TABLE OF CONTENTS

0.0 General ................................................................................................................................................................. 1

1.0 Production .............................................................................................................................................................. 10
   Standard of Practice 1.1 ............................................................................................................................................... 10

2.0 Transportation ......................................................................................................................................................... 12
   Standard of Practice 2.1 ............................................................................................................................................... 12
   Standard of Practice 2.2 ............................................................................................................................................... 13

3.0 Handling and Storage .............................................................................................................................................. 14
   Standard of Practice 3.1 ............................................................................................................................................... 14
   Standard of Practice 3.2 ............................................................................................................................................... 15

4.0 Operations ................................................................................................................................................................ 17
   Standard of Practice 4.1 ............................................................................................................................................... 17
   Standard of Practice 4.2 ............................................................................................................................................... 19
   Standard of Practice 4.3 ............................................................................................................................................... 19
   Standard of Practice 4.4 ............................................................................................................................................... 21
   Standard of Practice 4.5 ............................................................................................................................................... 22
   Standard of Practice 4.6 ............................................................................................................................................... 23
   Standard of Practice 4.7 ............................................................................................................................................... 24
   Standard of Practice 4.8 ............................................................................................................................................... 25
   Standard of Practice 4.9 ............................................................................................................................................... 27

5.0 Decommissioning ....................................................................................................................................................... 29
   Standard of Practice 5.1 ............................................................................................................................................... 29
   Standard of Practice 5.2 ............................................................................................................................................... 30

6.0 Worker Safety ............................................................................................................................................................ 32
   Standard of Practice 6.1 ............................................................................................................................................... 32
   Standard of Practice 6.2 ............................................................................................................................................... 33
   Standard of Practice 6.3 ............................................................................................................................................... 35

7.0 Emergency Response ................................................................................................................................................... 37
   Standard of Practice 7.1 ............................................................................................................................................... 37
   Standard of Practice 7.2 ............................................................................................................................................... 38
   Standard of Practice 7.3 ............................................................................................................................................... 39
   Standard of Practice 7.4 ............................................................................................................................................... 40
   Standard of Practice 7.5 ............................................................................................................................................... 41
   Standard of Practice 7.6 ............................................................................................................................................... 42

0.6 Summary of ICMC Principles and Standards of Practice ....................................................................................... 8
8.0 Training .......................................................................................................................................................... 44
   Standard of Practice 8.1 ............................................................................................................................... 44
   Standard of Practice 8.2 ............................................................................................................................... 45
   Standard of Practice 8.3 ............................................................................................................................... 46
9.0 Dialogue ......................................................................................................................................................... 48
   Standard of Practice 9.1 ............................................................................................................................... 48
   Standard of Practice 9.2 ............................................................................................................................... 49
   Standard of Practice 9.3 ............................................................................................................................... 49
10.0 References .................................................................................................................................................... 52

LIST OF TABLES
Table 1 Summary of ICMC Principles and Standards of Practice for Gold Mining Operations

LIST OF FIGURES
Figure 1 Location Map

UNITS OF MEASURE AND ABBREVIATIONS
BLM Bureau of Land Management, El Centro Resource Area
Cal/ARP California Accidental Release Prevention Program
CERCLA Comprehensive Environmental Response Compensation and Liability Act
CFR Code of Federal Regulations
Chemours The Chemours Company
CIC Carbon-in-column
Code International Cyanide Management Code (the Code)
CUPA Certified Unified Program Agency
Cyanco Cyanco Company, LLC
DuPont E.I. DuPont De Nemours and Company, Inc.
EPA U.S. Environmental Protection Agency
ERP Emergency Response Plan
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>gpm</td>
<td>Gallons per minute</td>
</tr>
<tr>
<td>H:V</td>
<td>Horizontal to vertical (ratio)</td>
</tr>
<tr>
<td>HCN</td>
<td>Hydrogen cyanide</td>
</tr>
<tr>
<td>HDPE</td>
<td>High-density polyethylene</td>
</tr>
<tr>
<td>ICMC</td>
<td>International Cyanide Management Code</td>
</tr>
<tr>
<td>ICMI</td>
<td>International Cyanide Management Institute</td>
</tr>
<tr>
<td>IRCAP</td>
<td>Incident Response and Correction Action Program</td>
</tr>
<tr>
<td>MERT</td>
<td>Mine Emergency Response Team</td>
</tr>
<tr>
<td>MERV1</td>
<td>Mine Emergency Response Vehicle</td>
</tr>
<tr>
<td>mg/L</td>
<td>Milligrams per liter</td>
</tr>
<tr>
<td>MSHA</td>
<td>Mine Safety and Health Administration</td>
</tr>
<tr>
<td>New Gold</td>
<td>New Gold Inc.</td>
</tr>
<tr>
<td>PMP</td>
<td>Probable Maximum Precipitation</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>QA/QC</td>
<td>Quality Assurance and Quality Control</td>
</tr>
<tr>
<td>RWQCB</td>
<td>California Regional Water Quality Control Board, Colorado River Basin Region</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet(s)</td>
</tr>
<tr>
<td>SMARA</td>
<td>Surface Mining and Reclamation Act</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>TransWood</td>
<td>TransWood Inc.</td>
</tr>
<tr>
<td>WAD</td>
<td>Weak-acid dissociable</td>
</tr>
<tr>
<td>WMMI</td>
<td>Western Mesquite Mines, Inc.</td>
</tr>
</tbody>
</table>
0.0 GENERAL

0.1 Operation Contact Information

**Name of Mine:** Mesquite Mine  
**Name of Mine Owner:** New Gold Inc.  
**Name of Mine Operator:** Western Mesquite Mines Inc.  
**Name of Responsible Manager:** Mr. Jeff Fuerstenau / General Manager  
**Address and Contact Information:**
Western Mesquite Mines Inc.  
6502 East US Highway 78  
Brawley, California 92227-9306  
Telephone: +1 928.341.4653, Ext. 3234  
Facsimile: +1 928.341.0041  
Email: Jeffrey.Fuerstenau@newgold.com

0.2 Location and Description of Operation

The Mesquite Mine is an open pit, heap leach operation located in eastern Imperial County, California alongside U.S. Highway 78 between the towns of Brawley and Blythe, south and adjacent to the foothills of the Chocolate Mountains. The mine site is approximately 35 miles east of Brawley, 24 miles north of the border with Mexico and 16 miles west of the border with the State of Arizona (see Figure 1). Access to the property is via good quality paved roads.

The Mesquite Mine is permitted for a total life-of-mine disturbance of 5,108 acres comprised of unpatented and patented mining lode claims, patented

---

**FIGURE 1 - LOCATION MAP**
and unpatented mill site claims, leased State land, and fee lands.

Mining and processing activities began at the Mesquite Mine in 1985 and were discontinued in 2001, at which time the operation entered into a non-mining status although leaching and refining operations continued. In November 2003, the Mesquite Mine was sold to Western Mesquite Mines, Inc. ("WMMI"), a wholly owned subsidiary of Western Goldfields, Inc. and full mining activities resumed in January 2008. New Gold Inc. ("New Gold") acquired the mine in June 2009 via a business combination with Western Goldfields Inc. New Gold is an intermediate gold producer with a portfolio of global assets located in the United States, Canada, Mexico and Australia. WMMI, New Gold’s wholly owned subsidiary, currently operates the Mesquite Mine.

The Mesquite Mine utilizes blasting and a conventional truck and shovel open-pit mining method, hauling run-of-mine ore directly to leach pads for processing. Mineral processing is by heap leach in a carbon-in-column ("CIC") circuit. The operation uses cyanide for mineral processing and practices continual vigilance in its storage, management and use. The Mesquite Mine was first certified under the International Cyanide Management Code ("ICMC" or "Code") in October 2011 and was recertified in February 2015.

The primary on-site processing facilities include heap leach pads, process ponds, pipelines and containment channels, a CIC plant (a.k.a., the New CIC or NCIC plant) and desorption plant, and a refinery. Mining infrastructure and equipment include three open pits, haul roads and ramps, maintenance shops, and the mobile equipment fleet. Ancillary facilities include workshops, warehouses, administration buildings, and dry house facilities.

Seven heap leach pads are currently active at the Mesquite Mine (Pads 1 through 7). Over the years, these seven pads have been constructed in phases, with construction of the most recent pad (Pad 7) completed in April 2016. Leach Pad 7 extends over the area currently occupied by Leach Pads 1 through 4 as well the small "slot" infill area between these pads and Leach Pads 5 and 6. Ultimately, it will reach a maximum height of 300 feet, effectively consolidating these separate leach pads facilities into a single facility. The Vista Pad was decommissioned and deemed closed by the California Regional Water Quality Control Board, Colorado River Basin Region ("RWQCB") in May 2007. Each of the leach pads is constructed with a composite liner system designed and approved in accordance with State requirements. A permeable geo-textile fabric overlying the composite liner, serves to protect the synthetic membrane liner against puncture and to ensure collection of leachate solution from the base of the stacked ore. Ore is stacked on the liner system in 20-foot high lifts to a height of 300 feet with total ore processing regulated to a maximum of 25 million tons annually from 65 million tons of total mine production (ore and waste). Side slopes of the stacked ore are maintained at an overall slope of approximately two horizontal to one vertical ("2H:1V").

During the previous ICMC audit cycle and through 2016, the Mesquite Mine received 40,000-pound loads of solid sodium cyanide briquettes delivered in Solid-to-Solution tanker trucks, each with a nominal liquid capacity of 8,700 gallons. After the tanker truck arrived on site, it parked on a concrete offload apron (secondary containment area). The Cyanide Mix Tank was filled to approximately three quarters of its capacity with water and adjusted to proper pH using sodium hydroxide (caustic) solution. The water in the mix tank was added to the briquettes within the tanker truck. The solution circulated through the mix tank and truck until the concentration of sodium cyanide
reached approximately 24-30 percent. The sodium cyanide solution was then transferred to the Cyanide Distribution Tank for use in the process.

In January 2017, WMMI began receiving solid sodium cyanide briquettes delivered in ISO tank containers mounted on trailer chassis. An ISO tank is a tank container built to the ISO standard (International Organization for Standardization). The offloading procedure for the ISO tanks is essentially the same as that used for the tanker trucks, although compressed air, versus a pumping system, circulates water through the mix tank and the ISO container.

High-strength, sodium cyanide solution is metered from the Cyanide Distribution Tank into the Barren Solution Tank, as make-up for the heap leach process, at a flowrate of 0.2 gallons per minute ("gpm"). After the sodium cyanide solution is pumped from the Cyanide Distribution Tank to the Barren Solution Tank, it is diluted by the recycled barren solution flowing at roughly 7,500 gpm. The resulting barren solution is pumped to the heap leach pads.

Sodium cyanide solution from the Barren Solution Tank, applied to the ore on the leach pads using drip irrigation, leaches gold and silver from the ore. After passing through the ore via gravity, perforated piping installed below the stacked ore and above the primary synthetic membrane liner collects the gold- and silver-bearing (a.k.a. pregnant) solution and conveys it to the lowest elevation within the heap leach facility, from which point it is piped to the gold adsorption circuit (the CIC Plant).

At the CIC Plant, gold and silver are adsorbed onto the carbon particles within the columns, whereby the process solution becomes void of precious metals or “barren”. The barren solution is then rejuvenated with fresh sodium cyanide and make-up water, treated for pH and pumped back to the leach pads for additional leaching of ores. This process is repeated in a continuous manner.

The precious metal adsorbed in the CIC circuit is collected and transported via a contained carbon transfer trailer in the form of carbon paste to the on-site desorption circuit and refinery located near the administration offices. At the Desorption Plant, the loaded carbon is washed with hydrochloric acid and the gold and silver is stripped in a desorption column using caustic solution. The eluate passes through an electrolysis process (electro-winning cells) inside the refinery producing a gold and silver concentrate, which is heated in an induction furnace to produce gold/silver doré. WMMI ships the doré off site to a major refiner where the gold and silver are further refined to bullion.

0.3 Cyanide Facilities

The Code defines a “cyanide facility” as “a storage, production, waste management or regeneration unit for managing cyanide or cyanide-containing process solution,” or “a pollution control device, equipment or installation used to prevent, control or minimize the risk of a cyanide release”. The Code defines “process solution” as any solution with a weak-acid dissociable (“WAD”) cyanide concentration of 0.5 milligrams per liter (“mg/L”) or greater. Based on this criterion, the auditor identified the following primary, active cyanide facilities at the Mesquite Mine:
• Cyanide Mix Tank (18,000 gallons);
• Cyanide Distribution Tank (18,000 gallons);
• Barren Solution Tank (new system);
• Barren Solution Sump (old system);
• Barren Tails Box;
• Heap Leach Facilities (leach pads, pipelines and containment channels, process ponds);
  − Seven heap leach pads (Pads 1, 2, 3, 4, 5, 6 and 7) served by a single solution collection network (the Vista Pad was closed as of May 2007);
  − Process solution ponds (Pregnant Pond, Barren Intermediate Pond, Event Pond, Pad 5/6 Event Pond);
  − Pregnant and barren solution transfer pipelines situated within lined secondary containment channels);
• Pregnant Solution Sump;
• Pad 6 Sump (pregnant solution);
• Jacuzzi Sump (barren solution from 3-ton carbon columns)
• CIC Plant (two trains, 10 carbon columns active);
  − Six 6-ton columns (containing 8 tons of carbon each)
  − Five 3-ton columns;
  − Carbon Screens; and
• Associated concrete and lined secondary containment structures, solution transfer tanks/vessels and pipes, valves, and pumps throughout the process areas.

It is important to note that the six initial leach pads, constructed over time, formed two active heaps separated by a “slot” area between. Pads 1 through 4 formed one heap and Pads 5 and 6 formed the second. Pads 1 through 4 are located to the west of Pads 5 and 6. The most recent expansion, identified as Leach Pad 7, now extends over the area currently occupied by these two heaps as well the “slot” infill area between, and will grow to form a single maximum height of 300 feet, effectively consolidating these two separate leach pads into a single facility. During the 2014 ICMC recertification audit, WMMI was leaching ore on Pads 5 and 6 only, and initiating construction activities for Leach Pad 7. WMMI completed construction of Leach Pad 7 in April 2016, and has been actively leaching this new heap since June 2016.

Mesquite transfers loaded carbon, via a carbon transfer trailer, from the CIC Plant to the Desorption Plant located next to the refinery. The Desorption Plant consists of the acid wash and strip circuits. Primary components of the wash/strip circuit include the acid wash vessel, strip vessel, and associated transfer tanks/vessels, concrete and lined secondary containment structures, process solution transfer pipes, valves, and pumps. Nonetheless, WMMI uses hydrochloric acid and caustic solution to wash and strip the carbon, respectively, and does not add cyanide within the wash/strip circuit. Although the carbon paste/slurry transferred from the CIC Plant to the Desorption Plant contains residual cyanide, WMMI provided analytical data during the 2014 recertification audit and during this 2018 recertification audit demonstrating that the WAD cyanide concentrations in the paste/slurry are below 0.5 mg/L.
Therefore, based on this data, the Desorption Plant is currently not a cyanide facility by ICMC standards and was not part of the 2014 or 2018 recertification audits. Even so, WMMI indicated that it would implement routine monitoring of the carbon slurry into its quarterly sampling program to provide ongoing confirmation moving forward. The auditor recommended, if sampling results identify WAD cyanide concentrations of 0.5 mg/L or greater, that WMMI consider the Desorption Plant as a cyanide facility and quickly implement all relevant ICMC Standards of Practice for the plant.

WMMI soaks new carbon with raw (fresh) water in the Carbon Holding Tank, located at the old CIC plant area, prior to introducing the virgin carbon into the process. Therefore, this tank is not a cyanide facility and was not part of this 2018 recertification audit.

Two uses of cyanide at gold mines not presently evaluated under the Code include management of cyanide in laboratories and management of cyanide in gold refining. Therefore, the WMMI laboratory facilities and on-site refinery are currently excluded from Code requirements and were not part of this audit.
0.4 Auditor Information

Audit Company: Visus Consulting Group, Inc.
Audit Team Leader: Mark A. Montoya, PE, CEA
Address and Contact Information:
7278 South Sundown Circle
Littleton, Colorado 80120
Telephone: 720.301.0892
Email: mmontoya@visuscorp.com

Audit Dates: January 28 – February 2, 2018

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 (“ICMI”) and that all members of the audit team meet the applicable criteria established by the ICMI for ICMC Verification Auditors. I further attest that this Summary Audit Report accurately describes the findings of the verification audit conducted for the Mesquite Mine located in Imperial County, California and that the verification audit was conducted in a professional manner in accordance with the ICMC Mining Operations Verification Protocol (dated December 2016) and using standard and accepted practices for health, safety and environmental audits.

FOR VISUS CONSULTING GROUP, INC.

Mark A. Montoya, PE, CEA
President / Principal
Lead Auditor and Gold Mining Technical Expert Auditor
0.5 Audit Findings

The operation is in Full Compliance with the International Cyanide Management Code.

During the previous three-year ICMC audit cycle (occurring over the period February 12, 2015 to date), the Mesquite Mine has not experienced any "significant cyanide incidents" subject to the notification requirements under Item 6 of the ICMC signatory application or any cyanide exposures or releases, which are subject to listing under Question 3 of the ICMC Standard of Practice 9.3. The Mesquite Mine has experienced small spills (i.e., minor releases of cyanide-bearing solutions to soil) over the audit cycle; however, these incidents do not affect the compliance status.

Additionally, WMMI has demonstrated “continued compliance” over this ICMC audit cycle, which includes proper retention of records required for verification. Accordingly, the findings contained herein do not always restate proper records retention under each ICMC Standard of Practice.
0.6 Summary of ICMC Principles and Standards of Practice

For easy reference, Table 1 below provides a summary of the ICMC Principles and associated Standards of Practice.

<table>
<thead>
<tr>
<th>PRINCIPLE</th>
<th>STANDARDS OF PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PRODUCTION: Encourage responsible cyanide</td>
<td>1.1 Purchase cyanide from manufacturers employing appropriate practices and procedures</td>
</tr>
<tr>
<td>manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.</td>
<td>to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.</td>
</tr>
<tr>
<td>2. TRANSPORTATION: Protect communities and the</td>
<td>2.1 Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.</td>
</tr>
<tr>
<td>environment during cyanide transport.</td>
<td>2.2 Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management.</td>
</tr>
<tr>
<td>3. HANDLING AND STORAGE: Protect workers and</td>
<td>3.1 Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.</td>
</tr>
<tr>
<td>the environment during cyanide handling and storage.</td>
<td>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.</td>
</tr>
<tr>
<td>4. OPERATIONS: Manage cyanide process solutions and waste streams to protect human health and the environment.</td>
<td>4.1 Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.</td>
</tr>
<tr>
<td></td>
<td>4.2 Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.</td>
</tr>
<tr>
<td></td>
<td>4.3 Implement a comprehensive water management program to protect against unintentional releases.</td>
</tr>
<tr>
<td></td>
<td>4.4 Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.</td>
</tr>
<tr>
<td></td>
<td>4.5 Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.</td>
</tr>
<tr>
<td></td>
<td>4.6 Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.</td>
</tr>
<tr>
<td></td>
<td>4.7 Provide spill prevention or containment measures for process tanks and pipelines.</td>
</tr>
<tr>
<td></td>
<td>4.8 Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.</td>
</tr>
<tr>
<td></td>
<td>4.9 Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.</td>
</tr>
</tbody>
</table>
Table 1 (continued)
Summary of ICMC Principles and Standards of Practice for Gold Mining Operations

<table>
<thead>
<tr>
<th>PRINCIPLE</th>
<th>STANDARDS OF PRACTICE</th>
</tr>
</thead>
</table>
| **5. DECOMMISSIONING:** Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities. | 5.1 Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.  
5.2 Establish an assurance mechanism capable of fully funding cyanide-related decommissioning activities. |
| **6. WORKER SAFETY:** Protect workers’ health and safety from exposure to cyanide. | 6.1 Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.  
6.2 Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.  
6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide. |
| **7. EMERGENCY RESPONSE:** Protect communities and the environment through the development of emergency response strategies and capabilities. | 7.1 Prepare detailed emergency response plans for potential cyanide releases.  
7.2 Involve site personnel and stakeholders in the planning process.  
7.3 Designate appropriate personnel and commit necessary equipment and resources for emergency response.  
7.4 Develop procedures for internal and external emergency notification and reporting.  
7.5 Incorporate into response plans monitoring elements and remediation measures that account for the additional hazards of using cyanide treatment chemicals.  
7.6 Periodically evaluate response procedures and capabilities and revise them as needed. |
| **8. TRAINING:** Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner. | 8.1 Train workers to understand the hazards associated with cyanide use.  
8.2 Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.  
8.3 Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide. |
| **9. DIALOGUE:** Engage in public consultation and disclosure. | 9.1 Provide stakeholders the opportunity to communicate issues of concern.  
9.2 Initiate dialogue describing cyanide management procedures and responsively address identified concerns.  
9.3 Make appropriate operational and environmental information regarding cyanide available to stakeholders. |
1.0 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 Standard of Practice 1.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Over this current ICMC audit cycle, WMMI purchased cyanide direct from The Chemours Company (“Chemours”), formerly E.I. DuPont de Nemours and Company (“DuPont”) and from Cyanco Company, LLC (“Cyanco”). From early 2013 until early 2017, WMMI purchased sodium cyanide exclusively from Chemours, delivered to the site in Solid-to-Solution tanker trucks (i.e., Excel II delivery trailers). In January 2017, WMMI began purchasing sodium cyanide from both Chemours and Cyanco, delivered to the site in briquette form contained within ISO tanks on trailer chassis. During the transition from the Excel II system to the ISO tank system, Cyanco supplied cyanide to the Mesquite Mine on a short-term basis over the period January 16, 2017 to March 31, 2017. Chemours continued to deliver cyanide via both systems until September 5, 2017, when it delivered the last shipment via the Excel II system. Since that time, WMMI has purchased cyanide from Chemours delivered exclusively via the ISO tank system.

Cyanide purchased from Chemours over this ICMC audit cycle was produced at the Chemours North American Sodium Cyanide Production & Packaging Operations located just outside of Memphis, Tennessee. Chemours re-packs the sodium cyanide briquettes from rail hopper cars into bulk packages (i.e., Excel II trailers and ISO containers) at its facility located in Carlin, Nevada for shipment to the Mesquite Mine. Cyanide purchased from Cyanco over this audit cycle was produced at the Cyanco Houston Production Plant located in Alvin, Texas. The Cyanco plant produces solid sodium cyanide briquettes and ships product direct to the Mesquite Mine in ISO containers.

WMMI has maintained a purchase contract in good standing with Chemours since January 1, 2010 and the contract has been in effect over the entire period between the 2011 initial ICMC verification audit and this 2018 ICMC recertification audit. The contract requires that Chemours remain a signatory to the Code and that the cyanide purchased from Chemours is manufactured only at facilities certified as being in compliance with the Code. Chemours, its production and transportation personnel, distributors and contract transporters are required
to comply with all applicable Code Principles, Standards of Practice, performance goals, audit recommendations and certification requirements applicable to Chemours’ production facilities and applicable to transportation to the Mesquite Mine, including the specific compliance matters set out in the Code’s Cyanide Production Verification Protocol and Cyanide Transportation Verification Protocol. Chemours and its transporters (i.e., the entire supply chain) are certified in full compliance with the Code.

During this 2018 ICMC recertification audit, WMMI provided a copy a Short Term Sales Agreement between Cyanco and WMMI for the delivery of cyanide over the period January 16, 2017 to March 31, 2017. The contract requires that Cyanco remain a signatory to the Code and that the cyanide purchased from Cyanco is manufactured only at facilities certified as being in compliance with the Code. Cyanco, its production and transportation personnel, distributors and contract transporters are required to comply with all applicable Code Principles, Standards of Practice, performance goals, audit recommendations and certification requirements applicable to Cyanco’s production facilities and applicable to transportation to the Mesquite Mine, including the specific compliance matters set out in the Code’s Cyanide Production Verification Protocol and Cyanide Transportation Verification Protocol. Cyanco and its transporters (i.e., the entire supply chain) are certified in full compliance with the Code.
2.0 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 Standard of Practice 2.1.

☐ Substantial Compliance

☐ Non-Compliance

Discussion of the basis for this Finding and any Identified Deficiencies:

The purchase contracts between WMMI and Chemours and between WMMI and Cyanco both state that the Seller (i.e., Chemours and Cyanco) is responsible for packaging, labeling, storage prior to shipment, evaluation and selection of routes, storage and security at ports of entry, interim loading, storage and unloading during shipment, transportation to the delivery location, unloading at the delivery location, safety and maintenance of the means of transportation throughout transport, task and safety training for transporters and handlers throughout transport, security throughout transport and emergency response throughout transport, all in accordance with applicable Principles, Standards of Practice, performance goals, audit recommendations and certification requirements of the ICMC.

The referenced purchase contracts state that the Seller (i.e., Chemours and Cyanco) shall only engage ICMC-certified distributors and contract transporters with respect to the cyanide delivered to the Mesquite Mine. Additionally, the contracts specifically state that the Seller, its production and transportation personnel, distributors and contract transporters are required to comply with all applicable Code Principles, Standards of Practice, performance goals, audit recommendations and certification requirements applicable to Seller’s production facilities and applicable to transportation to the Mesquite Mine, including the specific compliance matters set out in the Code’s Cyanide Production Verification Protocol and Cyanide Transportation Verification Protocol.
Standard of Practice 2.2

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

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
</tr>
</thead>
</table>

Discussion of the basis for this Finding and any Identified Deficiencies:

The referenced purchase contracts state that the Seller (i.e., Chemours and Cyanco) is responsible for transporting the cyanide from its production facilities to the Mesquite Mine in accordance with applicable Principles, Standards of Practice, performance goals, audit recommendations and certification requirements of the ICMC (see also ICMC Standard of Practice 2.1 above). Furthermore, as discussed under ICMC Standard of Practice 2.1 above, the contracts state that Seller shall only engage ICMC-certified distributors and contract transporters with respect to the cyanide delivered to the Mesquite Mine. Both Chemours and Cyanco, and their supply chains, are certified in full compliance with the Code.

WMMI indicated that Chemours utilized Quality Carriers, formerly Sentinel Transportation LLC, exclusively, as its transporter over this audit cycle and that Cyanco utilized TransWood Inc. (“TransWood”) as its transporter over the same period. Both transport companies are signatory and certified to the Code. Chemours also lists Miller Transporters, Inc. as a back-up carrier. Miller Transporters, Inc. was a signatory and last certified to the Code in 2014; however, the transporter voluntarily withdrew from the Code in March 2017 and January 2018.

Review of the ICMC Summary Audit Reports prepared for Quality Carriers and TransWood provided verification that the transportation chains utilized by Chemours and Cyanco to deliver cyanide to the Mesquite Mine over the period between the 2014 ICMC recertification audit for the Mesquite Mine and this 2018 ICMC recertification audit, were certified as being in full compliance with the Code. Chemours did not utilize Miller Transporters, Inc. to deliver cyanide to the Mesquite Mine over this period.

WMMI maintains signed bills of lading demonstrating maintenance of custody by the transporters (Quality Carriers and TransWood) from the points of origin to the Mesquite Mine. During this 2018 ICMC recertification audit, the auditor reviewed representative samples of records for years 2015 through 2017.
3.0 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.*

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>☑ Full Compliance</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>☐ Substantial Compliance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Non-Compliance</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

As verified during the 2011 ICMC verification audit, the facilities for unloading, storing and mixing cyanide are designed and constructed in accordance with Chemours’ standards for these types of facilities. According to the Risk Management Plan prepared in accordance with the California Accidental Release Prevention Program (“Cal/ARP”) regulations, the cyanide offload and storage facilities were designed in compliance with recognized and generally accepted good engineering practices, installed under permit through the Imperial County Building Department, and the installation meets the California Building Code and seismic zone 4 construction requirements. The equipment is a package designed by Chemours and installed by construction contractors.

The Mesquite Mine site is remote with limited off-site communities located nearby that could potentially be affected by a cyanide release. Off-site residences include the California towns of Holtville (27 miles away) and Brawley (32 miles away), both southwest/west of the site. The Glamis Dunes recreational area and the Glamis Beach Store are located approximately six miles southwest of the site along U.S. Highway 78. The Mesquite Regional Landfill facility, operated by Los Angeles County, is situated along the southwest perimeter boundary of the Mesquite Mine near the main entrance gate. Nonetheless, the landfill facility is located over one mile away from any on-site cyanide facilities and has been unoccupied and non-operational since its construction.

The unloading and storage area resides within the secured mine facility, which is surrounded by an eight-foot tall chain-link fence topped with razor wire. Security personnel staff the main entrance to the mine site 24 hours per day, seven days per week. No surface water bodies are located in the immediate vicinity of the Mesquite Mine.

The cyanide offload and storage facilities include a large, reinforced concrete apron, on which the cyanide delivery trucks park during offloading operations. The apron is large enough to accommodate the cyanide delivery truck and trailer, and has concrete curbing around its perimeter to contain any spills on the slab. Any excess spillage would flow into the adjacent concrete containment area and to a floor sump equipped with an automated pump for returning solution back to the process circuit.
WMMI utilizes ultrasonic tank level meters and high-level alarm systems on the cyanide mix and distribution tanks and maintains two spare units on site. WMMI also recently installed mechanized level gauges (i.e., float systems) with a staff indicator mounted on the outside of the cyanide tanks, which provide a visual check as confirmation that the ultrasonic systems are working properly. WMMI monitors the tank levels routinely as part of the cyanide offload procedures.

The cyanide offload and storage facilities are located outside in an open-air environment. Cyanide storage consists of the closed top, carbon steel, cyanide mix and distribution tanks. Therefore, adequate ventilation exists to prevent the build-up of hydrogen cyanide gas. The cyanide mix and distribution tanks are located within a common, concrete, secondary containment area. The containment area consists of a reinforced concrete slab surrounded by 18-inch high concrete curbing. The two tank foundations are solid mass, concrete pedestals, which provide an impermeable barrier between the tank bottoms and the ground (soil). An eight-foot tall chain-link fence topped with razor wire surrounds the entire Mesquite Mine site, and security personnel staff the main entrance to the site 24 hours per day, seven days per week. The cyanide offload and storage facilities are located within the fenced perimeter and signage warning of cyanide is prominently displayed. Additionally, WMMI has installed blind flanges on the drain valves and other maintenance-type valves at the cyanide mix tank and distribution tank to prevent inadvertent opening and potential exposures.

The antiscalant used at the Mesquite Mine is acidic; therefore, the antiscalant storage tank is situated within an isolated concrete secondary containment area at the cyanide offload and storage facilities. The secondary containment systems provided for the cyanide and antiscalant tanks are adequately sized and function to prevent mixing.

During the field component of this 2018 ICMC recertification audit, the auditor verified that the concrete apron and all containment areas at the cyanide offload and storage facilities were in good repair.

**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.*

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in Full Compliance with Standard of Practice 3.2.

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Over this current ICMC audit cycle, WMMI received solid cyanide from Chemours and Cyanco, delivered to the site in Solid-to-Solution tanker trucks (i.e., Excel II delivery trailers) and ISO tanks on trailer chassis. Currently, WMMI receives solid cyanide exclusively from Chemours delivered via the ISO tank system. In all cases, the cyanide
product is delivered to the cyanide mix tank and distribution tank and WMMI escorts the delivery trucks off the Mesquite site immediately following each offload. Therefore, no empty cyanide containers remain on site.

WMMI’s written offloading procedures require that the delivery driver rinse any residual cyanide from the truck following offload events. Discussions with the Quality Carriers driver and review of Quality Carriers’ procedures during an offload event, observed during the field component of this ICMC recertification audit, provided verification that the driver rinses the hose connections on the delivery trailer, ensures that the trailer is free of cyanide residue, and washes down the concrete containment pad following offloads.

WMMI has developed and implemented written operating procedures to prevent exposures and releases during cyanide offloading and mixing activities. The procedures include systematic instructions for connecting hoses and operating pumps and valves during the offload, mixing, and transfer of cyanide for each system. Additionally, the procedures require the use of proper Personal Protective Equipment (“PPE”) and require a qualified spotter (WMMI operator) to be present during the entire offload process.

The WMMI Emergency Response Plan (“ERP”) includes detailed response procedures for cyanide solution spills. According to the procedures, in the event of a high-strength cyanide release, the delivery driver and WMMI operator would attempt to stop the source of the spill via one of the emergency shutoff switches/devices. Additionally, WMMI would take immediate steps to evacuate and barricade the area to limit access. WMMI would notify the cyanide supplier (Chemours) and would take further action upon guidance provided by the Chemours representative. Chemours would mobilize an incident response team, if warranted.

WMMI would pump solution captured within concrete secondary containment directly back into the process circuit and then flush all concrete containment areas with fresh water. WMMI would dilute all high-strength solution that flows to the adjoining lined pipeline containment channel with fresh water, and the diluted solution would drain to the pond system for pump back into the process. If solution escapes concrete or lined secondary containment, WMMI would construct earthen berms to contain the solution for immediate pump back into the process. All solution in containment would be pumped dry or low as possible. Following pumping, WMMI would implement procedures for reporting, cleaning up, and performing soil analyses following accidental spills outside of containment. To protect wildlife, WMMI would install temporary netting to cover any ponded solutions having WAD cyanide concentrations that exceed 50 mg/L.
4.0 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 preventive maintenance procedures.

The operation is in

☑ Full Compliance

☐ Substantial Compliance

☐ Non-Compliance

with Standard of Practice 4.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Please refer to Section 0.3 above for a listing of the active cyanide facilities at the Mesquite Mine. WMMI currently implements plans and procedures related to the operation of its cyanide facilities. These written procedural documents cover the Mesquite cyanide facilities and provide measures for managing cyanide in a manner that prevents or controls releases to the environment and exposures to workers and the community. Standard Operating Procedures (“SOPs”) identify required PPE and the risks involved with the operating tasks, and adequately describe safe work practices.

The regulatory permits for the Mesquite Mine identify the assumptions and parameters on which the facility designs are based, and stipulate operating requirements for the process facilities. Principally, the Waste Discharge Requirements serve as the operating manual for the process facilities to ensure protection of water quality and the Conditional Use Permit requires safeguards to protect workers, communities and wildlife. WMMI has constructed and operates its process facilities in accordance with these key permit stipulations.

Over this ICMC audit cycle, WMMI has implemented various procedures to identify when changes processes or operating practices may increase the potential for releases and to incorporate the necessary release prevention measures. WMMI implemented a new change management process in July 2015, which requires a risk assessment, assignment of action items, and approvals by the Health & Safety and Environmental departments for all changes, regardless of risk. As verification of implementation, WMMI provided change management documentation for the new barren solution and caustic tanks, the new derrick screen and for increasing cyanide concentrations in the barren solution on two occasions.

In accordance with regulatory requirements, WMMI must provide notification and develop a proposed monitoring plan if cyanide is detected in the vadose zone monitoring wells. Operating permits also stipulate that the mine have backup emergency equipment to ensure that the ponds do not overflow; thus, WMMI maintains emergency generators on site as well as redundant pump systems and other critical equipment to manage solution flows.
during line power outages. Furthermore, WMMI implements contingency procedures for operating the pond system during the upset situations. WMMI Process personnel check water/solution levels in the process ponds each shift to ensure that the ponds are operated below critical levels in order to maintain surplus capacity for the design storm event and heap draindown storage volume. During any closure event, whether temporary or permanent, WMMI personnel familiar operating the solution containment and pumping system, including the ponds, would remain on site full time to manage the solutions.

WMMI implements routine inspection and maintenance programs for the Mesquite Mine cyanide facilities, to ensure and document that the facilities are functioning within design parameters for proper management of process solutions. These programs involve inspections conducted each shift, monthly, and semi-annually covering process tanks; secondary containments; leak detection systems in the leach pads and process ponds; pond liners and water levels; pipelines, pumps and valves; and stormwater structures. In addition to routine monitoring of groundwater, stormwater and vadose zone systems, the Environmental Department conducts routine inspections of the perimeter fencing surrounding the mine site and the stormwater diversion structures. Furthermore, WMMI supervisors and the Environmental and Health & Safety departments (EHS Committee) perform “Oversight Inspections”. Inspection forms and checklists document the date of the inspection, the name of the inspector and observed deficiencies, and in almost all cases, provide a section to record assignment of corrective actions and the completion date. In the auditor’s professional opinion, the inspection frequencies described above are sufficient to assure and document that the cyanide facilities are functioning within design parameters.

To supplement routine inspections, WMMI implements a preventative maintenance program for critical equipment related to the safe management of cyanide solutions. Routine maintenance is performed on the large pump motors and corrective maintenance is performed on feed pumps, distribution pumps, sump pumps and other critical equipment when issues are identified by routine field inspections. Additionally, WMMI keeps redundant pump systems in stock at the on-site warehouse.

The primary power source for the Mesquite Mine is overhead line power from the local grid. In accordance with regulatory requirements, WMMI maintains diesel-powered generators at the CIC Plant as a backup power source. The generators are sufficient to power all process pumps and equipment so that the process facilities remain fully operational during line power outages. Additionally, two small diesel-powered generators are maintained at the process ponds, which power the pumps at the Pregnant Pond and the Barren Intermediate Pond. WMMI performs routine electrical and mechanical maintenance inspections on the generators.
Standard of Practice 4.2

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

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
</tr>
</thead>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

This Standard of Practice is not applicable, as the Mesquite Mines is a heap leach operation and does not currently operate a mill.

Standard of Practice 4.3

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

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
</tr>
</thead>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

In 2006, WMMI developed a comprehensive water balance model, using Microsoft Excel® software, to predict system performance during the active life of the proposed expansion of Heap Leach Pads 5 and 6. Specifically, the model was prepared for to estimate freshwater make-up requirements for the leaching circuit under average precipitation conditions using solution application by either wobbler spray or buried drip emitters, and to verify the adequacy of existing solution pond capacities for the planned expansion under the same conditions. In 2014, WMMI updated the water balance model to accommodate an increase in the design solution application rate. The model is designed to accommodate periodic updates during actual heap operations and to incorporate additional pad phasing, pond storage fluctuations, and climatic variations from computed averages for projected operational control of solutions.

The WMMI Process Senior Metallurgical Engineer manages the water balance model with support from the design engineer to update it as necessary to accommodate facility expansions and to perform evaluations following significant storm events, as warranted. The Metallurgical Engineer increments the water balance simulation on a monthly basis to reflect seasonal variations in precipitation and evaporation.

Inflows to the water balance system include moisture in the mined ore, precipitation on all lined areas, and freshwater make-up. Stormwater diversion structures and earthen berms are constructed around the perimeter.
of the heap leach facilities to prevent runoff from upgradient watersheds from entering the lined areas. Outflows from the water balance system include the moisture consumed in raising the moisture content in placed ore from the as-mined condition to the heap stack field capacity, and evaporation from application on the heap, from the heap surface, and from process pond water surfaces. The Mesquite water balance operates as a net evaporative system; i.e., under environmental processes, more water exits the system than enters the system. In order for the leaching circuit to operate correctly, additional freshwater must be introduced into the system.

In accordance with the Waste Discharge Requirements, the pond system must be designed to contain runoff generated by a maximum probable one-hour storm and 24 hours of draindown volume from the heaps, while providing two feet of freeboard. The Mesquite water balance model uses the Probable Maximum Precipitation ("PMP") event, defined as 4.94 inches of rain occurring in one (1) hour. According to design documentation, the pond system is sized to contain runoff from the maximum probable 100-year, 24-hour event (4.96 inches) and 24 hours of draindown volume from the heaps, while providing two feet of freeboard.

WMMI Process personnel check water/solution levels in the pond system each shift. Slope measurements are taken and the inspection log provides critical measurement values, which prompt operators to take action, such as pumping water to another pond as appropriate. Normal operating procedure is to start pumping out the ponds as soon as enough head is available to operate the pumps, with the goal of recycling water as much as possible.

As discussed under ICMC Standard of Practice 4.1 above, WMMI utilizes diesel-powered generators as a backup power source and maintains redundant pumping equipment on site. Based on the conservative design capacity of the pond system, the water balance model itself does not directly consider the effects of power outages or equipment failures. Freezing and thawing conditions are not a factor at the Mesquite Mine and the operation is a zero-discharge facility (closed system) and does not employ treatment, destruction or regeneration systems.

Average rainfall and pan evaporation data collected at the Brawley, California weather station over the period 1927 to 2005 was entered into the design model to account for water in the system, prior to the occurrence of the PMP event. The most recent updates to the design model, completed to evaluate the Leach Pad 7 expansion (2012) and an increase in the solution application rate (2014), also use data from the Brawley weather station over this same period. The Brawley weather station has compiled a long history of data and is located approximately 32 miles southwest of the Mesquite Mine site. Therefore, the precipitation data collected at Brawley is reasonably representative of the mine site. WMMI also collects precipitation data from an on-site meteorological station located near the front gate and began entering this data into the operational water balance model in 2015.
Standard of Practice 4.4

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

- Full Compliance
- Substantial Compliance
- Non-Compliance

**The operation is in Full Compliance with Standard of Practice 4.4.**

**Discussion of the basis for this Finding and any Identified Deficiencies:**

An eight-foot tall chain-link fence topped with razor wire surrounds the entire Mesquite Mine site. In addition to restricting public access, the fence is designed and regularly maintained to prevent access to the site by desert tortoise and larger terrestrial wildlife. There is no livestock in close proximity to the mine site.

The Pregnant Pond and Barren Intermediate Pond each have floating covers, designed to exclude wildlife and prevent evaporative loss. Additionally, the cover in the Pregnant Pond includes a netted port, which allows Process personnel to determine visually if there is adequate water in the pond to operate the pumps.

The two event ponds do not have floating covers or other wildlife deterrent systems as these ponds are normally kept dry and used for upset conditions. Currently, WMMI utilizes the Pad 5/6 Event Pond as the first point of containment for excess solution from the CIC Plant, which reports to the overflow pipe system located in the lined pipeline containment channel or to directly to the channel itself. WMMI pumps process solution captured in either event pond back into the process circuit as soon as possible. If necessary, excess solutions from the CIC Plant are also conveyed to the Pregnant Pond via the overflow pipeline located within the lined containment channel between the plant and the pond.

WAD cyanide concentrations are less than 50 mg/L in the pregnant solutions returning from the heaps and reporting to the transfer pipelines, collection and pipeline containment channels, and pond systems. WAD cyanide concentrations in the barren solutions are typically above 50 mg/L. WMMI normally returns barren solution to the heaps directly from the grate-covered Barren Tank at the CIC Plant and keeps the Barren Intermediate Pond dry, utilizing it as an event pond and/or pump-back pond (even though the pond has a floating cover). Thus, open barren solution would only occur during non-routine (upset) operating conditions and occasionally when conditions cause temporary ponding on top of the heaps. Therefore, based on WAD cyanide concentrations in process solutions and management of process flows, other than the perimeter fence, WMMI does not implement or rigorously maintain existing deterrents to restrict access by wildlife (birds) to open waters in the collection and pipeline containment channels and in the process ponds.

During this 2018 ICMC recertification audit, WMMI provided analytical data from open water samples taken in the collection and pipeline containment channels and in the process ponds over the period January 16, 2015 through November 16, 2017, which demonstrate that WAD cyanide concentrations did not exceed 50 mg/L over this 34-
month period. As further verification, the auditor reviewed daily production reports provided for the three-year audit cycle period.

WMMI implements wildlife mortality reporting procedures and submits a report to the Bureau of Land Management, El Centro Resource Area (“BLM”) each month, regardless of whether mortalities occur. Additionally, a WMMI internal report must be completed in the event of a wildlife mortality. Eleven cyanide-related mortalities occurred over this three-year audit cycle. On two separate occasions, within a one-week period in May 2015, a total of five bird (shorebirds) mortalities occurred on top of the heap due to ponding. In February 2016, an upset condition at the cyanide offload area caused high-strength cyanide solution to flow to the Pad 5/6 Event Pond resulting in six bird mortalities at the pond. The auditor reviewed the wildlife mortality reports completed over this period as verification.

WMMI uses drip emitters to apply leach solution to the tops of the heaps and wobblers on the side slopes of heaps, where the potential for ponding is low due to the steep slopes. Drip emitters effectively eliminate overspray and the auditor did not observe any overspray where wobblers were in use. WMMI indicated that minor ponding issues are common; therefore, WMMI has implemented written procedures to ensure that operators identify and remediate ponding conditions when they occur on the heaps. Additionally, WMMI Process operators are trained to monitor wildlife activity and mortalities, and to inspect heap leach facilities for ponding on a routine basis.

WMMI took appropriate actions to respond to the February upset that caused the wildlife mortalities. These actions include adding fresh water to the pond to reduce cyanide concentrations, rerouting the cyanide sump discharge pipe to the Barren Tank, ongoing sampling of the solution in the pond, stationing an employee at the pond until cyanide levels were reduced, and employing propane canons at the pond as a temporary wildlife deterrent. Nonetheless, the auditor requested that WMMI update its written contingency procedures for responding to such releases. The auditor also requested that WMMI retrain its personnel on its heap leach inspection procedure, regarding documentation and implementation of corrective actions when solution ponding occurs on the heaps. Following the field component of this audit, WMMI provided updated procedures and associated training records as evidence of implementation.

**Standard of Practice 4.5**

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

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in **Full Compliance** with Standard of Practice 4.5.

Discussion of the basis for this Finding and any Identified Deficiencies:
The Mesquite Mine is designed and operated as a zero-discharge facility (closed system) with no direct discharge to surface water. No surface water bodies exist in the immediate vicinity of the Mesquite Mine. Consequently, in accordance with its Storm Water Pollution Prevention Plan, WMMI monitors stormwater at five on-site sample points, quarterly and following precipitation events that generate adequate flow. WMMI submits annual reports to the RWQCB, which include WAD cyanide analytical results. Reports reviewed over this three-year audit cycle, including a sample taken on August 26, 2014, indicate that WAD cyanide levels were below the analytical detection limit (<0.01 mg/L) for all samples. The 2017 annual report is not due until June 30, 2018.

Standard of Practice 4.6

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

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
</tr>
</thead>
</table>

Discussion of the basis for this Finding and any Identified Deficiencies:

The Mesquite process construction and operation include a number of seepage control technologies such as composite liner systems at the heap leach pads, composite liner systems with leak detection systems at the process ponds, lined secondary containment channels for solution pipelines, and concrete secondary containment in process areas. The pond system is sized to contain runoff from the maximum probable 100-year, 24-hour event and 24 hours of draindown volume from the heaps, while providing two feet of freeboard. The Pregnant Pond, Barren Intermediate Pond and Pad 5/6 Event Pond are constructed with double synthetic membrane liners with a leak detection system, between the liners. The pregnant and barren process ponds also have a synthetic membrane cover designed to exclude wildlife and prevent evaporative loss. The Event Pond was designed to function as a temporary storage outlet for excess runoff from the process areas and overflow from the process ponds; therefore, it is constructed with a single synthetic membrane liner and clay underliner with leak detection, and does not have a synthetic membrane cover. WMMI installed a new synthetic liner in the Event Pond in 2008.

WMMI conducts regular inspections and monitoring of all process facilities to ensure that the operating criteria are being met. Routine visual inspections of the concrete secondary containments at the CIC Plant and the liner systems in the collection and pipeline containment channels and at the ponds are performed to ensure physical integrity of these protective systems. Additionally, WMMI routinely monitors a network of vadose zone wells at the leach pads, the leak detection systems at the ponds, and groundwater wells both upgradient and downgradient of the process facilities.

Groundwater across the Mesquite Mine site ranges between roughly 180 to 250 feet deep (according to Waste Discharge Requirements) and flows in a southwesterly direction. The make-up water supply for the operation...
comes from three deep wells drilled into alluvium, approximately three miles southeast of the processing facilities. The beneficial use of the groundwater is Municipal Supply.

WMMI conducts groundwater monitoring both upgradient and downgradient of the process facilities in accordance with the RWQCB Monitoring and Reporting Program stipulated by the Waste Discharge Requirements. WMMI also routinely samples its vadose zone gas and bailer monitoring wells for hydrogen cyanide ("HCN") gas and cyanide solution, respectively. During this 2018 ICMC recertification audit, the auditor reviewed annual groundwater monitoring reports, submitted to RWQCB over the three-year audit cycle (2015 – 2017). Results indicate that Total and Free cyanide concentrations for all samples were below the detection limits, which varied between <0.005 mg/L and <0.1 mg/L. WAD cyanide is not analyzed or reported. The auditor reviewed monitoring logs and WMMI personnel indicated that no solution has been encountered in the vadose wells over the past three years.

**Standard of Practice 4.7**

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

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
<th>with Standard of Practice 4.7.</th>
</tr>
</thead>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

All cyanide mixing, storage and process tanks at the Mesquite operation are provided with concrete, secondary containment. During the field component of this 2018 ICMC recertification audit, the concrete containments were in good repair. Additionally, WMMI uses carbon steel and high-density polyethylene ("HDPE") piping materials and piping system components for conveyance of cyanide solutions and slurries. Cyanide storage and process tanks are carbon steel. These materials are compatible with cyanide and high pH solutions.

At the CIC Plant, the process tanks and vessels are set on solid mass, concrete pads or are supported above the concrete slab floor by steel structures. The entire process area provided for the carbon columns is a reinforced concrete pad with a perimeter curb. The cyanide mix and distribution tanks are located within a common, concrete, secondary containment area, consisting of a reinforced concrete slab surrounded by a concrete curb. The Cyanide Mix Tank and the Cyanide Distribution Tank are mounted on solid mass, concrete pedestal foundations, which provide an impermeable barrier between the tank bottoms and the ground (soil).

Following the field component of the 2014 ICMC recertification audit, WMMI modified the cyanide mix and distribution tank containment area by hydraulically connecting the cyanide containment with the caustic solution containment and constructing two weirs, designed to release spillage onto the adjoining concrete offload apron and ultimately to the lined pipeline containment channel via the barren solution sump overflow pipes. If the overflow pipes were to clog, the surrounding concrete containment slab is keyed to the synthetic liner in the...
channel, providing another means of conveyance to the channel. Calculations provided by WMMI demonstrate that, accounting for the 100-yr, 24-hr storm event, six percent of the tank volume would stay in concrete containment and the remaining 94 percent would report to the ponds via the lined channel. The auditor verified that impermeable secondary containment exists from the cyanide offload area to the ponds. Furthermore, the surplus capacity provided by the pond system to account for the heap draindown volume provides ample secondary containment capacity for the cyanide tanks.

Similarly, the synthetic membrane lined, pipeline containment channel keyed to the north side of the concrete slab at the CIC Plant provides overflow capacity for the curbed concrete containment provided for the carbon columns and related vessels and the new Barren Tank. Any overflow from the concrete apron provided for the cyanide delivery trucks and from the pregnant and barren solution sumps would also report to the lined channel. As discussed above, the lined containment channel reports to the process ponds, which provide ample containment capacity.

For smaller spills, the concrete secondary containments provided for the cyanide process tanks at the CIC Plant and adjoining cyanide offload and storage facilities have concrete floor sumps with dedicated, automated pumps to collect and remove cyanide solution and slurry spillage for return to the process circuit. The containments and sumps do not have drains open to the environment. Daily visual inspections conducted by Process personnel include the physical integrity and available capacity of the secondary concrete containments, lined areas, and ponds. Therefore, WMMI does not implement written procedures for managing water/solution collected in secondary containments.

All process solution pipelines at the Mesquite operation are located within concrete or synthetic membrane lined secondary containment. Additionally, all pipelines are located above ground with the exception of a short segment of pipe running between the Event Pond and the Barren Intermediate Pond, which allows transfer of water from the Event Pond to the Barren Intermediate Pond via pumping, and a short segment running under the roadway at the Pad 5/6 Event Pond. These buried pipes are equipped with pipe sleeves, which provide secondary containment.

**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 | ☐ Substantial Compliance | ☐ Non-Compliance | with Standard of Practice 4.8. |

**Discussion of the basis for this Finding and any Identified Deficiencies:**
Please refer to Section 0.3 above for a list of the active cyanide facilities at the Mesquite Mine and to the previous ICMC Summary Audit Reports (August 2011 and February 2015) for discussion regarding the construction quality assurance and quality control ("QA/QC") documentation provided for the cyanide facilities in operation during those audits.

New cyanide facilities and modifications to existing cyanide facilities constructed subsequent to the 2014 ICMC verification audit, include the new Barren Tank and associated concrete containment, Leach Pad 7 Expansion, Antiscalant Tank concrete containment modification, and Pad 6 Sump.

WMMI implemented formal QA/QC programs during construction of the new Barren Tank project and Leach Pad 7 expansion project and provided QA/QC construction documentation. A qualified person performed an inspection of the Antiscalant Tank containment and provided a letter certifying that the containment wall is structurally sound and that the wall does not negatively impact the existing cast-in-place concrete containment. Formal QA/QC documentation for the Pad 6 Sump at the CIC Plant was not available; as WMMI considered these improvements routine field modifications. This sump facility is not a major installation.

The QA/QC documentation prepared for the Barren Tank consists of records approved by Imperial County Planning and Development Services for earthworks, the concrete foundation and containment and steel structure. The documentation includes drawings, geotechnical report, concrete test reports, compaction test report, structural calculations, and an inspection record documenting the inspections made by Imperial County for the various components of construction.

The QA/QC documentation prepared for the Leach Pad 7 expansion project covers concrete, soils and aggregate for earthwork, geosynthetic clay liner, geotextile, geomembrane, geonet and piping. The report includes as-built drawings, specifications changes and exceptions, soils test results, geomembrane certificates and quality assurance test results.

Professional civil engineers registered in the State of California prepared the QA/QC documentation. Imperial County Planning and Development Services personnel conducted the QA/QC inspections during construction.

WMMI has retained the original QA/QC documentation for cyanide facilities constructed prior to and subsequent to the 2011 ICMC verification audit. During this 2018 recertification audit, the auditor spot-checked construction reports for the heap leach and process facilities as verification. The documentation is archived in hardcopy and/or electronic format.
Standard of Practice 4.9

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

☐ Full Compliance
☐ Substantial Compliance
☐ Non-Compliance

The operation is in [ ] Full Compliance with Standard of Practice 4.9.

Discussion of the basis for this Finding and any Identified Deficiencies:

WMMI has prepared and implemented written standard procedures for monitoring activities to evaluate the effects of cyanide use on wildlife and water quality. The monitoring plan provides standard procedures for monitoring water quality and describes the protocol to be followed during monitoring and sampling events of groundwater wells, vadose wells and the leak detection systems. The sampling procedures are in accordance with the California Code of Regulations. All other procedures are based on acceptable regulatory and industry standards.

WMMI implements wildlife mortality reporting procedures and submits monthly wildlife mortality reports to the BLM, regardless of whether mortalities occur. The daily leach pad inspections include wildlife presence and mortalities on the leach pads, where WAD cyanide concentrations typically approach or exceed 50 mg/L. During new hire training, WMMI employees are trained to observe and report wildlife presence and mortalities site wide on a continuous basis.

In accordance with the RWQCB Monitoring and Reporting Program, WMMI must conduct water sampling and analysis according to the most recent version of standard U.S. Environmental Protection Agency (“EPA”) methods and use a laboratory approved by the California Department of Public Health. An established engineering and environmental consulting firm, originally developed the water monitoring procedures, based on the California Code of Regulations and other acceptable regulatory and industry standards. Qualified persons; i.e., the WMMI Environmental Manager and the Environmental Department personnel manage and administer the protocols.

The water quality sampling procedures include a map showing sampling locations and list the groundwater monitoring wells, vadose monitoring wells, piezometer monitoring (although the Mesquite operation no longer has piezometers to monitor), and the leak detection monitoring sumps along with the required monitoring method, monitoring frequency and reporting frequency required for each. These sampling procedures also include protocols for sample containers and volumes, sample labeling, sample preservation and storage, and field measurements (sampling conditions). The sample handling procedures describe the protocol to be followed for sample custody (chain of custody requirements), packaging and shipment. WMMI sends the water quality samples to an outside laboratory certified in the State of California for analysis.
WMMI conducts groundwater monitoring in accordance with the RWQCB Monitoring and Reporting Program stipulated by the Waste Discharge Requirements. In total, seven groundwater wells are monitored for WAD cyanide concentrations, four of which are located downgradient of the process facilities. WMMI currently conducts groundwater sampling semi-annually (in June and December) and samples its vadose zone gas and bailer monitoring wells semi-annually for HCN gas and cyanide solution, respectively. Prior to May 2014, WMMI was required to sample its groundwater wells on a quarterly basis. Analytical results are reported to RWQCB semi-annually and annually. WMMI Process personnel inspect the leak detection systems in the leach pads each shift and in the ponds daily, recording flowrates at the leak detection systems in the pads and volumes reporting to the leak detection systems in the Pregnant Pond, Barren Intermediate Pond, and Event Pond. Wildlife monitoring is conducted daily. WMMI does not monitor surface water (see ICMC Standard of Practice 4.5 above).

In the auditor’s professional opinion, the WMMI monitoring program is designed to adequately characterize environmental media (i.e., groundwater and stormwater quality and wildlife mortalities) and to identify changes in a timely fashion.
5.0 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.

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in [ ] Full Compliance with Standard of Practice 5.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Over this ICMC audit cycle, the Mesquite Mine continued to operate under three separate closure and reclamation plans and the Conditional Use Permit required WMMI to comply with all conditions of all three plans. These plans have been prepared over time to include the original Mesquite Mine, the VCR Expansion area and the Mesquite Mine Expansion area.

In 2015, WMMI submitted an application to Imperial County to consolidate the three reclamation plans into one consolidated reclamation plan (the Consolidated Reclamation Plan) and to amend the Conditional Use Permit to add 37 acres to the disturbance boundaries of the mine. More specifically, the Consolidated Reclamation Plan was prepared to consolidate the reclamation requirements of three separate reclamation plans for the Mesquite Mine, to resolve their contradictions, to update maps, reclamation techniques, and various statements of fact to current conditions and state of reclamation science, and to gather all permits, their conditions and mitigations, into a single document. At the time of this 2018 ICMC recertification audit, final approval of the Consolidated Reclamation Plan was pending. However, the amended Conditional Use Permit was recorded on January 8, 2018, which requires WMMI to comply with all conditions of the Consolidated Reclamation Plan. Once approved, the Consolidated Reclamation Plan will supersede the existing approved plans, which shall no longer be in effect.

The Consolidated Reclamation Plan complies with the California Code of Regulations, BLM guidelines, the California Surface Mining and Reclamation Act (“SMARA”) and the Conditional Use Permit for the Mesquite Mine, as do the three separate closure and reclamation plans. Additionally, closure items comply with heap leach closure requirements specified by the Waste Discharge Requirements.

The Consolidated Reclamation Plan provides written procedures to decommission cyanide facilities at the cessation of operations, including the heap leach facilities, the process solution ponds, and process solution piping. Although not specifically described in the decommissioning procedures provided in the closure plan and permits,
the consultant that prepared the Financial Assurance Cost Estimate confirmed that the estimate includes costs for rinsing and removing the process tanks, vessels, pipes and equipment used in the process circuits (e.g., the CIC Plant, Desorption Plant, Refinery and cyanide offload and storage area). Additionally, the estimate includes costs for detoxifying all remaining hazardous materials or fluids on site and/or removing and disposing at appropriate disposal sites.

The Consolidated Reclamation Plan provides a schedule summarizing the anticipated major closure and reclamation activities and their projected years of performance. Activities commence in 2017 and extend through year 2032, including final reclamation and closure monitoring and revegetation monitoring. Closure, monitoring and decommissioning of heap leach pads begins in 2017 and continues through 2027.

WMMI updates closure and reclamation procedures as required for mine expansions. In accordance with the Mesquite Mine Expansion Project Reclamation Plan Permit, administered by Imperial County, WMMI must submit amendments to the approved plan, detailing proposed changes, for approval. At the time of this writing, the October 2001 “Mesquite Mine Closure and Reclamation Plan” is the most current approved plan, with the previous update occurring in 1999. In 2001, Newmont Mining Corporation, the owner at that time, updated the “Mesquite Mine Closure and Reclamation Plan” to accommodate expansion of existing facilities and construction of additional facilities, including expansion of two open pits, expansion of a waste rock storage area, and construction of associated ancillary facilities including roads and stormwater diversion channels.

At the time of this 2018 ICMC recertification audit, final approval of the Consolidated Reclamation Plan was pending. The consolidated plan addresses all subsequent cyanide facility expansion projects that have occurred or that are currently planned. WMMI updates the associated closure and reclamation cost estimate annually (see ICMC Standard of Practice 5.2 below).

**Standard of Practice 5.2**

*Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.*

- [x] Full Compliance
- [ ] Substantial Compliance with Standard of Practice 5.2.
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

WMMI retains a consultant each year to prepare an independent third-party update of both internal and bond-level reclamation cost estimates for the Mesquite Mine; i.e., the Mesquite Financial Assurance Cost Estimate. The 2017 estimate provides detailed costs for final reclamation and closure of the entire Mesquite site, including all cyanide facilities, and incorporates all assumptions contained in the Consolidated Reclamation Plan.
Costs for heap closure and surface reclamation activities have been separated for determining bonding requirements between different regulatory agencies. Estimates for existing and approved facilities and surface disturbance have been prepared to update the operation’s existing surety bonds to reflect current conditions. The cost estimate covers all three reclamation plans under which the Mesquite Mine operates, which have recently been combined into the Consolidated Reclamation Plan (see ICMC Standard of Practice 5.1 above).

The costs reflect third party implementation, and include appropriate overhead cost burdens. For bonding purposes, the closure and reclamation scenario anticipates a third party contractor conducting required work under the direction and supervision of the lead regulatory agency.

In accordance with SMARA, WMMI prepares annual updates to its Financial Assurance Cost Estimate for submittal to Imperial County Planning and Development Services. Following its review and acceptance, Imperial County forwards the estimate to the California Department of Conservation, Office of Mine Reclamation for final approval. In accordance with its Conditional Use Permit, WMMI must update the closure and reclamation cost estimate every five years, at minimum. As verification, WMMI provided copies of the Financial Assurance Cost Estimates for years 2016 and 2017 along with associated regulatory agency correspondence for years 2015, 2016, 2017 and 2018.

Three “Reclamation Bonds”, held jointly by Imperial County and BLM, provide financial assurance for a variety of reclamation activities, including earthwork, building demolition and revegetation. Additionally, two “Closure Bonds”, one held by RWQCB and one by BLM, provide financial assurance for treatment of process solution and other work to eliminate the risk of pollution (primarily to groundwater), which would include decommissioning of cyanide facilities. Finally, two miscellaneous bonds provide financial assurance related to occupancy (under a lease agreement) of California state lands and the stabilization of open pits by buttressing activities.

In its January 2018 approval letter of the 2017 Financial Assurance Cost Estimate, Imperial County instructed WMMI to revise the existing financial mechanism to cover the 2017 estimate and to provide the county with an original copy of the revised mechanism or rider. This documentation was not yet available for review during the field component of this ICMC recertification audit. Nonetheless, pending securement of the new financial mechanism, the amount of the two Closure Bonds currently posted, for treatment of process solution and other work to eliminate the risk of pollution, is greater than the amount calculated in the 2017 estimate.
6.0 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.

The operation is in ☑ Full Compliance with Standard of Practice 6.1.

☐ Substantial Compliance

☐ Non-Compliance

Discussion of the basis for this Finding and any Identified Deficiencies:

WMMI implements procedures describing how cyanide-related tasks are to be conducted. These procedures cover cyanide-related tasks such as, but not limited to, offloading cyanide, plant and pond operations, and maintenance activities that involve the cyanide solution circuits. Additionally, WMMI implements a Confined Space Program for confined space entry requirements at the mine, including the process areas where cyanide is managed, and procedures to address equipment decontamination prior to maintenance. These procedures document equipment/PPE requirements, potential health and safety hazards, and operator instructions.

WMMI conducts inspections at the beginning of each shift, which include checking operation of showers and eyewashes, equipment condition, solution leaks and so forth. Prior to each offload of cyanide, the delivery driver performs an inspection of the offload facilities, which includes housekeeping, shower/eyewash stations, fire extinguishers, cyanide mix pump, tanks, valves, hoses, pipes, and PPE.

Over this ICMC audit cycle, WMMI has implemented various procedures to review proposed process and operational changes and modifications for their potential impacts on worker health and safety, and incorporate the necessary worker protection measures. WMMI implemented a new change management process in July 2015, which requires a risk assessment, assignment of action items, and approvals by the Health & Safety and Environmental departments for all changes, regardless of risk. As verification of implementation, WMMI provided change management documentation for the new barren solution and caustic tanks, the new derrick screen and for increasing cyanide concentrations in the barren solution on two occasions.

In 2014, WMMI implemented the Incident Reporting and Correction Action Program (“IRCAP”). As one component of IRCAP, WMMI has installed locked suggestion boxes around the mine offices, in which employees, visitors and contractors can enter IRCAP Forms documenting incidents and related suggestions for corrective actions and other comments. Persons filling out the cards have the choice to identify themselves or remain anonymous. Next to the suggestion boxes, WMMI posts a summary of suggested actions and actions taken. WMMI personnel also
indicated that annual refresher training and routine safety meetings provide additional opportunities for workers to provide input.

**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 Standard of Practice 6.2.

**Discussion of the basis for this Finding and any Identified Deficiencies:**

WMMI controls the pH levels in process solutions by adding sodium hydroxide (caustic) solution at the Cyanide Mix Tank and by adding lime to the ore prior to loading it onto the heap leach pads. WMMI personnel indicated that generally, the targeted pH levels for limiting the evolution of HCN gas are 12.0 during offloading and mixing activities and 10.4 for barren solution going to the leach pads. The pH level for pregnant solution returning from the leach pads is roughly 9.5. During this 2018 ICMC recertification audit, the auditor spot-checked production reports over the period 2015 through 2017 to verify that the actual pH levels maintained in the process circuit are within the targeted range.

The Mesquite operation has three fixed HCN monitors installed at the CIC Plant where HCN gas generation has been determined to be a potential concern. Two monitors are located at the offload area; one next to the cyanide distribution tank and one next to the antiscalant tank. In December 2017, WMMI installed the third monitor at the Barren Tank near the three centrifugal barren solution pumps. The fixed systems are each equipped with visual (red strobe light) and audible (siren) alarms. The red strobe triggers at 2.0 parts per million ("ppm") and the strobe and siren both trigger at 4.0 ppm. Standard procedure is to evacuate the area when the audible alarm sounds and investigate when it is safe and after waiting 20 minutes.

Additionally, the Mesquite operation currently has 27 personal, portable HCN gas monitors. WMMI Process personnel wear the portable monitors during their entire work shift, programmed to alarm when HCN gas concentrations reach 2.5 ppm. A second stage alarm triggers when HCN gas concentrations reach 4.7 ppm. During cyanide offloads, the delivery driver and WMMI spotter each wear portable monitors.

WMMI subscribes to a sensor exchange, whereby every three months, WMMI receives factory-calibrated sensors to replace the current sensors in fixed HCN gas monitors. Factory-trained personnel calibrate the sensors using appropriate equipment and procedures. Following installation of each calibrated sensor, WMMI performs a bump test. Prior to using the portable HCN gas monitors, WMMI performs bump tests each shift. The docking station automatically performs routine calibrations as required every 30 days. During this 2018 ICMC recertification audit, the auditor reviewed calibration records for both the fixed and personal monitors for the preceding 12 months.
WMMI has installed signs advising workers that cyanide is present and of the associated dangers. During the field component of this 2018 ICMC recertification audit, the auditor observed the placement of warning signage to be generally good. Cyanide warning signs are posted at the main gate; at the CIC Plant and cyanide offload and storage facilities, including on piping, tanks and vessels; and at strategic locations along roads leading to the heap leach pads, process pipeline containment channels and the process ponds. Signs prohibiting eating, drinking and smoking are posted at the cyanide offload and storage facilities and at the CIC Plant. Cyanide storage and process tanks and piping are labeled and/or painted to alert workers of the contents and flow directions.

In addition to signage, the cyanide-related procedures document equipment/PPE requirements, and with few exceptions, prohibit smoking, tobacco, eating and drinking. Annual refresher training also addresses the requirement for no eating, drinking or smoking in cyanide use areas.

During the field component of the 2018 ICMC recertification audit, there were three emergency shower stations located at the CIC Plant; at the west end of the cyanide offload and storage facilities next to the caustic storage tank, at the east side of the Barren Tank and at the east end of the 3-ton carbon column train. Each shower station is connected to a freshwater circuit and equipped with an eyewash unit. The auditor observed five additional self-contained, portable eyewash units located throughout the CIC circuit area, including on each end of the upper decks of the carbon columns. A self-contained portable eyewash unit is also located at the process ponds. Process operators check the units daily (each shift) during routine inspections. The auditor spot-checked the showers and several eyewash stations, and those checked were functioning properly.

The fire extinguishers spot-checked at the CIC Plant were Purple K / Dry Chemical and the units observed had current inspection tags and were easily accessible. Only dry units are located where cyanide is handled. WMMI checks fire extinguishers daily (each shift) during routine inspections. Additionally, WMMI inspects the hydrants more thoroughly each month. Records were available covering inspections conducted over this audit cycle.

WMMI maintains Safety Data Sheet ("SDS") information electronically using a chemical management software application. SDS information for on-site chemicals is available to all employees site wide, 24-hours per day, via the WMMI intranet. SDS information is in English, the language of the workforce. Additionally, hardcopy SDS is available in the CIC Plant control room, the Process Department offices, the lab and the Refinery control room. First Aid procedures for treating cyanide exposure caused by inhalation, swallowing and skin absorption are posted on signs at the CIC Plant and at the cyanide offload and storage facilities.

WMMI implements IRCAP to administer incident reporting and investigation processes. The program defines training requirements, assigns responsibilities to supervisors, managers, the Incident Investigation Team, the Health & Safety Department, and the General Manager, and provides the procedure for investigating and evaluating incidents with the intent to determine root causes, appropriate corrective actions and effectiveness of remedial or control measures implemented.
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 Standard of Practice 6.3.

Discussion of the basis for this Finding and any Identified Deficiencies:

The Mesquite operation has four cyanide antidote kits, located in process areas, the on-site laboratory and the on-site Mine Emergency Response Vehicle (“MERV1”). The kits are stored in locked, glass-front cabinets within temperature-controlled environments. Each kit includes amyl nitrite ampoules, a Nithiodote™ kit (intravenous Sodium Nitrite and Sodium Thiosulfate) and activated charcoal. WMMI stores medical oxygen with resuscitators in dedicated carrying cases, with each cyanide antidote kit. Potable and/or bottled water and emergency shower and eyewash stations are available at or nearby the antidote kit locations.

The WMMI Health & Safety Department conducts monthly inspections of the cyanide antidote kits to verify that the antidotes, oxygen, and supplies are stocked, operational and within expiry dates, and replaces the items as needed. The auditor inspected the antidote kits located at the CIC Plant, Desorption Plant and laboratory, and in the ambulance. The antidotes, oxygen, and supplies were stocked, operational and within expiry dates. The Mine Emergency Response Team (“MERT”) members perform routine inspections of emergency response equipment and assessments of emergency response capabilities and preparedness. Inspections cover equipment and first aid/rescue supplies.

The primary means of communication while on site is the radio system. Process operators and supervisors carry radios and each vehicle is equipped with a radio. Additionally, the CIC Plant control room has a landline telephone and cellular telephones are accessible, if needed. WMMI escorts cyanide delivery drivers in and out of the mine site and a WMMI Process operator stays with the driver throughout the offload process.

The WMMI ERP provides first aid response and symptoms. First aid procedures include cases of inhalation, swallowing and skin absorption for victims fully conscious, unconscious and not breathing. Procedures also include proper administration of amyl nitrite in cases where the victim is breathing or not breathing. The ERP also contains response procedures beyond first aid including contacting offsite ground and air ambulance services. Additionally, WMMI has posted signs at the CIC Plant and the cyanide offload and storage facilities, which alert personnel of cyanide and provide instruction regarding recognition and treatment of cyanide overexposure.

Environmental, Process and Health & Safety personnel receive cyanide-related first aid training via an online course developed by Chemours. MERT members are routinely trained on first aid and response procedures, and cyanide-related scenarios are enacted at least once per year. At minimum, two MERT members are available for
response on each rotating 12-hour shift. Additionally, WMMI maintains a fully equipped ambulance (MERV1) on site for use during first response and for transporting victims to outside medical help.

WMMI maintains open dialogue with local medical facilities regarding the potential need to treat patients for cyanide exposure. WMMI recently refreshed written correspondence with Pioneer Memorial Hospital, to formally notify the hospital of the potential need to treat cyanide exposure victims from the Mesquite operation and to confirm that the hospital has adequate and qualified staff, equipment and expertise to treat such patients.

The New Gold “Crisis Management Plan” requires that simulations and mock scenarios be conducted periodically. The drills are to be planned at the corporate offices and site locations. Desktop exercises are to be conducted annually and full Crisis Simulations are to be conducted every two years in conjunction with the site. WMMI provided records from three Crisis simulations performed over this ICMC audit cycle, one for each year. The simulations included a major earthquake, a vehicle accident and a 100-year rainfall event with power outages. The drill reports list the corrective actions and completion dates for each. Additionally, WMMI conducted one cyanide-related mock emergency drill over this ICMC audit cycle to test response procedures for a cyanide exposure and release scenario and to determine if its procedures are adequate and if personnel are trained properly. The drill involved the rupture of the distribution pipe at the cyanide storage tank causing a Plant Operator to become soaked with reagent-grade cyanide and the release of cyanide solution outside of secondary containment. WMMI provided the final drill report, which lists the corrective actions and completion dates for each.
7.0 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.

The operation is in [ ] Full Compliance [ ] Substantial Compliance [ ] Non-Compliance with Standard of Practice 7.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

The WMMI Health & Safety and Environmental departments administer the Mesquite Mine ERP to address emergency response and mitigation measures, which include response procedures for potential accidental cyanide releases and exposures. The primary objectives of the ERP are to provide for an effective response to emergencies; minimize the effect on personnel and surrounding communities; minimize property and equipment losses; coordinate interdepartmental responses; ensure the cooperation of outside agencies; and provide for the release of accurate information to the public. WMMI couples its ERP with the New Gold corporate “Crisis Management Plan”. Implementation of the “Crisis Management Plan” is required when an incident of significant magnitude threatens to overwhelm the resources of and/or has far-reaching consequences for the company based on specific criteria. The ERP complements the “Crisis Management Plan” to provide emergency and first responder services at the incident location.

The current version of the ERP (dated February 2017) provides standard response guidelines for chemical releases, including cyanide, which have the potential to occur at the Mesquite Mine. Cyanide release scenarios discussed include release of high-strength and low-strength cyanide process solution and spills of solid cyanide. The ERP also includes first aid response procedures for cyanide exposure scenarios.

The ERP does not specifically address catastrophic releases of HCN gas from storage or process facilities or releases of cyanide from transportation accidents. Catastrophic releases of HCN gas from storage or process facilities are not reasonably expected to occur at the Mesquite Mine, as all process facilities (with the exception of the refinery) are open-air. Pursuant to statutory obligations regarding Cal/ARP, WMMI completed a Risk Management Plan to evaluate impacts to off-site public receptors from potential cyanide release scenarios and determined that the endpoint for potential impact from a worse case release of HCN gas was well within the Mesquite Mine perimeter boundary. The ICMC-certified cyanide supplier (Chemours) is responsible for emergency response throughout transport, and Chemours’ ICMC-certified transporter (Quality Carriers) carries a copy of Chemours’ emergency
response plan. WMMI does not employ cyanide treatment, destruction or recovery systems; therefore, failure of these systems does not apply to the Mesquite Mine.

The Mesquite Mine ERP provides procedures for emergency evacuation. Each WMMI department has a pre-designated and alternate assembly area in the case of an evacuation, and all personnel, vendors and/or contractors must check in with the area supervisor at the designated assembly location. The ERP also contains maps depicting evacuation routes and assembly areas for the various facilities and buildings. The Incident Commander is responsible for determining if the incident could threaten human health or the environment outside the facility. If the assessment indicates that evacuation of local areas may be advisable, the Emergency Coordinator shall immediately notify appropriate local authorities (i.e., the Imperial County Sheriff’s Office).

**Standard of Practice 7.2**

*Involve site personnel and stakeholders in the planning process.*

- **Full Compliance**
- **Substantial Compliance**
- **Non-Compliance**

**Discussion of the basis for this Finding and any Identified Deficiencies:**

The Mesquite Mine site is remote with limited off-site communities located nearby that could potentially be affected by a cyanide release. Off-site residences include the California towns of Holtville (27 miles away) and Brawley (32 miles away), both southwest/west of the site. The Glamis Dunes recreational area and the Glamis Beach Store are located approximately six miles southwest of the site alongside U.S. Highway 78. The Mesquite Regional Landfill facility, operated by Los Angeles County, is located along the southwest perimeter boundary of the Mesquite Mine near the main entrance gate. Nonetheless, the landfill facility is located over one mile away from any on-site cyanide facilities and has been unoccupied and non-operational since its construction except for monthly inspections and quarterly visits by landfill personnel. During this 2018 ICMC recertification audit, WMMI personnel indicated that they meet regularly with Mesquite Regional Landfill representatives (quarterly or annually depending on availability) and provided meeting minutes as verification.

WMMI conducts Emergency Service Meetings annually with Gold Cross Ambulance Service, REACH and the Brawley Fire Department. The meetings serve to coordinate response services and associated training between WMMI and outside responders. During this 2018 ICMC recertification audit, WMMI provided records of meetings held with the Imperial County Sheriff’s Office in 2016, REACH Air Medical Services in 2016, Clinicas De Salud Del Pueblo, Inc. (Community Health Center in Brawley) in 2017, Gold Cross Ambulance Service in 2016 and 2017 and the Brawley Fire Department in 2017.

WMMI involves site personnel and stakeholders in its response planning process via routine MERT training, implementation of IRCAP, and through various outreach programs. WMMI conducted a Cyanide Stakeholders Planning Meeting on September 13, 2017.
Meeting in July 2014, in which Chemours provided training to WMNI employees and outside stakeholders as part of WMNI’s community outreach program. Community members in attendance included representatives from the Pioneer Memorial Hospital, El Centro Regional Hospital, El Centro BLM and Imperial County Police Department, and WMNI extended invitations to other stakeholders as well. WMNI recently sent out invitations to an upcoming Cyanide Stakeholders Meeting scheduled for February 21, 2018. WMNI personnel indicated that, as a component of its Hazardous Materials Business Plan, WMNI provides the Department of Toxic Substance Control [Imperial County, Local Certified Unified Program Agency (“CUPA”) Office] with a copy of the Mesquite ERP, which in turn, maintains centralized data accessible to outside responders. Finally, WMNI provides the public with opportunities to communicate issues of concern through various other means (see ICMC Standard of Practice 9.1 below).

Emergency response procedures developed for the Mesquite Mine do not designate any responsibilities to outside communities. The Imperial County Sheriff’s Office is the primary contact for outside responders. Once contacted by WMNI, the Sheriff’s Office will contact their contracted Ambulance Service, the Imperial County Fire Department or Air Ambulance Service for activation and response. Nonetheless, the ERP provides contact information for local outside responders, including ambulance services (ground and air), fire services, California Highway Patrol, Chemours, Cyanco, medical facilities (in Brawley and Yuma), and the Poison Control center. Additionally, the ERP provides contact information for appropriate federal, state and local agencies and emergency services.

Standard of Practice 7.3

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

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in Full Compliance with Standard of Practice 7.3.

**Discussion of the basis for this Finding and any Identified Deficiencies:**

The ERP and “Crisis Management Plan” identify emergency response roles as well as appropriate response and remediation equipment. The ERP establishes an Incident Command System, which is an organized system of roles, responsibilities, standard operating procedures and guidelines used to manage and direct emergency operations to respond and mitigate emergency incidents. The ERP designates Incident Commanders and technical advisors for anticipated emergencies at the site, and their associated responsibilities are described under the standard operating procedures for various emergency incidents. The Incident Commander, his or her designee, or the Acting Incident Commander will contact outside agencies or personnel for assistance.

WMNI has established a standing MERT designated to respond to all major emergencies. The MERT comprises employees who receive special training in mine emergency response activities and functions as the primary
responders to all emergencies. At the time of this recertification audit, WMMI had approximately 21 MERT members trained to respond to cyanide exposures. All on-duty members of the team respond upon notification, and at minimum, two team members are available for response on each rotating 12-hour shift. In accordance with the ERP, MERT personnel receive monthly training on emergency response medical procedures, on effective firefighting techniques using WMMI equipment, on basic rescue procedures, and on hazardous material first responder operations. Additionally, MERT personnel periodically participate in incident enactments to prepare and train for potential emergency incidents, in evaluation and assessment processes, and in development and implementation of procedures and practices.

The ERP provides an Emergency Notification Procedure, including an Emergency Cell Phone Procedure in the event that the mine site experiences failure of the landline telephone system. The procedures includes both telephone and radio contact information.

The ERP lists “Mine Emergency Response Equipment” and “Emergency Spill Response Equipment” and the locations of the equipment. The spill response equipment list includes PPE locations. MERT members perform routine inspections of emergency response equipment and assessments of emergency response capabilities and preparedness.

WMMI has recently provided a letter to Pioneer Memorial Hospital notifying the hospital that it could potentially be asked to treat cyanide exposure victims from the Mesquite operation and that WMMI understands that the hospital has adequate and qualified staff, equipment and expertise to treat such patients. The letter also explained that WMMI has antidote supplies on hand, which would accompany any potential victim transported to the hospital.

Standard of Practice 7.4

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

The operation is in [ ] Full Compliance [ ] Substantial Compliance [ ] Non-Compliance with Standard of Practice 7.4.

Discussion of the basis for this Finding and any Identified Deficiencies:

The ERP provides procedures for incident reporting and investigation, including internal and external emergency notification to management personnel, outside responders, and federal, state and local regulatory agencies and emergency services. Detailed contact lists for these entities are provided in the ERP. The “Crisis Management Plan” provides the roles, responsibilities, and contact information for the Crisis Management Team.

The Mesquite Mine site is remote with limited off-site communities located nearby, which could potentially be affected by a cyanide release (see ICMC Standard of Practice 7.2 above). Therefore, other than for outside
responders and the media, the ERP does not provide procedures and/or contact information for notifying potentially affected communities of cyanide-related incidents. The Imperial County Sheriff’s Office is the primary contact for outside responders. Once contacted by WMMI, the Sheriff’s Office will contact their contracted Ambulance Service, the Imperial County Fire Department or Air Ambulance Service for activation and response.

Only the Incident Commander, his or her designee, or the Acting Incident Commander will contact outside agencies or personnel for assistance. The Vice President/General Manager is responsible for handling all public informational needs, including coordination with 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 | ☐ Substantial Compliance with Standard of Practice 7.5. | ☐ Non-Compliance |

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Cyanide solution released outside of containment would flow to soil in all cases, as there are there no surface water bodies located in the immediate vicinity of the operation and groundwater across the Mesquite Mine site ranges between roughly 180 to 250 feet deep. In the event of a cyanide solution release outside of concrete or lined secondary containment, WMMI would construct earthen berms to contain the released solution. Once contained, the solution would be pumped back into a concrete or lined containment area.

Following pumping, WMMI would implement its Environmental Policy, “Reporting a Spill/Material Release”, which defines the endpoint of the remediation for contaminated soils; including how samples will be taken, what analysis will be performed, and what final concentration will be allowed in residual soil as evidence that the release has been completely cleaned up. In accordance with this policy, impacted soils would be sampled and all contaminated materials excavated and placed on the heap leach pads. For small spills, WMMI indicated that the contaminated soils would be excavated completely (i.e., dig to dry). Any adsorbents and containment materials used would be placed into barrels for off-site disposal.

WMMI personnel stated that a release from the operation could not reasonably adversely impact drinking water, as there are no drinking water supplies located nearby the Mesquite site. WMMI has three off-site wells located approximately three miles away on the south side of Highway 78, which are used for potable water and no other public wells are located nearby. The ERP limits remediation measures to soil excavation and removal (neutralizing agents are not used). The ERP or other procedures do not prohibit the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water, as there are no surface water bodies located in the immediate vicinity of the operation.
In accordance with the RWQCB Monitoring and Reporting Program, WMMI must report any accidental seepage, spillage, leakage, or release of “waste material” from the designated area within 48 hours after discovery and file a written with the RWQCB within seven days characterizing the discharge and describing corrective measures underway or proposed. If WMMI concludes that a release has occurred, it must take steps to perform monitoring and submit a Revised Report of Waste Discharge proposing an Evaluation Monitoring Program within 90 days, and submit a preliminary engineering feasibility study within 180 days for remediation.

**Standard of Practice 7.6**

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

<table>
<thead>
<tr>
<th>Option</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Compliance</td>
<td>The operation is in Full Compliance with Standard of Practice 7.6.</td>
</tr>
<tr>
<td>Substantial Compliance</td>
<td></td>
</tr>
<tr>
<td>Non-Compliance</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

As stated in the ERP, the Health & Safety Department and the Environmental Department coordinate to update the ERP as needed. WMMI personnel indicated that the ERP is reviewed annually and revised as warranted, as a component of the Hazardous Materials Business Plan. Additionally, in accordance with the New Gold “Crisis Management Plan”, the Crisis Coordinators are responsible for ensuring that the “Crisis Management Plan” and the ERP are reviewed annually and revised as necessary. The ERP was initially developed in December 2007 with the most recent update occurring in February 2017. New Gold last revised the “Crisis Management Plan” in November 2017.

WMMI conducted one cyanide-related mock emergency drill over this ICMC audit cycle to test response procedures for a cyanide exposure and release scenario and to determine if its procedures are adequate and if personnel are trained properly. The drill involved the rupture of the distribution pipe at the cyanide storage tank causing a Plant Operator to become soaked with reagent-grade cyanide and the release of cyanide solution outside of secondary containment. The scenario included a MAYDAY call, response to an exposure victim in both conscious and unconscious states, deployment of the MERV and use of the cyanide antidote kit, loading of the victim onto a gurney and transport to the front gate. No outside responders participated in the drill.

The Health & Safety and/or Environmental departments are responsible for ensuring that an incident investigation is conducted following all emergencies. In accordance with the ERP, WMMI will investigate the incident as soon as possible following its occurrence. The investigation will focus on determining the root cause(s) of the incident and possible procedural or system modifications required to prevent a reoccurrence. Additionally, the Health & Safety and/or Environmental departments and department managers are responsible for conducting a detailed assessment following an incident. The major emphasis of this assessment is to determine any damage to facilities,
safety hazards, and actions necessary to minimize further damage, and repairs that must be initiated to restore the facility to operational use.

Critiques of incidents are required to review what actions took place during the incidents, both good and bad. Critiques are designed to allow for the flow of ideas and recommendations to improve the ERP and the operation’s response policies and guidelines. An employee-debriefing meeting will be held to inform personnel about the events of an emergency and any hazards that may remain on the facility property following an incident. During this 2018 ICMC recertification audit, WMMI personnel indicated that no actual emergency incidents have occurred since the 2014 ICMC verification audit, which triggered the review/investigation process established by its ERP.

Additionally, WMMI developed and implemented IRCAP for the purpose of administering incident reporting and investigation processes. Under IRCAP, an incident is defined as “an event which results in harm or loss to persons, property, production or the environment, or where under slightly different circumstances (Near Miss) harm or loss may have occurred”. The program defines training requirements, assigns responsibilities to supervisors, managers, the Incident Investigation Team, the Health & Safety Department, and the General Manager, and provides the procedure for investigating and evaluating incidents with the intent to determine root causes, appropriate corrective actions and effectiveness of remedial or control measures implemented.
8.0 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.

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>Substantial Compliance</th>
<th>Non-Compliance</th>
</tr>
</thead>
</table>

Discussion of the basis for this Finding and any Identified Deficiencies:

WMMI trains all employees in cyanide awareness as part of new hire and annual refresher training. All new hires and contractors are required to take an online training course developed by Chemours (General Cyanide Overview). The course covers cyanide awareness, cyanide compounds, routes of exposure, PPE, symptoms and prevention. Environmental, Health & Safety and Process personnel receive additional cyanide first aid training via an online course developed by Chemours (First Aid for Cyanide Exposure). The course covers responding to exposures, supplies and equipment, rescuer responsibilities, inhalation, ingestion, skin absorption and medical treatment. To complete the courses, students must score 100 percent on the exam.

The “Mesquite Mine Cyanide Safety Program” policy applies to all employees, contractors, vendors and visitors who have a potential for cyanide exposure, with the purpose to prevent and protect against cyanide-related injury and illness. In accordance with this policy, employees working with or handling cyanide in any form must first receive training in safe handling and first aid procedures, and must remain under the observation of a similarly trained employee while such operations are in progress. Additionally, all delivery personnel receive orientation training, which includes the location of cyanide antidote kits, the function of cyanide monitors and alarms, and evacuation procedures. WMMI addresses the requirements of this policy in new hire and annual refresher training.

In addition to the Chemours online course, contractors working in cyanide areas receive site-specific training. WMMI supervisors provide cyanide awareness training and conduct a walkthrough of the area to introduce contractors to the cyanide facilities, safety shower and eyewash stations, and controls.

WMMI provides periodic refresher training regarding cyanide safety in conjunction with required Mine Safety and Health Administration (“MSHA”) annual refresher training. Additionally, Chemours provides general cyanide awareness and cyanide first aid and medical response training annually to WMMI Environmental, Health & Safety
and Process personnel. A Chemours representative comes to the site to conduct this hands-on training. Periodic training for all supervisors also includes cyanide awareness and first aid.

WMMI uses sign-in sheets and MSHA Form 5000-23 as documentation of cyanide awareness, first aid and refresher training. The annual cyanide training provided by Chemours is documented by the sign-in sheets and agendas. In addition to the sign-in sheets and MSHA forms, personnel files contain a listing of all training completed over the duration of employment. The auditor reviewed personnel files to verify that employees receive required training and that records are retained.

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.*

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>Full Compliance</th>
<th>with Standard of Practice 8.2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>--------------------</td>
<td>-----------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>Substantial Compliance</td>
<td>Non-Compliance</td>
</tr>
</tbody>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

WMMI requires completion of SOP “task training” forms for cyanide-related (and non cyanide-related) work tasks. The forms document training dates and signatures of instructors and trainees. The initial training does not authorize trainees to perform the associated work tasks unsupervised; however, the trainee must complete the training requirements and receive an MSHA Form 5000-23 before performing the tasks unsupervised. This task-specific training supplements the cyanide safety training provided to all employees.

The task training forms for cyanide-related SOPs identify the important elements necessary for each job. Additionally, WMMI implements a “Part 48 Training Plan” required by MSHA under the Code of Federal Regulations (“CFR”); i.e., 30 CFR, Part 48 (Surface). This plan identifies approved instructors and tasks covered under the different training programs (i.e., annual refresher, new miner, experienced miner, and task and hazard training).

The WMMI Lead Plant Operator provides the required task training, which includes review of the related SOP and hands-on demonstration, prior to new employees performing a work task unsupervised. The current Lead Plant Operator has worked at the Mesquite Mine since 1990 and is certified by MSHA as a qualified trainer. He also has Red Cross certifications in first aid, CPR and AED.

WMMI provides task-related refresher training if workers change jobs/areas. Workers receive training on the associated SOP and spend time with the Lead Operator until familiar with the task. Additionally, if an SOP changes for any reason, workers receive new training on the task and related changes.
WMMI does not employ a formal examination or testing procedure (i.e., written exams or quizzes) for evaluating effectiveness of task-related training. However, WMMI administers testing to evaluate the effectiveness of cyanide awareness and first aid training via the online Chemours training courses. Furthermore, under its Key Performance Index, WMMI implements an “Employee Contact / Job Task Observation” program whereby supervisors are required to perform “Field Level Risk Assessments” and observe employees performing job tasks, four times each month. The Job Task Observation cards document the person initiating the contact; the employee contacted; conditions/practices observed; actions taken, recommended or required; lessons learned, and follow up actions and completion dates. WMMI also completes “Safe Work Plans” before beginning any non-routine activity, in which the potential may exist for harm to people, property, environment, business, or reputation; and for which an SOP is not available.

The Health & Safety Department manages and maintains training records for all employees. Each employee file contains a history of training completed over the duration of employment. WMMI documents training via task training forms for SOPs and MSHA 5000-23 forms. The training records include the name of the trainer, date of training and topics covered. As verification, the auditor reviewed the personnel files for the Lead Plant Operator (employed 1990 – present) and a Plant Operator (employed 2014 – present).

**Standard of Practice 8.3**

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

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in Full Compliance with Standard of Practice 8.3.

**Discussion of the basis for this Finding and any Identified Deficiencies:**

The protocol for responding to cyanide releases and exposures is for workers witnessing the event to secure the area and notify their immediate supervisor. Any employee discovering a situation that escalates beyond a minor incident, injury or illness will at once report it to his/her supervisor who will then take charge of the scene. Upon identification of a major incident, an employee, vendor and/or contractor will initiate the emergency call-out procedure.

MERT members function as the primary responders to all emergencies. The Health & Safety Department administers the MERT training programs using both company and outside resources. In accordance with the ERP, MERT personnel receive monthly training on emergency response medical procedures, on effective firefighting techniques using WMMI equipment, on basic rescue procedures, and on hazardous material first responder operations. Additionally, MERT members are routinely trained on first aid and response procedures, and cyanide-related scenarios are enacted at least once per year. Finally, MERT members receive annual refresher training,
which includes emergency response and first aid. As a first line of defense, Process personnel and MERT members are trained to administer amyl nitrite ampoules with oxygen. The annual cyanide training provided by Chemours, includes comprehensive hands-on first aid training for cyanide exposures including chemical decontamination. Chemours provides this training to all Process personnel, and in 2017, approximately 66 WMMI employees attended the training course.

Emergency response procedures developed for the Mesquite Mine do not designate any responsibilities to outside communities. Due to the remote setting of the Mesquite Mine, WMMI expects to be the primary responder for all types of incidents, and as per the Emergency Notification Requirements for the Mesquite Mine, WMMI would request outside resources as needed. The Imperial County Sheriff’s Office is the primary contact for outside responders. Once contacted by WMMI, the Sheriff’s Office will contact their contracted Ambulance Service, the Imperial County Fire Department or Air Ambulance Service for activation and response. For easy reference during an emergency, the ERP provides latitude and longitude coordinates for the Mesquite Mine heliport and for each open pit area.

WMMI conducts Emergency Service Meetings annually with Gold Cross Ambulance Service, REACH and the Brawley Fire Department. The meetings serve to coordinate response services and associated training between WMMI and outside responders (see ICMC Standard of Practice 7.2 above). WMMI also conducts routing Cyanide Stakeholders Meetings, in which Chemours provides Cyanide Awareness Training to outside entities as part of WMMI’s program to coordinate response planning with outside responders (see ICMC Standard of Practice 7.2 above).

MERT personnel also participate in periodic drills to prepare and train for potential emergency incidents, which include cyanide exposures and releases (please see ICMC Standard of Practice 6.3 above). WMMI conducted one cyanide-related mock emergency drill over this ICMC audit cycle to test response procedures for a cyanide exposure and release scenario and to determine if its procedures are adequate and if personnel are trained properly. No outside responders participated in the drill.

WMMI provided documentation demonstrating that it retains records of the emergency response training provided, as discussed above. MERT training records include the name of the trainer, date of training, an attendance roster, topics covered, and roundtable discussion and debrief notes. The cyanide training provided by Chemours is documented by meeting agendas and attendance rosters.
9.0 DIALOGUE

Engage in public consultation and disclosure.

Standard of Practice 9.1

Provide stakeholders the opportunity to communicate issues of concern.

- Full Compliance
- Substantial Compliance
- Non-Compliance

The operation is in [ ] Full Compliance [ ] Substantial Compliance with Standard of Practice 9.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

WMMI employs a full-time Community Relations Manager to ensure that WMMI remains actively engaged in the local and regional community, and serves as the primary point of contact with respect to inquiries or complaints regarding the operation. WMMI provides several means for stakeholders to communicate issues of concern regarding cyanide use and management at the Mesquite Mine, including: hosting periodic Cyanide Stakeholders Meetings, which include Cyanide Awareness Training conducted by Chemours; giving regular presentations to civic-oriented groups, such as rotary clubs and the Kiwanis; hosting and participating in career fairs; providing tours of the Mesquite operation to WMMI family members; and publishing advertisements in local newspapers, which provide WMMI contact information and solicit comments, suggestions and questions.

The New Gold website states, “The Mesquite mine is a long-standing member of the local community, and we strive to maintain our strong reputation while forging new relationships with key decision makers. We have ongoing outreach efforts with the community, and provide informational programs for community organizations, service clubs and schools. We make regular community presentations to maintain a two-way dialogue with our local stakeholders. We remain in regular contact with federal and state regulators, regional mining and mineral enthusiasts, and community-based organizations.”


Additionally, New Gold implements an External Complaint Flow Management Procedure. Using this protocol, WMMI ensures prompt follow-up by qualified personnel regarding complaints filed by external stakeholders. Complaints are assessed, investigated, resolved and communicated within 30 days of receipt. Finally, the public review process offered by federal, state and county permitting processes solicits input from affected communities and stakeholders regarding all aspects of the operation.
Standard of Practice 9.2

*Initiate dialogue describing cyanide management procedures and responsively address identified concerns.*

- **Full Compliance**
- [ ] Substantial Compliance
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Please see ICMC Standard of Practice 9.1 above. The meetings, presentations, tours and local advertisements discussed, provide regular and ample opportunities for stakeholders to interact with WMMI personnel and obtain information regarding cyanide management practices and procedures. WMMI conducted a Cyanide Stakeholders Meeting in July 2014. During the meeting, Chemours provided training to WMMI employees and outside stakeholders as part of WMMI’s community outreach program. WMMI recently sent out invitations to an upcoming Cyanide Stakeholders Meeting scheduled for February 21, 2018.

Additionally, WMMI conducts Emergency Service Meetings annually with Gold Cross Ambulance Service, REACH and the Brawley Fire Department. The meetings serve to coordinate response services and associated training between WMMI and outside responders (please see ICMC Standard of Practice 7.2).

Standard of Practice 9.3

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

- **Full Compliance**
- [ ] Substantial Compliance
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Available via the New Gold website, the Mesquite Mine relies primarily on the New Gold annual Corporate Responsibility Reports for disseminating written descriptions to communities and other stakeholders regarding its management of cyanide and cyanide-related practices.

The 2016 Corporate Responsibility Report mentions the use of cyanide and certification of the Mesquite Mine under the ICMC. Additionally, the report generally discusses the use of cyanide and cyanide management and discloses cyanide consumption rates, cyanide-related wildlife mortalities and cyanide spills that have occurred over the reporting period. However, the report does not necessarily provide an educational overview of cyanide-related activities and management practices. Nonetheless, the written regulatory permits and permit applications associated with the Mesquite Mine provide detailed descriptions of all aspects of the operation and are public
record. Additionally, as a signatory company to the ICMC, WMMI was initially certified under the Code in October 2011 and recertified in February 2015. The summary reports for these audits are available to the public via the ICMC website. The New Gold website advertises that the company is signatory to the Code and that the Mesquite Mine is certified.

Although WMMI has demonstrated compliance under this ICMC Standard of Practice regarding development and dissemination of written descriptions of its cyanide management practices, the auditor recommended that WMMI consider creating a brochure (or other educational materials), describing its cyanide management practices and management safeguards, for dissemination at the mine office, at locations in local communities, at public forums or meetings, libraries, local government offices, on websites, or through other means.

According to the National Center for Educational Statistics, as of 2003, approximately 41 percent of Imperial County residents lacked basic prose literacy skills (this includes “those who could not be tested due to language barriers”). Nonetheless, WMMI disseminates information in verbal form via open meetings, presentations, tours and civic events, as discussed under ICMC Standard of Practice 9.1 above. Additionally, WMMI publishes advertisements in local newspapers, written in both English and Spanish, which provide WMMI contact information and solicit comments, suggestions and questions from outside stakeholders.

All cyanide releases over this ICMC audit cycle occurred on site and none resulted in significant adverse effects to health or the environment. Additionally, no cyanide exposure incidents occurred over this period. WMMI personnel indicated that the notification protocol in the ERP is designed to meet all appropriate regulatory reporting requirements (including timelines) that apply to a release.

WMMI reports all spills outside of containment to regulatory agencies, regardless of quantity. Regulatory spill limits are defined in the Waste Discharge Requirements and the Code of Federal Regulations. Any spill or release of a hazardous material that exceeds the reportable quantity limits requires immediate (verbal) notification of regulatory agencies, including the California Governor’s Office of Emergency Services, Imperial County Public Health Department, CUPA, RWQCB and BLM. Additionally, WMMI must submit a written summary to RWQCB within seven days of the verbal notice. According to regulations promulgated under the Comprehensive Environmental Response Compensation and Liability Act (“CERCLA”), release of a reportable quantity of a listed hazardous material to the environment in any 24-hour period requires immediate reporting to the National Response Center. Cyanide has a federal reportable quantity of 10 pounds.

During this ICMC recertification audit, WMMI provided the Final Release Reports prepared for four cyanide spills that occurred over this audit cycle. The reports include a telephone log documenting the agencies contacted, which include the California Governor’s Office of Emergency Services, Imperial County Public Health Department, CUPA, RWQCB and BLM.

Written reports submitted to regulatory agencies become public information. Contact information for the agencies and other sources referenced above, where the public can access information regarding cyanide releases or exposure incidents that may occur at the Mesquite Mine, is provided below for easy reference:
California Regional Water Quality Control Board, Colorado River Basin Region (RWQCB)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
Phone: (760) 346-7491
Website: [www.waterboards.ca.gov/coloradoriver](http://www.waterboards.ca.gov/coloradoriver)

Imperial County Public Health Department
935 Broadway Avenue, El Centro, CA 92243
Phone: (442) 265-1444
Website: [www.icphd.com](http://www.icphd.com)

California Certified Unified Program Agency (CUPA)
1001 "I" Street, P.O. Box 2815, Sacramento, CA 95812
Phone: (916) 327-9559
Website: [www.calepa.ca.gov/cupa](http://www.calepa.ca.gov/cupa)

Bureau of Land Management, El Centro Field Office (BLM)
1661 S. 4th Street
El Centro CA 92243
Phone: (760) 337-4400
Website: [www.blm.gov/ca](http://www.blm.gov/ca)

California Governor’s Office of Emergency Services
3650 Schriever Avenue
Mather, CA 95655
Phone: (916) 845-8510
Website: [www.caloes.ca.gov](http://www.caloes.ca.gov)

National Response Center
2100 2nd Street, SW
Washington, DC 20593-0001
Phone: (202) 267-2675 or toll free (800) 424-8802
Website: [www.nrc.uscg.mil](http://www.nrc.uscg.mil)
10.0 REFERENCES


WEBSITE REFERENCES

