standard of Practice 8.1

Summarize the basis for this finding:

The operation is in FULL COMPLIANCE with Standard of Practice 8.1 which requires that the site train workers to understand the hazards associated with cyanide use.

Noche Buena provides initial training and refresher training to all employees and contractors with the potential to be exposed to cyanide on cyanide hazard awareness. The training is provided as part of the new hire training under the Cyanide Use and Management session. The Cyanide Use and Management training material covers cyanide characteristics, HCN formation, effect of pH on HCN/cyanide ratio, sodium cyanide transportation, cyanide spills, exposure sources and symptoms, limits, decontamination procedures, cyanide intoxication first aid procedures, PPE, emergency contact information, and amyl nitrate administration. In addition to this general training, all employees working in process areas are required to undergo task specific training related to cyanide. Task specific training includes operating procedures as well as emergency response for cyanide exposure and spill clean-up procedures. Refresher training is provided on a regular basis.

Noche Buena retains all cyanide training records including test results demonstrating an understanding of the training. Verification was by interview with process and training personnel, interviews with operators, review of employee training materials, and review of records.

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

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Noche Buena is

Standard of Practice 8.2

Summarize the basis for this finding:
The operation is in FULL COMPLIANCE with Standard of Practice 8.2 which requires that the site train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

All personnel in job positions that involve the use of cyanide and cyanide management (including unloading, mixing, production and maintenance) receive training on how to perform their assigned tasks with minimum risk to worker health and safety. Individual training is provided for each specific task an operator will perform related to cyanide management. Task specific procedure training is provided prior to working with cyanide independently. Training elements for specific jobs are identified in the task training matrix developed for each process area. This matrix lists the operating procedures to be covered as part of the task specific training for each employee, for each process area. In addition, operating procedures include the purpose of the procedure, required PPE, safety considerations and the individual task specific steps.

All task-specific training is conducted by individuals that have several years working in the process area. Noche Buena requires and provides refresher training in Cyanide Use and Management (every 2 years) and task specific procedures on a regular basis (through monthly refresher, observations and biannual formal refresher training) to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Noche Buena requires written tests to evaluate the effectiveness of cyanide training and those training records are retained throughout an individual's employment, documenting the training received. The records include the name of the employee and the trainer, the date of training; the topics covered, and test results demonstrating an understanding of the training materials.

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

☑ in full compliance with

Noche Buena is

☐ in substantial compliance with

☐ not in compliance with

**Standard of Practice 8.3**

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 8.3 which requires that the site train appropriate workers and personnel to respond to exposures and environmental releases of cyanide.

Personnel responsible for cyanide unloading, mixing, production, and maintenance, as well as emergency coordinators and emergency responders, are trained in procedures to be followed if cyanide is released, as well as in decontamination and first aid procedures. This training is provided through the annual
cyanide use and management refresher training, the task specific refresher training and the annual training program for the emergency responders. This last training also includes the use of response equipment. Emergency responders and process employees participated in mock drills on likely cyanide release/exposure scenarios.

Noche Buena has made local response agencies and communities familiar with those elements of its cyanide emergency response procedures related to cyanide through training sessions, meetings and mock drills. Verification was by document review and interviews.

Noche Buena conducted three mock drills based on likely release/exposure scenarios in 2015. Drills were evaluated from a training perspective to determine if personnel have knowledge and skills required for effective response. The auditors reviewed the mock drill reports and supporting documentation (including training records) to verify that the action items identified for the mock drills were completed.

Training records are retained and include the name of the employee and the trainer, the date of training; the topics covered, and test results demonstrating an understanding of the training materials. Verification was through interview with training personnel and review of training records.
**PRINCIPLE 9 – DIALOGUE**

**Engage in Public Consultation and Disclosure**

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<th>Standard of Practice 9.1: Provide stakeholders the opportunity to communicate issues of concern.</th>
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**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 9.1 which requires that the site Provide stakeholders the opportunity to communicate issues of concern.

Noche Buena has an open door policy that allows the opportunity for stakeholders to communicate issues of concerns through community meetings, direct contact, tours of the mine, training, mock drills and regulatory approval reviews. Minera Penmont, the parent company of Noche Buena, has an office in the local city of Caborca which is used for community meetings and may be visited by stakeholders seeking more information about Noche Buena. In addition, the Fresnillo website has contact information and information about the use of cyanide at the mine site. Noche Buena has developed a community program that covers interaction via meetings with 20 communities in the area.

Organized tours of the mine site take place each month and a variety of people including worker’s families, students, and other stakeholders attended. During meetings with the communities and the site tours, information on cyanide management is provided. External response agencies (e.g. Caborca Red Cross, Fire Department, and Civil Protection) have participated in the mock drills and have received training in cyanide management and first aid response through the mine site.

Verification was by interview with the Community Relations Assessor. The auditors also reviewed records for meetings, mock drills, and training and the Fresnillo website accessed at [http://www.fresnilloplc.com/our-responsibility/environment/environmental-case-study/](http://www.fresnilloplc.com/our-responsibility/environment/environmental-case-study/)

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<thead>
<tr>
<th>Standard of Practice 9.2: Initiate dialogue describing cyanide management procedures and responsively address identified concerns.</th>
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**Summarize the basis for this finding:**

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Noche Buena Mine  
Name of Facility

May 2016  
Project No. 1535030

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Signature of Lead Auditor  
May 11, 2016  
Date

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Golder Associates
The operation is in FULL COMPLIANCE with Standard of Practice 9.2 which requires that the site initiate dialogue describing cyanide management procedures and actively address identified concerns.

Noche Buena has provided opportunities for stakeholder input on cyanide management via public meetings, tours to the mine site, training and mock drills. Noche Buena has developed a community program that covers interaction via meetings with 20 communities in the area. During meetings with the communities and the site tours, information about cyanide (e.g., the leaflet on how to recognize and treat cyanide poisoning) is provided. Site tours include the tour of the process areas where the cyanide is used. During these visits, visitors receive a cyanide induction training that covers cyanide management.

Noche Buena has provided training in cyanide management and first aid for intoxication procedures to external regulatory agencies on December 2015 and February 2014. Minera Penmont has an office in the local city of Caborca which is used for community meetings and may be visited by stakeholders seeking more information about Noche Buena. In addition, the following Fresnillo website has contact information and information about the use of cyanide at the site: [http://www.fresnilloplc.com/our-responsibility/environment/environmental-case-study/](http://www.fresnilloplc.com/our-responsibility/environment/environmental-case-study/).

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

- [X] in full compliance with
- [ ] in substantial compliance with
- [ ] not in compliance with

**Noche Buena is**

- [X] in full compliance with Standard of Practice 9.3
- [ ] in substantial compliance with
- [ ] not in compliance with

**Summarize the basis for this finding:**

The operation is in FULL COMPLIANCE with Standard of Practice 9.3 which requires that the site make appropriate operational and environmental information regarding cyanide available to stakeholders.

Noche Buena disseminates information regarding cyanide management in written and oral form. Written materials include PowerPoint presentations on corporate website, articles in magazines, documents to regulatory agencies, leaflets and others. Noche Buena also disseminates information orally during meetings with communities and tours of the process facilities, notwithstanding that the majority of the population is literate (i.e., approximately 93.5 percent of the people are literate).

Noche Buena is required to report cyanide-related hospitalizations and fatalities to the federal social security agency (i.e., Instituto Mexicano del Seguro Social [IMSS]) and the federal labor agency (i.e., Secretaria del Trabajo y Prevision Social [STPS]). These federal agencies would make the information available to the public. A cyanide spill event would be reported to the federal environmental enforcement...
agency (i.e., Procuraduría Federal de Protección al Ambiente [PROFEPA]) within 3 days of the event. No cyanide-related hospitalizations, fatalities, or cyanide-related spills occurred in the year preceding the site visit.
Report Signature Page

GOLDER ASSOCIATES INC.

Kent R. Johnejack
ICMI Lead Auditor and Mining Technical Specialist

Date: May 11, 2016

Ivon Aguinaga
Mining Technical Specialist

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Established in 1960, Golder Associates is a global, employee-owned organization that helps clients find sustainable solutions to the challenges of finite resources, energy and water supply and management, waste management, urbanization, and climate change. We provide a wide range of independent consulting, design, and construction services in our specialist areas of earth, environment, and energy. By building strong relationships and meeting the needs of clients, our people have created one of the most trusted professional services organizations in the world.