SUMMARY AUDIT REPORT

for the October 2019
International Cyanide Management Code Recertification Audit

Prepared for:
Kinross Gold Corporation
Round Mountain Gold Corporation

Submitted to:
International Cyanide Management Institute
1400 "I" Street NW, Suite 550
Washington, D.C. 20005

FINAL
6 March 2020

Ramboll US Corporation
901 Fifth Avenue, Suite 2820
Seattle, Washington 98164 USA

www.ramboll.com

SUMMARY AUDIT REPORT

Name of Mine: Round Mountain Gold Corporation – Smoky Valley Common Operation

Name of Mine Owner: Kinross Gold Corporation

Name of Mine Operator: Round Mountain Gold Corporation (RMGC)

Name of Responsible Manager: Neil Jensen, General Manager

Address: Round Mountain Gold Corporation
#1 Smoky Valley Mine Road/ PO Box 480
Round Mountain, Nevada 89045

Telephone: +1 775 377-3207
Fax: +1 775 655-0093

E-mail: neil.jensen@kinross.com

Location detail and description of operation:

Round Mountain Gold Corporation (RMGC) currently operates the Smoky Valley Common Operation (SVCO) and Gold Hill Project (GHP), a large, conventional open pit heap leach and milling operation located in Nye County, Nevada, USA. The mine is located between the Toiyabe and Toquima mountain ranges, in the Big Smoky Valley, near the Town of Round Mountain and approximately 45 air miles northeast of Tonopah (Figure 1). The subdivision of Hadley, which houses many of the RMGC employees and contractors, is located approximately two miles to the southwest. The mine operates under a Mining Plan of Operations on lands managed by the U.S. Department of Interior, Bureau of Land Management (BLM) and the U.S. Department of Agriculture, Forest Service (USFS), as well as on private land owned by RMGC. Several small cattle ranches are located to both the north and south of the mine.

The mine is located in an arid climate and has an average annual precipitation of approximately 6.5 inches. There are no perennial surface water bodies; water flows are restricted to large storm events or rapid snowmelt conditions. Groundwater beneath the mine site ranges from 180 to 425 feet below ground surface.

The Round Mountain deposit contains diverse ore grades and mineralogical ore types, which dictate the applicability of various extraction processes employed. The mine operates two open pits in two distinct areas; the Round Mountain Pit (RMP) and the Gold Hill Pit (GHP).

Higher grade sulfide ore mined from the RMP Mountain Pit is processed by a mill using gravity, froth flotation, and cyanide leach circuit unit processes. A gross gold concentrate is produced

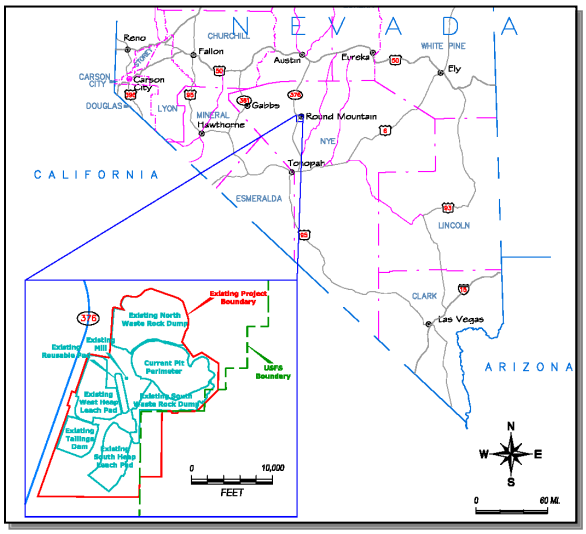
by the gravity circuit with the gravity tails being processed by froth flotation. The flotation concentrate is then combined with the coarse gold processing circuit tails and then treated in a carbon-in-leach (CIL) cyanide circuit. Approximately 96-97 % of total mill feed exits as gravity/flotation circuit tailings with the remaining 3-4 % exiting as leach circuit tailings. Both tailings streams are combined before exiting the mill. The mill leaching process includes an INCO© detoxification step that reduces Weak-Acid Dissociable (WAD) cyanide concentration to less than 10 ppm in the mill tailings, which are further diluted by combination with the gravity (non-cyanide) process tailings stream. The combined tailings stream is directed to a large, synthetic-lined tailings impoundment facility (TIF) comprising Cells A and B with embankment designs that incorporates a seepage collection and return system.

Higher-grade oxide ores mined from the Round Mountain Pit are crushed and placed on a reusable heap leach pad. After a mine pit wall failure in 2018 that took-out the secondary crusher the reusable pad is being stacked with run-of-mine ore until the crusher is replaced. Run-of-Mine, lower grade oxide ores from the pit are placed on the West Dedicated (WDED) and South Dedicated (SDED) heap leach pads and a newly constructed NDED leach pad. Ore on the leach pads is leached with sodium cyanide solution and gold and silver recovery is via Carbon-in-Column (CIC) and Vertical CIC (VCIC) circuits, and an adsorption, desorption and regeneration (ADR) plant.

The GHP deposit contains low-grade oxide ore, which is placed as Run-of-Mine ore on the Gold Hill Heap Leach Pad. The ore is leached with sodium cyanide solution and gold and silver recovery is via an ADR plant, which includes a CIC circuit. Gold and silver extracted at Round Mountain and Gold Hill is ultimately refined as Dore bullion.

The North Dedicated (NDED) Plant with VCIC and two VCIC plants incorporated into the SDED and WDED leach facilities are new developments associated with the Phase W expansion project. Under the original plan, the production life of the Round Mountain Mine was scheduled to end in 2027, with cessation of mining in 2019 and milling in 2022. Phase W extend the active mine life by up to 10 years, subsequently increasing the production life until 2035.

Figure 1. Site Location



SUMMARY AUDIT REPORT

Auditors' Finding

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

with the *International Cyanide Management Code.*

Other than two reportable spills RMGC has experienced no significant International Cyanide Management Code (ICMC) compliance issues since the previous audit.

Audit Company: Ramboll US Corporation
901 Fifth Avenue, Suite 2820
Seattle, Washington 98164 USA

Audit Team Leader: Clinton Phaal
e-mail: cphaal@ramboll.com

Names and Signatures of Other Auditors

Technical Auditor: John Lambert
e-mail: jlambert@ramboll.com

Date(s) of Audit: 7th to 11th October 2019

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the *International Cyanide Management Institute* for Code Verification Auditors. I attest that this Summary Audit Report (SAR) accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the latest version of the *International Cyanide Management Code Mining Operations Verification Protocol; Guidance for Recertification Audits for the International Cyanide Management Code, and* using standard and accepted practices for health, safety and environmental audits.

SUMMARY AUDIT REPORT

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

Round Mountain Gold Mine — Signature of Lead Auditor — 6 March 2020
Name of Mine — Date

Standard of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

RMGC continues to purchase liquid sodium cyanide solution exclusively from Cyanco Company, LLC (Cyanco) produced at the Winnemucca facility. Procurement is under *Contract for Purchase and Sale of Sodium Cyanide (Liquid)* dated 13 June 2017. The contract expires at end of Life of Mine. The contract covenants that each part of the supply chain comprising the Cyanco Winnemucca Plant and the transporter TransWood Inc. (TransWood) is to be certified in full compliance with the ICMC and to maintain certification for the duration of the contract. Review of the ICMI website confirms that the Cyanco Winnemucca Plant was originally certified to the ICMC in 2006 and recertified in November 2009, July 2013 and most recently in November 2016.

2. TRANSPORTATION **Protect communities and the environment during cyanide transport.**

Standards of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The *Contract for Purchase and Sale of Sodium Cyanide (Liquid)* sets out terms for delivery of sodium cyanide. Schedule A provides specific purchase conditions for RMGC on Incoterms Delivered at Place (DAP) at the delivery location specified by the buyer. The contract sets out transport and shipping requirements and allocates responsibility to the seller for transporting liquid cyanide from the manufacturing facilities to the designated storage facilities at the delivery location and includes requirements for packaging, labelling, storage, transport, unloading, evaluation of routes, safety and maintenance of means of transportation, task and

safety training for transporters and handlers, security and emergency response. Addition of dye to deliveries of liquid sodium cyanide is also the responsibility of Cyanco through written agreement.

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

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

Summarize the basis for this Finding/Deficiencies Identified

The Contract for Purchase and Sale of Sodium Cyanide (Liquid) requires that that each part of the supply chain comprising the Cyanco Winnemucca Plant and TransWood is to be certified in full compliance with the ICMC and to maintain certification for the duration of the contract. TransWood is contracted by Cyanco for delivery of liquid sodium cyanide from the Winnemucca Plant. TransWood received initial certification on 11 October 2006 and was recertified on 12 January 2017.

Chain of custody procedures remain almost identical to those noted in the 2016 recertification audit. Bills of lading accompany each delivery and confirm the transport route from point of origin at the Winnemucca production facility to the receiving storage tank. The bill of lading is signed by both TransWood driver and a RMGC representative upon receipt of the delivery.

***3. HANDLING AND STORAGE* Protect workers and the environment during cyanide handling and storage.**

Standards of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

As discussed in the 2016 ICMC audit report there were cyanide off-loading and storage facilities at the Mill, SDED Plant, WDED (Phase 4/5) Feed Pond #14, WDED (Phase 6) Feed Pond #11, ADR Plant, and Gold Hill ADR Plant, and documentation was available to confirm

that these facilities were adequately designed and constructed as documented in signed and stamped engineering reports or verified through an evaluation by a professional engineer. Since the 2016 ICMC audit an additional unloading facility was constructed to supply the NDED Plant as part of the Phase W Expansion. This plant began receiving liquid cyanide in April 2019. The design, construction quality assurance/quality control (QA/QC) and as-build drawings for the construction of the NDED Plant cyanide/off-load facility is documented in a Record of Construction Report, prepared, signed and stamped by a State of Nevada registered Professional Engineer.

The security perimeters of all cyanide facilities are well distant from any dwellings. The nearest residential areas are the Hadley subdivision located over two miles away, and the old town of Round Mountain located approximately 1.7 miles upgradient from the Round Mountain process facilities and 3.3 miles from the Gold Hill ADR Plant. There are no perennial steams or other natural water bodies within the proximity of the mine site.

The off-load/storage facilities at the WDED feed ponds are located remotely and away from offices and frequented work areas. These facilities are located within securely fenced areas that are only accessed by authorized personnel. The off-load/storage facilities at the Mill, ADR, SDED Plant, WDED ponds and NDED Plant are in areas of restricted access that are monitored by security cameras.

Each off-loading facility is provided with a curbed concrete containment slab that drains to a secondary containment (i.e., concrete containment basin or lined process pond). The pad and containments were observed to be in good condition. The cyanide off-load/storage facilities are all provided with a curbed concrete containment slab for the delivery truck that depending on the facility design drains to a cyanide tank containment, process vault or lined pond. The cyanide tanks are located within concrete containment basins or on High Density Polyethylene HDPE liner that drains to a process vault, or lined process or event pond. These materials provide a competent barrier to leakage and were observed to be in good condition.

To prevent the overfilling of cyanide storage tanks, each tank is equipped with a digital readout allowing operators to monitor tank levels. Each tank is equipped with a siren and flashing light that are set to alert if the tank level reaches 90%. Procedures require the operator to check the tank level prior to starting an off-load. RMGC operators in the Mill and ADR control rooms can remotely monitor automated level indicators for the storage tanks via a Distributed Control System that include both audible and visual high-level alarms. The sensors and alarms are tested prior to each off-loading and are on a monthly preventative maintenance schedule.

All cyanide storage is in areas of restricted access that are monitored by security cameras. Storage areas are outside and are well ventilated with minimal potential for hydrogen cyanide (HCN) gas build-up. Locks are installed on all cyanide storage tank drain valves to prevent inadvertent opening and release of high-strength cyanide. Cyanide tanks placed near the solution ponds and leach pads that are physically distant (i.e., many hundreds of yards) from warehouses or other chemical storage areas. At the Mill, ADR, and Gold Hill plants they are

physically separated from other process chemical tanks by concrete barriers and separate concrete impoundments.

3.2 Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The operation is:
- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 3.2.

Summarize the basis for this Finding/Deficiencies Identified:

Cyanide is only delivered as 30% aqueous solution in dedicated tanker trailers. Dye is added to the solution by Cyanco prior to transport. The TransWood driver is responsible for following Cyanco procedures that describe the process of checking tank levels before beginning the unloading operation, uncapping the quick-release dripless coupling on the storage tank, attaching the discharge hose from the cyanide tanker, attaching a compressed air source (i.e., plant air or an onboard blower), and pressurizing the system to transfer the solution from the trailer to the stationary solution tank. The TransWood driver carries appropriate personal protective equipment, use of which is addressed as part of the Cyanco procedure. An RMGC operator witnesses the coupling and decoupling of the tanker and documents that procedures were followed. After solution transfer, procedures require the area to be hosed down to wash any residue or solution accumulation to the sump and to document that this has been completed.

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

Standards of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

RMGC has written management and operating plans or procedures to safely manage the cyanide facilities and evidence was available that these procedures have been in effect over the last three years.

At the time of the 2016 ICMC recertification RMGC was in the process of revising and reorganizing their departmental Standard Operating Procedures (SOP) into Safe Procedures Manuals (SPM) for the ADR and leach pad operations. This initiative was finalized in 2017 and was implemented to reduce redundancy, consolidate training, and provide better document control.

The SPM for the ADR plants is divided into two sections. One contains a general section on required environmental and safety practices (former Tasks Cards) that itemize the requirements for general safety, chemical safety, environmental awareness, working around water and on the ground, tool safety, carbon plant operations, and spotting equipment. The other section contains detailed SOPs for operating the various plant associated with the ADR cyanide facilities. The SPM for the leach pad operators is set out in a similar fashion to the SPM for the ADR plants with a general section on required environmental and safety practices and another section that includes SOPs for operation and maintenance of the leach pads. In addition, there are SOPs in place for the Mill and general standalone SOPs that include, cyanide addition to leach circuit, draining and pumping secondary containments, titrating cyanide, working around ponds, confined space entry, gas detectors, bulk chemical delivery, management of change, Ammonium Bisulphate Safety, and Copper Sulphate Safety, as well as Mill Process Guidelines that provide operating setpoints for addition of reagents and to the CIL and cyanide destruct circuits.

There are also operating plans and permits that stipulate operating requirements for the process facilities. These include:

- Water Pollution Control Permits (WPCPs) and supporting WPCP Applications (see Section 4.1(2) below);
- Industrial Artificial Pond Permits (IAPP)
- Water Balance Manual;
- Environmental Management and Procedures Manual (EMPM)
- Spill Prevention, Control and Countermeasures (SPCC) Plan;
- Storm Water Pollution Prevention Plan (SWPPP); and
- Emergency Response Manual.

Starting in 2018, environmental samples of the reclaim water analyzed by a third-party laboratory began to show elevated WAD cyanide of 1 mg/L and 1.4 mg/L in the summer months. This was contrary to daily analysis being undertaken by RMGC which showed WAD cyanide in the reclaim consistently below 0.5 mg/L WAD. Subsequent to the field component of the audit RMGC sent samples to external laboratories to evaluate the reliability of the analytical results for the reclaim water. The evaluation concluded that the increase in WAD cyanide in the reclaim water was real. RMGC concluded that because changes in ore composition since 2017 created challenges to maintaining WAD cyanide concentrations below 0.5 mg/L in the reclaim water, facilities receiving reclaim water (i.e., reclaim pond and grinding circuit and reclaim pipelines) would need be reclassified as "cyanide facilities" and managed as such.

Although RMGC showed a good faith effort to ensure WAD cyanide was maintained below 0.5 mg/L through daily sampling of reclaim water the significance of the recent semi-annual environmental sampling results had not been recognized. Nevertheless, it is the opinion of the auditors that because of the low concentrations of cyanide in the reclaim water this situation does not present an immediate or substantial risk to health, safety or the environment.

Prior to submission of this audit report a member of the audit team returned to the site and conducted an inspection of the reclaim pond, return lines and grinding circuit to evaluate that these facilities and their associated operating procedures conformed to the requirements of the ICMC. The evaluation found that secondary containment was provided for the reclaim pond, tailings/reclaim pipeline corridor and mill facilities with exception of an approximately 76 m (250 ft) long, 2 m (6 ft) deep section of buried reclaim pipeline located near the mill (this is discussed further in Section 4.7). RMGC's Safety Department had also conducted a risk assessment on the presence of low concentrations of cyanide in the workplace from the use of reclaim water and updated operating procedures in the grind area to require chemical resistant gloves if WAD cyanide concentrations exceed 5 ppm. RMGC provided documentary evidence that the reclaim pond, return lines and grinding circuit were being managed in conformance with the cyanide code.

As documented in the 2016 ICMC recertification audit the assumptions and parameters on which the heap leach facilities, process plants, TIF and Mill were designed are identified in the design reports that incorporate the appropriate regulatory requirements. The Dam Safety Permits issued by the Nevada Division of Water Resources (NDWR), and the WPCPs issued for Round Mountain and Gold Hill by the Nevada Division of Environmental Protection (NDEP) also identify the primary assumptions and parameters on which these process facility designs are based as well as the regulatory requirements for operating these facilities. The WPCPs stipulate that, in accordance with operating plans and facility designs reviewed and approved by NDEP, RMGC shall:

- Construct, operate, and close the facility in accordance with those design plans;
- Contain within the fluid management system all process fluids including all meteoric waters which enter the system as a result of the 25-year, 24-hour storm event; and
- Not release or discharge any process or non-process contaminants from the fluid management system.

Among other items, the WPCPs stipulate management procedures for the fluid management systems, inspection and monitoring requirements for leak detection systems and process solutions, and provide operational limitations such as allowable TIF freeboard, maximum ore heights on leach pads, solution application rates, and storage time of process solution in single lined ponds. The Fluid Management Plans that form part of the WPCPs provide monitoring schedules and list freeboard requirements for normal operating conditions.

The IAPPs issued by the Nevada Department of Wildlife (NDOW) provide the operating requirements for impoundments containing materials, compounds, or chemicals that cause or

will cause the death of wildlife. The permits list the measures that RMGC must take to prevent wildlife from gaining access to such materials or to render the materials harmless to wildlife. The EMPM includes procedures for collecting and analyzing samples as required by the Permits. The manual also includes requirements for covering or containing open waters that are lethal to wildlife and fencing these areas to preclude access by wildlife.

RMGC utilizes physical deterrent systems (bird balls on ponds; netting or crushed rock on solution collection channels; and netting on leach pads to protect wildlife. Additionally, all cyanide off-load facilities and storage areas and pond systems are fenced to restrict access by terrestrial wildlife. RMGC uses drip emitters to apply leach solution to the tops of the heaps to minimize ponding, and where practical buries these emitters. Bird scaring equipment is also utilized on pads and ponds.

RMGC has implemented a program for optimizing the use of cyanide and utilizes a cyanide destruction circuit to control WAD cyanide concentrations discharged to the TIF. The final tailings discharged to the TIF are sampled at the Mill daily. The target concentration at the discharge to the tailings pond is 10 mg/L or less WAD cyanide, based on best practice and numerical guidelines established by the ICMC for limiting exposure to wildlife in open waters. NDOW does not have a guideline for WAD cyanide concentration levels in open waters and the ICMC standard is 50 mg/L; however, RMGC manages the concentrations at much lower levels.

According to the WPCP Applications, the pond systems are designed to contain the 100-year, 24-hour storm event, plus 24 hours of drain down from the heaps during an unexpected power outage, while maintaining two feet of freeboard. The seepage collection pond system for the TIF is sized to contain the 100-year, 24-hour storm event, operating inventories, and a 48-hour power loss. RMGC always maintains dedicated storage capacity in the pond system to meet these design criteria.

RMGC has inspection programs in place for all cyanide facilities. These programs have not significantly changed since the 2016 ICMC Recertification audit, except that since April 2019 RMGC has initiated a process of transferring inspection forms onto an IntelaTrac® Software management system that allows operators to directly enter inspection observations using an iPhone or tablet. In addition, a detailed shower/eyewash inspection form was developed and implemented in 2018 to better manage the reliability of shower/eyewash stations. Mill personnel conduct detailed, routine inspections of the Mill and the Tailings Dam personnel conduct inspections of the tailings pipeline, storage facility, reclaim and seepage channels and collection ponds. Inspections are documented on checklists and inspection forms. Operator inspection and process reports are provided to the Processing Clerk who maintains electronic copies on the RMGC computer data base. Records were reviewed covering the last three years and demonstrate that procedures are in place to inspect and monitor the operations to ensure that facilities are operated in a safe and environmentally sound manner.

Managers perform quarterly "Planned Team Inspections" of areas (mine-wide) to identify hazards and defective equipment or plant requiring repair. The Safety Manager and Environmental Manager are notified of all Planned Team Inspections and participate or

schedule coverage from their department. The Environmental and Safety Departments also conducts inspections. The Environmental Department conducts formal weekly and monthly inspections (depending on the potential risks) of facilities (Mill, process plants, TIF, leach pads, channels, sumps, containments and ponds) and wildlife protection measures and observances.

The Safety department is responsible for auditing the inspection and use of hand-held multi-gas instruments and dry chemical fire extinguishers, PPE Stations and antidote kits and conducts monthly inventory and inspections of emergency response equipment.

As stipulated by the Dam Safety Permit, RMGC conducts periodic inspections of the tailings impoundment and appurtenant works to monitor for deleterious conditions and debris accumulations. Knight Piésold conducted annual inspections 2016 and 2017 and Newfields conducted the inspection in 2018. The reports are submitted to the NDWR. No significant issues were reported.

In addition to the inspection procedures outlined above, RMGC has a preventative maintenance program for critical equipment. The preventative maintenance schedule provides a listing of the equipment along with the planned time for maintenance. The system is managed using JD Edwards© (JDE) software, which automatically produces preventative maintenance work orders on an established schedule. The system identifies future activities for regular preventative maintenance and includes information on the task requirements and completion.

Since the previous audit, "Safety Blitz" inspections are no longer conducted and the function for these inspections is now being covered by the Managers quarterly "Planned Team Inspections.

Inspections were being completed as scheduled as evidenced by inspection records covering the past three years and generally the site was observed to be well maintained. A few exceptions of note were however identified during the site audit. Open solution ponding was observed along the toe of the Gold Hill Leach Pad; cyanide solution was observed dripping down stairwells in the SDED Plant and ADR as a result of overflowing trash collection tanks, and cyanide salt buildup was observed on some equipment. RMGC implemented corrective actions to rectify these deficiencies and put measures in place to prevent such issues reoccurring.

The collapsed netting at the toe of the Gold Hill leach pad was re-staked to lift it out of the solution. Drain pipe was later installed to divert the solution away from the ponding area to another area nearer to the main collector pipe where the solution was absorbed. Because the ponding is the result of pregnant solution surfacing along the lower slope and toe of the leach pad and the solution has low cyanide concentration (generally much less than 0.04 pounds per ton (lb/t), it is the opinion of the auditor that there was no immediate risk to wildlife mortality from the occurrence of ponding in this area.

At the time of the field component of the audit measures were put in place to stop the overflow to the stairwells. Subsequent to the audit the carbon trash tanks in the ADR and SDED Plant were modified to prevent future overflow or splashing from the tank. This was achieved by installing a cover over the feed channel to the tank at the ADR and installing a 15-inch liner around the top of the feed boxes at the ADR and SDED Plant. Photographic evidence showing completion of installation of the cover prior and liner were provided prior to submission of this report. Photographic evidence was also provided showing that the salt deposits had been removed. Evidence was also provided showing that the daily inspection form was updated to specifically address cyanide salts and together with records that the operators had been retrained in the inspection procedure. Because of the low concentrations of cyanide at the trash screens (0.02 lb/t to 0.04 lb/t), the PPE required to be worn by operators and the containment provided in the ADR and SDED Plant, it is the auditors opinion these deficiencies did not present an immediate or substantial risk to health, safety or environment.

Procedures are in place for managing changes to processes or operating practices. As noted during the 2016 ICMC recertification audit RMGC uses the Kinross Authorizations for Expenditure (AFE) procedure when applying for capital and/or project funding. This procedure which includes a formal environmental and health and safety review of the proposed project and sign-off by various management departments including the Vice President and General Manager, as well as Environmental, Safety, and other management representatives, has continued to be used during the past three years. For modifications less than $10,000 RMGC uses a *Management of Change (MOC) Procedure* that includes a Level One Risk Assessment tool/card in which risk is evaluated by a simple potential exposure versus potential consequences matrix; and review of controls to mitigate the risk generated by the proposed changes. In the appraisal process, Cyanide Code is specifically listed as requiring the proposed change to go through the full review and approval process to include at a minimum, sign-off from the Health & Safety, Environmental and any applicable or affected department Manager.

The Fluid Management Plans contain procedures to correct an upset in the operation's water balance. The procedures address both "normal operations" and "unusual operations" for each of the process facilities. Corrective action is based on available freeboard in the solution ponds and generally involves limiting new water into the process system. The procedures to be taken are additive and ultimately involve discharge of excess process solution to the lined event ponds. Event ponds are not used to store water and remain empty except for accumulated precipitation, which is pumped back to the solution ponds after storm events. An exception to this is Pond 43 (Phase 7A Event Pond) that at the time of the audit was temporarily being used as a pregnant storage pond while Pond 1 was being relined. RMGC continues to inspect and document pond levels each shift to identify potential upset conditions. Operational inspection checklists and forms include noted deficiencies or problems identified by inspections. Items requiring rectification or repair are addressed either by operational personnel or by the corresponding Maintenance Department via the work order system.

WPCP Applications contain a Seasonal Closure Plan (for unplanned closure due to extremely severe weather conditions), Temporary Closure Plan (for situations such as mechanical or technical difficulties, unfavourable economic conditions, litigation or other unforeseen events), and a Tentative Plan for Permanent Closure. The seasonal and temporary closure plans include measures for the ongoing monitoring and maintenance of facilities and to ensure that adequate storage capacity is available in the solution ponds. RMGC is required to notify NDEP within 30 days after an unplanned temporary closure begins and will evaluate the integrity of the entire fluid management system prior to start up.

RMGC also has spill response procedures to address releases of hazardous substances including petroleum products, sodium cyanide, acids and caustics. A *Cyanide Spill Response Plan* has been developed as part of the *Emergency Response Manual* that provides detailed safety aspects for the hazardous material team that focus on the environmental aspects of the spill. This plan also refers to the use of calcium hypochlorite for detoxification.

Programs in place for inspecting unloading, storage, mixing and process areas are basically unchanged since the 2016 ICMC recertification audit. Operations personnel perform routine inspections of cyanide storage tanks and the maintenance department conducts the preventative maintenance on cyanide tanks, including: drain down and inspection of the leach/CIL tanks on an approximate 3-year schedule, drain down and interior ultra-sonic (UT) wall thickness testing of the carbon-column tanks on a 3-year schedule, and exterior UT wall thickness testing of off-load bulk cyanide storage tanks and cyanide process tanks on a 3-year schedule. Secondary containments are inspected daily by operations personnel for physical integrity and available capacity; the EMPM contains procedures covering monitoring leak-detection systems at the heap leach facilities and process plants (solution channels, sumps, piping and ponds) and the TIF (collection channels and ponds). The results are required to be submitted to the NDEP quarterly. Where leakage is discovered that exceeds permitted limits investigations are undertaken and repairs are conducted. Shift and daily inspections covering valves, pumps, and piping are conducted by operations personnel. Additionally, RMGC performs nondestructive testing on the HDPE tailings pipeline system to ensure physical integrity.

All inspection forms and checklists include the date of the inspection, the name of the inspector and observed deficiencies. Operator log sheets and inspection forms are scanned, and electronic copies are stored on RMGC's computer database. Other inspection records are filed in binders, process plant log books, leach pad log books and environmental inspection sheets and maintained in hard copy in the various departments. The IntelaTrac® system records the date of inspection, inspector, observations (OK or deficient) and online supervisor approval and sign-off. When an operator identifies a deficiency the IntelaTrac® system provides instruction on corrective actions. If the suggested actions do not resolve the issue the item remains a deficiency that is tracked in the database as a corrective action until it is closed. Aside from the operational and inspection forms and checklists, preventative maintenance and corrective maintenance work orders reside electronically in the JDE software system and in hard copy filed by the maintenance clerk. These records include the date, description of work performed, and the name and signature of the person that completed the

work. Based on the review of the facilities during this onsite recertification audit, it was apparent that the inspection programs and required follow up for repairs and preventative maintenance work are effective.

RMGC continues to manage its preventative maintenance program for critical equipment using JDE software, which automatically produces preventative maintenance work orders on an established schedule. Maintenance shutdowns (12-hour shutdown) are scheduled each month and a major shutdown (60-hour shutdown) is scheduled every eight months to coincide with replacement of the Semi-Autogenous Grinding (SAG) relining. These shutdowns allow preventative and corrective maintenance to be scheduled and completed on equipment otherwise difficult to access when the plant is running. Corrective maintenance and emergency work orders are generated from work requests resulting from operational inspections. The work orders are tracked electronically through the JDE system and final comments are entered by the maintenance clerks.

RMGC relies principally on excess pond capacity to mitigate unintentional releases of process solution. The pond systems are designed to contain the 100-year, 24-hour storm event (2.50 inches) and 24 hours of drain down from the heaps during an unexpected power outage, while maintaining two feet of freeboard. The seepage collection pond system for the TIF is sized to contain the 100-year, 24-hour storm event, operating inventories, and a 48-hour power loss. Dedicated storage capacity is maintained in the pond systems to meet these design criteria.

The power supply systems have not changed since the 2016 ICMC recertification audit. A 230-kilovolt ("KV") power line provides a capacity of 40 MVA (Megavolt-amperes). A separate 60-KV power line provides a capacity of 7.5 MVA. The mine-wide (overall) power requirement is approximately 26 MVA. Additionally, RMGC maintains five diesel powered generators to run critical equipment including process solution pumps at the various process areas, in case of a primary power failure. These generators automatically start when primary power is interrupted and are included within RMGC's routine preventative maintenance program. One of these generators was recently installed to provide backup power to the NDED leach facility.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 4.2.

Summarize the basis for this Finding/Deficiencies Identified:

Cyanide addition is optimized in the leaching process by maintaining cyanide concentrations within "set points" which are determined by the Mill Manager and Metallurgist based on the ore being processed. The set point targets for cyanide are monitored through manual sampling and titration analysis at Leach Tank No. 1 every two hours and at the tails tank (CIL Tank No. 6) once per shift. The current set points are a minimum and maximum

concentration of 0.8 and 1.5 lb/t, respectively in Leach Tank No. 1 and a minimum and maximum concentration of 0.2 and 0.5 lb/t in CIL Tank No. 6. The cyanide concentrations are also monitored through the leach circuit to evaluate consumption. Although there is a TAC 1000 cyanide analyzer and controller located at the Mill this is not operated reliably to date so is not being used.

The cyanide titration results are entered into the CIL Operator Reports. A sample of reports for 2017 and 2018 and 2019 were reviewed and showed that cyanide measurements were being undertaken as scheduled and cyanide addition rates at the head tank were being maintained within the set targets.

RMGC performs manual titrations at the head tank every two hours and feed rates are adjustments to the rates are made in the Mill control room, as necessary. To optimize recovery and minimize cyanide consumption, the operation attempts to maintain cyanide concentrations at the set points described in above.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 4.3.

Summarize the basis for this Finding/Deficiencies Identified:

RMGC continues to track water flow throughout the engineered water management facilities at Round Mountain using the same GoldSim© software based comprehensive, probabilistic (Stochastic) water balance model in place during the 2016 ICMC recertification audit. This model tracks the dewatering and potable well systems, the Mill and TIF, all heap leach facilities, and the process plants (i.e., the ADR Plant and SDED Plant). Generally, the model considers precipitation, evaporation, makeup water, ore leach rates, tailings deposition, ore and tailings uptake, seepage from the TIF to the Reclaim Ponds, reclaim water, power failure (the model can simulate loss of power), and dewatering and potable water uses including discharge to the Rapid Infiltration Basin. These parameters are considered in a reasonable manner and as appropriate for the facilities and environment. RMGC has also developed a similar model using GoldSim® for the Gold Hill process facilities. Generally, the Gold Hill design model considers, precipitation, evaporation, makeup water, ore leach rates, ore uptake, storm runoff, construction water and dust control, and dewatering and potable water uses including discharge to the Rapid Infiltration Basin.

The GoldSim© model was developed by Water Management Consultants and since 2017 has retained Forte Dynamics Inc., to update the model, provide advice and assist with modeling more complex scenarios, as needed. Forte Dynamics was retained to modify the model to incorporate the recent startup of the NDED Plant. The NDED facility was temporarily being

operated with a maximum pond depth of 6 feet (freeboard of 11 feet) until the update of the water balance model is complete and functioning.

Current operating procedures are considered adequate to prevent overtopping of ponds and the tailings impoundment. The RMGC operation is located in a region of high net evaporation; therefore, a significant amount of freshwater must be added to the processing facilities in order to offset the evaporative losses. Solution ponds are monitored routinely by operations and environmental personnel. The pond systems are designed to contain the 100-year, 24-hour storm event, and 24 hours of draindown from the heaps during an unexpected power outage, while maintaining two feet of freeboard. The seepage collection pond system for the TIF is sized to contain the 100-year, 24-hour storm event, operating inventories, and a 48-hour power loss. RMGC operates the pond systems to maintain dedicated storage capacity at all times to meet these design criteria. RMGC collects precipitation data from two onsite automated meteorological stations, one located at the Core Shed building and the other at the Gold Hill Leach Pad are used. The historical storm data used to evaluate the potential impact of storm events on the site water balance are derived from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation data using an automated statistical interpolation on the NOAA website.

The Environmental Department compiles the data for input to the water balance model on a monthly basis and the model is updated quarterly by Forte Dynamics. Also, surveys of Cell B and Cell A are undertaken on a quarterly and annual schedule, respectively to confirm the rate of deposition assumptions and TIF capacities in the water balance model. The models were last calibrated on 30 June 2019 (Round Mountain) and 22 March 2017 (Gold Hill).

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 4.4.

Summarize the basis for this Finding/Deficiencies Identified:

Since 2016, the heap leach pads, collection channels and solution ponds remain the only facilities where open cyanide-bearing solutions occur with WAD cyanide concentrations greater than 50 mg/l. Tailings from the Mill are treated in a cyanide destruct circuit to reduce WAD cyanide concentrations below 10 mg/l prior to discharge to the TIF. WAD cyanide concentrations in the TIF and the associated seepage collection ditch and reclaim pond system are therefore well below 50 mg/l. The tailings are sampled every 2 hours at the Cyanide Destruct Tank and on a quarterly schedule by the Environmental Department. For the 3-year period since the last ICMC recertification audit the maximum WAD cyanide concentration recorded in the final tails discharged to the TIF (Cell A and B) was 7.1 mg/l.

The IAPPs list the measures required to prevent wildlife from gaining access to process solutions that cause or will cause the death of wildlife. Except for the tailings impoundment and associated seepage channels and collection ponds, all open process solutions are covered or protected by physical barrier systems. Measures implemented by RMGC include bird balls in solution ponds; French-drain system (i.e., perforated pipe covered with crushed rock) or framed netting at leach pad collection channels; netting at overflow containment channels; netting at collection sumps; framed netting at any temporary ponding areas on heaps; fencing at solution ponds and event ponds; and barbed-wire fencing installed along property perimeter to prevent ingress by larger animals. Netting is also used to cover ponding on the leach pads.

The measures used to prevent wildlife access to open process solution were in general found to be well managed throughout the site; however, an exception was observed along the south side of the Gold Hill dedicated leach pad where open solution was observed on the slope and toe of the pad. Although there was evidence that efforts were being made to cover solution with netting, this was not effective as netting had collapsed and was lying in solution. Subsequent to the field component of the audit the collapsed netting was re-staked to lift it out of the solution. Drain pipe was later installed to divert the solution away from the ponding area to another area nearer to the main collector pipe where the solution was absorbed. Because the ponding is the result of pregnant solution surfacing along the lower slope and toe of the leach pad and the solution has low cyanide concentration (generally much less than 0.04 lb/t, it is the opinion of the auditor that there was no immediate risk to wildlife mortality from the occurrence of ponding in this area.

The TIF, process ponds, leach pads and related systems are inspected daily by operators who are required to report any wildlife mortalities. RMGC environmental personnel conduct a weekly inspection of the TIF, which includes observation of wildlife where open process solutions are stored. RMGC submits quarterly Wildlife Mortality Reports to the NDOW in accordance with the IAPPs and must immediate verbally report potential or known process solution related wildlife mortalities to NDOW. Review of wildlife mortality records show that there has been a total of 27 mortalities between July 2016 and September 2019 listed as associated with permitted solutions, i.e., mortalities related to ponding or distribution pipeline breaks on the leach pads or found in or near the TIF or process ponds.

To minimize ponding and impact to wildlife, leach pad operators reduce flow from emitters in low permeable areas; pinch off lines in ponded areas, and cover areas of ponding with crushed ore from the Reusable Leach Pad and /or netting. In addition, pad walkers are tasked with monitoring for and eliminating ponding. Since 2014 RMGC is also using sonic Bird-X Digital Bird Repellers. An operator has recently completed training as a drone pilot and RMGC is about to implement a drone monitoring program to inspect pads for ponding and other potential issues that may expose wildlife to cyanide.

Over the past year RMGC has been installing gravity solution injection wells on the WDED leach pad. In addition to improving gold recoveries these wells eliminate the potential for solution ponding on the top of the pad. There are programs in place to expand the application of this method of solution application.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

This Standard of Practice is not applicable, as no perennial streams or other surface water features are located within the permitted area of the RMGC mine property or in close proximity. Consequently, the WPCPs do not require surface water monitoring down gradient of the cyanide facilities. Although, cyanide solution spills have occurred outside of containment over the three-year period between ICMC recertification audits, surface water has not been impacted.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Round Mountain and Gold Hill facilities are designed and operated as zero-discharge facilities. The project construction and operation include several seepage control technologies such as composite liner systems at the heap leach pads consisting of compacted low-permeability soil liner overlain by geomembrane liners; double geomembrane liners with leak detection systems at the process ponds; HDPE lined containment channels for solution pipelines, and concrete secondary containment in process areas. The TIF embankment foundation is constructed with a full underdrainage system designed to facilitate collection and drainage of solution from beneath the impoundment. A pipe network drains to double-lined solution collection channels along the toe of the embankment. The collection channels convey seepage water to the pond system of three double-lined process ponds and a single-lined storm pond. The pipeline system conveying tailings from the Mill to the TIF is constructed of HDPE material and is contained within a compacted clay channel. The channel provides secondary containment for the pipeline system. The facility design and construction meet NDEP standards.

RMGC conducts regular inspections and monitoring of the TSF and heap leach facilities to ensure that the operating criteria are being met. In addition, regular monitoring of

groundwater and leak detection systems is conducted to ensure that the facility is functioning as designed and protective of the environment.

Groundwater use in the RMGC operation area is protected for domestic, mining and milling uses, and the regulatory numerical standard established for groundwater protection is 0.2 mg/L WAD cyanide, for Primary and Secondary Drinking Water Standards. The monitoring results reviewed demonstrate that the operation has not exceeded the above referenced numerical standard for WAD cyanide at the groundwater compliance points, and that the operation is protective of the designated "beneficial use" of groundwater. All results reported for WAD cyanide have been well below the standard during this three-year period between ICMC recertification audits.

Based on the reported spills over the past three years and the absence of evidence to suggest seepage of cyanide solutions into the environment there has been no requirement for the operation to be engaged in remedial activity to prevent further degradation and restore beneficial use.

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

The operation is:
- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 4.7.

Summarize the basis for this Finding/Deficiencies Identified:

Spill prevention or containment measures are provided for all cyanide unloading, storage, mixing and process solution tanks. The concrete or lined secondary containments for all cyanide unloading, storage and process solution tanks present during the 2016 ICMC recertification audit are still in place. In addition, secondary containment is provided for the new VCIC plants installed at the SDED area and WDED area, and at the NDED area. At the NDED area, the VCIC building and off-loading storage area are all underlain by HDPE liner. Spillage within the VCIC building or on the off-loading pad would flow to the pregnant vault. Spillage from the storage tank would flow to the pregnant pond. The VCICs at the WDED Pond area and SDED Pond area are of similar design. They are each housed within a pre-engineered metal building constructed with a concrete floor and curbed containment that directs any spillage to a sump that delivers spills back to the VCIC or overflows to a process pond via a HDPE lined trench.

During previous ICMC recertification audits, RMGC provided evidence demonstrating that the secondary containment for all process solution tanks at Round Mountain and Gold Hill is sized adequately (i.e., to hold a volume greater than that of the largest tank within each containment and any piping draining back to the tank, and with additional capacity for the design storm event). The facilities constructed since the last ICMC recertification audit are also provided with adequate containment. The secondary containments for the building

foundations for the VCIC plants at the WDED and SDED area are sized to provide 125% of the VCIC capacity at each plant. In any event spills within the plants are directed to a sump that allows the spill to be pumped back to the VCIC or if the sump overflows, drains to the process pond. The building secondary containment for the NDED Plant provides 68% of one VCIC in the NDED Plant; however, a spill within the plant is directed via a concrete spillway to the pregnant vault which overflows via the barren to the operation pond. The concrete pad for the cyanide storage tank is designed to direct any spillage to the operating pond.

The concrete secondary containments provided for all cyanide process tanks at the Mill, and in the ADR, SDED Plant, VCICs and Gold Hill ADR Plant buildings have concrete floor sumps with dedicated pumps to collect and remove cyanide solution and/or slurry spillage. Daily visual inspections conducted by operations personnel include the operation and discharge of the sump pumps and the physical integrity and available capacity of the secondary concrete containments, lined areas, and ponds. Procedures are in place to ensure that any fluid in secondary containment, including precipitation and any fluid that has escaped from primary containment is removed as soon as it is discovered. The disposal of fluid not pumped back to the process must be approved by the Department Supervisor and/or the Environmental Department.

Based on site inspection and review of engineering drawings for the new VCIC plants and NDED Plant all piping associated with this recent construction is provided with secondary containment. Previous certification audits reported that all cyanide process solution pipelines at Round Mountain and Gold Hill are provided with spill prevention or containment measures with exception of a buried process solution supply pipeline installed from the ADR Plant to the Reusable HLF. An electronic leak detection monitoring system was installed to monitor for potential leakage of this buried line.

In early 2018 as a result of stability problems with the open pit wall the haul road to the mine was relocated beside the Reusable Pad for safety reasons. As this provided the only access to the South Side of the site, the road could not be temporarily closed to allow the environmental technicians safe access to conduct the biweekly monitoring. Because the monitoring was not a required by the regulatory agencies a decision was made to no longer perform the tests. The Environmental Department therefore has not conducted leak-detection monitoring for the buried line since January 2018. Beyond Leak Detection last performed annual maintenance on the system in June 2019. At this time no characteristic leak signal, penetration, or anomaly was identified in the cyanide lines. Their report provided several recommendations including: the immediate need to replace PVC conduits carrying wiring with flexible piping as there was a risk of the leak detection system malfunctioning.

Immediately following the field component of the audit RMGC issued a work order to replace PVC conduits as recommended by BLD and reinstated the bi-weekly monitoring program. Because of the buried nature of the pipeline, depth to groundwater and remoteness of the site from communities that may utilize the groundwater, it is the opinion of the auditors that this situation did not present an immediate or substantial risk to health, safety or the environment. Also, as soon as the oversight to monitor the buried line was realized RMGC made a good-faith

effort to implement repairs to the monitoring system and reinstate the bi-monthly monitoring program.

Prior to submission of this audit report RMGC provided documentary evidence and photographs of the repairs to the monitoring system and records of four sets of bi-monthly monitoring to demonstrate re-establishment of the monitoring program. None of the monitoring detected leakage.

As discussed in Section 4.1 the reclaim line and grinding circuit at the mill now fall under the requirements of the Cyanide Code due to the increase in WAD cyanide concentrations above 0.5 mg/L in the reclaim water. During inspection of the mill and reclaim pipeline corridor a small 76 m length of buried reclaim pipeline was identified between the tailings/reclaim line containment corridor and the mill. Based on a field assessment and review of the elevations of the pipeline, RMGC concluded that a monitoring port installed at the lowest elevation area of the pipeline would enable detection of a leak in this buried section of line. Prior to submission of this report RMGC provided documentary evidence and photographs that the leak detection port had been installed and a quarterly monitoring schedule implemented. During installation the soil was found to be dry.

There are no perennial streams or other surface water features are located within permitted area of the RMGC site where cyanide pipelines might present a risk to surface water.

RMGC uses black iron, stainless steel, and HDPE pipelines for conveyance of cyanide solutions and slurries. Bushings are installed at joins between black iron and stainless steel to prevent direct contact. Cyanide storage and process tanks are carbon steel. These materials are compatible with cyanide and high pH solutions.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 4.8.

Summarize the basis for this Finding/Deficiencies Identified:

Detailed Audit Findings Reports (April 2007, August 2010, January 2014 and February 2017 summarize the construction quality assurance and quality control (QA/QC) documentation for the cyanide facilities in operation during those audits. New and modified facilities constructed subsequent to the 2016 ICMC recertification audit include:

- Section 1 of NDED Leach Pad Phase 1A
- Section 2 of NDED Leach Pad Phase 1A
- NDED Plant

- VCIC Plants at Pond#7 and Pond#11
- SDED Return Piping Upgrade
- New Loaded and Barron Carbon Tanks in ADR
- Relining Pond #7
- Upgrade of WDED and SDED Barren Solution Pumping Systems
- Pond 13 and #14 Vault Repairs
- TIF Cell B Phase 1
- Liner Replacement Pond#14 and Pond#13
- SDED Plant and WDED Plant Upgrade
- Pond#1 liner replacement

Quality control and quality assurance programs were conducted for all engineering works and documentation of these are provided in the records of construction. For the record of construction reports include engineer inspection reports, photographs and as-built engineering drawings, laboratory and field-testing records for soil (Atterberg limits, particle size) and compaction test results for the subgrade, compacted fill and clay liner, and weld and destruction test results for geomembrane liner placement and HDPE pipeline fusion. The record of construction reports and as-built engineering drawings are signed by professional engineers of the State of Nevada. For projects supervised by Kinross, documentation includes contractor engineering inspection reports and as-built drawings, and post construction engineering review report and sign-off.

RMGC retains hardcopy archives of engineering and QA/QC records in the engineering vault located in the Administration building and/or electronic format stored in project files on the RMGC Technical Services Drive.

As discussed in previous Detailed Audit Findings Reports (April 2007, August 2010, January 2014, and February 2017) appropriately qualified personnel reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved. Similarly, appropriately qualified personnel reviewed, and approved construction of facilities built since the 2016 ICMC recertification audit.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

As part of the application for the Phase W expansion project, RMGC developed a *Monitoring Plan*, dated December 2016, that includes procedures for groundwater sampling and for wildlife inspection and mortality management. The Plan was based on the EMPM, dated December 2015. The EMPM which contains the groundwater sampling protocol was developed

by appropriately qualified personnel. The EMPM and associated procedures are periodically reviewed and updated to reflect changes in the operations. NDEP reviews and approves all monitoring locations and analysis programs and these are stipulated in the WPCPs. The water quality samples are analyzed by outside laboratories certified in the State of Nevada, using approved analytical methods, as a requirement of the WPCP.

Sampling procedures include instruction on required sampling equipment and supplies; sampler decontamination; purging of ground water wells; sample filtration and preservation; collection of QA/QC samples; and shipping procedures including chain-of custody protocol. The *Monitoring Plan* includes a detailed environmental sampling and analysis program as required by the WPCPs which includes and list of sample sites, frequency of monitoring and parameters required to be analysed. Sampling procedures have not changed since the previous ICMC recertification audit. Information entered on the field form includes the sample location, date, sampler, general conditions, static water levels, pumping rate and start/stop times, gallons evacuated, well specifications, sample temperature, specific conductivity, pH and general remarks.

RMGC does not discharge process water to surface water. RMGC does not monitor surface water quality downstream of the site as there are no perennial streams or other natural water bodies downstream within proximity of the mine site. RMGC does conduct groundwater monitoring in 20 monitoring wells (eleven at Round Mountain and nine at Gold Hill) on a quarterly basis for a suite of regulated parameters that include WAD cyanide.

The TIF, process ponds, leach pads and related systems are inspected daily by operators who are required to report any wildlife mortalities. RMGC environmental personnel conduct a weekly inspection of the TIF, which includes observation of wildlife where open process solutions are stored. Mortalities are recorded and RMGC submits quarterly Wildlife Mortality Reports to NDOW. There has been a total of 27 mortalities between July 2016 and September 2019 listed as associated with permitted solutions, i.e., mortalities related to ponding or distribution pipeline breaks on the leach pads or found in or near the TIF or process ponds.

The monitoring program is designed to adequately characterize groundwater quality and wildlife mortalities and monitor trends and significant changes and has been approved by and scrutinized by NDEP and NDOW and are required by the WPCPs and IAPPs.

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

Standards of Practice

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

The operation is: ■ in full compliance

in substantial compliance
not in compliance…with Standard of 5.1.

Summarize the basis for this Finding/Deficiencies Identified:

As a condition of its Reclamation Permit with the State of Nevada, and in accordance with state and federal regulations governing the reclamation of mined lands, RMGC submits a Comprehensive Reclamation Plan and Bond Cost Estimate for review and approval by the NDEP and the Bureau of Land Management (BLM), the federal land manager.

RMGC submitted a revised Reclamation Plan and Bond Estimate in October 2017. The Plan is an update to the Reclamation Plan and Bond Cost Estimate, for Reclamation Permit #0060 previously amended in September 2014 for the expansion of operations at the Round Mountain Mine and development of the Gold Hill site. This latest Plan (Phase W Amendment) covers the Phase W Expansion and includes expansion of cyanide facilities for the NDED Leach Pad and NDED Plant.

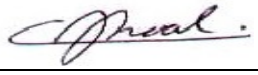
The reclamation activities and associated technical criteria provided in the 2017 Plan address all aspects of the operation including the following cyanide facility components: mill and flotation facility; tailings impoundments and associated ponds, ditches and pipelines; heap leach facilities including of associated ponds, plant, and interim fluid management; process and administration facilities; stormwater diversion ditches and ponds; monitoring and production wells; and updated process fluid management costs for heap leach and tailings facilities. The Phase W Amendment contains a summary of closure measures planned for cyanide facilities in sufficient detail to allow estimation of third-party implementation costs.

The Phase W Amendment presents a general project schedule that addresses approximate operational time frames, closure, reclamation, and post-mining monitoring for both the Round Mountain and Gold Hill areas. The schedule includes process fluid stabilization for the heap leach facilities and the tailings impoundments, as well as demolition and reclamation of milling and process facilities.

RMGC is required by the NDEP and BLM regulations to review and update its reclamation plan and associated costs at least every three years (NAC 519A.380). RMGC also updates its reclamation plan as any mine components change and during major permit revisions, as necessary. The most recent update (Phase W Amendment, dated 3 October 2017) was used as a basis for the latest cost estimate approved by NDEP and BLM for setting the reclamation bond.

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

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



Round Mountain Gold Mine — Name of Mine
Signature of Lead Auditor
6 March 2020 — Date

Summarize the basis for this Finding/Deficiencies Identified:

As a requirement of the Plan of Operations Reclamation Permit, RMGC must update the reclamation bond cost estimate as least every 3 years. The estimate includes all reclamation costs for the mine operations including cyanide-related decommissioning measures. The most current estimate was completed in October 2017 using information provided in the revised Reclamation Plan and Bond Estimate dated October 2017 for the Phase W Amendment. The estimate was undertaken by RMGC and SRK Consulting (SRK) was retained to complete a final review. The estimate is derived using the most current version of the Standardized Reclamation Cost Estimator (SRCE), a cost estimating program developed by BLM and NDEP to prepare annual bond updates. The SRCE estimates are based upon a third-party government contractor performing the reclamation work and includes indirect costs for Engineering and Design, Contingency, Insurance, Performance Bond, Contractor Profit, Contract Administration, and BLM Indirect Costs.

Decommissioning planning requirements are driven by regulation, and have not changed since the 2016 audit, and include requirements for estimating third-party costs as the basis of an annually updated bond with the NDEP and BLM. This annual commitment is not a regulatory requirement and is based on an agreement between RMGC and the two agencies. BLM and NDEP review the closure and reclamation procedures and cost estimate jointly for completeness and bond sufficiency. RMGC also updates its reclamation bond during any Minor or Major Modification to the WPCP or Plan of Operations. BLM and NDEP review the closure and reclamation procedures and cost estimate jointly for completeness and bond sufficiency. The BLM currently holds three reclamation bonds, which guarantee surface reclamation for operations conducted by RMGC under its Plan of Operations.

6. WORKER SAFETY Protect workers' health and safety from exposure to cyanide.

Standards of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

RMGC operates several management plans across departments and cyanide facilities with associated work procedures and practices that are applicable to cyanide related tasks. These include:

- *Leach Pad Operator SPM* which includes procedures on general safety, health and safety standards, chemical safety, working around water, safe access to the Reusable Pad, use of spotters, solution sampling, ground working, inspections and training requirements, pipe positioning, connections and removal, operation of valves and other specific task procedures.
- *SPM for ADR, Dedicated and Gold Hill ADR* which details safe work practices including general safety, chemical safety (including cyanide), environmental awareness, carbon plant operations, use of spotters, tool safety, towing trailers, truck mounted/portable compressor safety, working around water, working on the ground. Standard operating procedures are provided for management of cyanide, addition of caustic and control of pH. This SPM and procedures also apply to the VCICs constructed since the 2016.
- *Cyanide Safety* including PPE requirements, general precautions and safety rules, effects of cyanide exposure, first aid and medical treatment, and instructions for the inspection and maintenance of equipment including decontamination.
- *Sodium Cyanide Addition to Leach Circuit* which instructs on the safe addition of 30% sodium cyanide from totes into the leach circuit.
- SOP *Working in and Around Solution Ponds, Sumps and Solution Ditches* sets out safe working practices when working around solution ponds.
- SOP *Multi and Single Stage Meters* is applicable to all departments and describes the operation and calibration of portable hand-held devices (Altair 5X meters) for the detection of hydrogen cyanide.

SOP Offloading Chemicals to Bulk Storage details the roles and responsibilities of workers, procedures to be followed prior to and during offloading including required PPE. Confined space entry is deemed a high-risk activity and a *Confined Space Program* has been developed to ensure the health and safety of workers and details the requirements for non-permit and permit entry, allocates roles and responsibilities training and permitting requirements.

The use of appropriate PPE is a compulsory requirement for all employees and contractors. Basic minimum PPE requirements comprise a hard hat, safety eyewear, safety shoes with toe protection and high visibility clothing. Production areas require the use of safety glasses with side shields. Additional PPE requirements apply for certain areas or tasks including those involving cyanide. The Mill and Ore Processing SOP Cyanide Safety the use of hard hat, steel toed shoes, safety glasses, goggles, face shield, neoprene gloves and coveralls and steel toed rubber boots when working with sodium cyanide solutions; and dust respirators are specified where there is a danger of inhaling sodium cyanide dust. Any atmospheres with unsafe levels of HCN require the use of self-contained breathing apparatus. When performing maintenance work on cyanide tanks, lines, pumps or associated infrastructure, the equipment is required to be decontaminated by rinsing and flushing before work commences.

Working in the vicinity of solution ponds, ditches or where standing water may be contained, require the use of a life jacket and waist belt when on slopes for a prolonged period. Use of leather or chemical resistant gloves and a sample pole for sample collection is also specified.

SOP Offloading Chemicals to Bulk Storage details PPE requirements specific to chemical offloading activities including for liquid sodium cyanide and require the use of goggles, face shield, and chemical resistant gloves and suit. PPE cabinets are maintained at bulk liquid cyanide unloading points and contain splash shields/goggles, Tyvek suite/overalls, boots and gloves. Pre-offload checks are carried out by both the delivery driver and RMGC employee who attends the delivery with checks and observations noted on a *Bulk Chemical Delivery Report.*

ADR Plant and Mill procedures require that prework inspections are conducted daily by the Shift Supervisor. Additional planned inspections include a weekly cyanide specific inspection, and a monthly Manager's health and safety inspection which is conducted on all operational areas. The *Leach Pad Operator SPM* requires daily Supervisor and Pad Crew Lead inspections to assess any issues including as liquid ponding, bird netting and wildlife mortality.

RMGC continues to implement a site wide Management of Change Procedure (MOC) as part of their Health and Safety Management Plan. All departments have access to the Management of Change (MOC) Packet of forms which are retained by the Safety Department. The initiator provides a description of the change and identifies stakeholders to be involved in the MOC evaluation including Health, Safety and Training and Environmental Departments. The forms also provide a stakeholder map to guide the appraisal stage in which the cyanide code is specifically identified as consideration.

Worker input on health and safety matters is obtained through several mechanisms where feedback can be obtained. RMGC maintains an open-door policy whereby workers can directly approach Supervisors or the Safety Department with any initiatives, ideas or concerns. Toolbox talks are held daily which are also attended by the Safety Department and information regarding incidents or spills are shared operation wide by email to which recipients can respond. Each department holds a pre-shift meeting which includes reciprocal discussion with workers on health and safety or environmental topics including cyanide. The Continuous Improvement (CI) Department noted in the 2016 recertification audit remains in place and continues to implement a system of action boards at various departments on which suggestion cards can be placed on topics such as Environment/Safety, Quality, Production and Cost Savings.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 6.2.

Summarize the basis for this Finding/Deficiencies Identified:

To limit the potential for evolution of hydrogen cyanide gas, RMGC manages process pH levels. Within the Mill, the pH of Leach Tank No. 1 is monitored on a two hourly basis and Leach Tanks No. 2 and No. 3 every 4 hours. CIL Tanks No. 1 and No. 6 are checked every four hours and CIL Tanks Nos. 2 through 5 every eight hours. Adjustments to pH levels are undertaken on the basis of readings. Set points guidelines require that pH is maintained between pH 10.0 and pH 10.5 with a goal of 10.3. Review of a selection of Leach/CIL Operator Reports covering the last three years indicate that pH is being maintained with the set-point guidelines.

The SPM applicable to the ADR facilities specifies that process solution is checked every two hours and that pH 9.6 or above is maintained. If pH falls below this level, operators are required to notify a supervisor, either secure or ventilate plant areas, monitor atmospheric conditions hourly and minimise time spent in the plant. Within the VCIC plants, pH is maintained at between 10.3 and 10.4 with manual sampling undertaken three times a day. Lime is added to the heap leach pads by means of lime skids generally at a rate of 5 lb/ton to provide pH control.

Areas where hydrogen cyanide may be generated and workers exposed have been identified at the Mill, ADR Plant, Gold Hill ADR, NDED Plant, SDED Plant and the VCIC plants. These areas are fitted with 18 dedicated fixed HCN monitors set to alarm at 4.7 ppm and 10 ppm hydrogen cyanide. Workers in high risk areas or undertaking tasks that may result in potential exposure are also provided with portable HCN monitors for use in their tasks. During the field inspection fixed HCN monitors at the SDED Plant and the Mill were underreporting HCN levels with negative values indicated. The instruments were immediately recalibrated and subsequent to the field visit, RMGC issued a memo to operators to note any monitor under readings (less than -0.5 ppm) and recalibrate instruments in such an instance.

Fixed HCN monitors are calibrated on a scheduled frequency of 28 days through a system of work orders generated by preventative maintenance software JDE. Maintenance records are retained by the Maintenance Department.

Altair 5X monitors are available for use in the Mill and ADR plants and are set to alarm at HCN levels of 4.5 ppm and 10 ppm. The units are calibrated as a minimum every 28 days. Operators are trained to calibrate the instruments more frequently before each shift, or use, at bump-test calibration stations located at each department and in key work areas. The calibration stations record key instrument parameters such as serial number and calibration date. This information is periodically downloaded and tracked by the Safety Department and maintenance and repairs carried out as necessary. The calibration records are retained on MSA Linkpro calibration software which is managed by the Safety Department.

RMGC maintains an *Emergency Response Manual* that contains evacuation instructions. Upon the sounding of an alarm or notification by a supervisor, workers are required to evacuate the building or work area and proceed to an assigned assembly area. Each department has identified their own evacuation routes and shutdown procedures which are reviewed as part of each employee's site and area orientation.

Onboarding training describes the minimum level of PPE required for working. Following initial induction, workers receive area orientation and department specific training that includes SOPs for that particular work area and associated tasks, and any additional or specific PPE that is required for cyanide related tasks. Liquid cyanide deliveries to receiving tanks at various locations around the operations are assessed as a high-risk activity and SOP Offloading Chemicals to Bulk Storage details specific PPE requirements.

Signs warning of cyanide use and indicating cyanide facilities were prominently posted at key locations throughout the operations. Pond areas are also signed. No smoking and drinking signs are also posted in key areas, as are mandatory PPE requirements. Written correspondence from Cyanco confirms that dye is being added to each batch of liquid sodium cyanide to allow for clear identification.

Showers and eyewash stations are located at strategic positions where processes involving cyanide are undertaken, delivery and off-loading areas and bulk storage areas. A sample of eyewash stations were checked during the field inspection and found to be operational. Since 2016 three new VCIC plants have been installed; however, only the VCIC at the NDED Plant was observed to have an emergency shower and eyewash station at the upper deck where operators work near to open solutions. RMGC subsequently conducted a risk assessment of these locations and installed new showers and emergency stations on the upper deck of the plants at the SDED and WDED pads. Each Department conducts area checks every shift that including documented shower and eyewash station inspections. Scheduled maintenance and inspections are also conducted by the Fixed Maintenance Department.

Several areas are also equipped with portable eyewash stations including mobile pressurised type eyewash cannisters which can be moved between locations. During the field inspection one portable eyewash station located at the Gold Hill ADR was observed to have wash water dated 2015 and out of expiry date. Subsequent to the field audit, a permanent shower was installed at this location and photographic evidence provided.

Approximately 250 dry chemical fire extinguishers (ABC type) are located at key areas around the plant. The Safety Coordinator/Fire Extinguisher Technician maintains an Access software database of fire extinguishers which records the date of last inspection and when a change out is required. A monthly *Fire Inspection Checklist* is generated from the database and issued to a responsible person in each department to check fire extinguisher pressures, expiry date and condition. Fire extinguishers are also serviced every year and changed out as required per Nevada state requirements.

All unloading and storage tanks containing cyanide were labelled as containing cyanide. Cyanide containing pipework for the most part was identified as containing cyanide with flow direction indicated. However, during the field component of the audit, several areas were noted where pipework did not have adequate signage or where flow direction was not shown. Subsequent to the field audit, RMGC completed an inspection of the ADR, Gold Hill ADR, SDED Plant, NDED Plant, and SDED and WDED VCICs to identify and appropriately label any areas of

deficient labelling. RMGC subsequently provided photographic evidence of installation of appropriate labelling at these locations.

Material Safety Data Sheets (MSDS) are maintained on a computerised system accessible to RMGC employees and are available in English. Workers who do not have access to the electronic system may request a copy of the relevant MSDS from their Supervisor and during onboarding, workers are trained to request MSDS from Supervisors. Cyanide MSDS sheets in English are also posted at key locations in the Mill and ADR plants where cyanide is used including on cyanide storage tanks. The MSDS sheets also include information on first aid procedures. Cyanide antidote kits are available in refrigerators at strategic locations within operating areas and include procedures for administering the antidote. The SOP *Cyanide Safety* is available in the Mill and Ore Processing departments and sets detailed first aid procedures.

RMGC's incident investigation process requires that all incidents are investigated and documented. The responsible manager is also required to conduct an investigation and root cause analysis, assign corrective actions as may be appropriate and conduct a final risk assessment and sign-off following completion of corrective actions.

The Safety Department electronically captures and tracks incidents from each department by scanning in the respective forms and reviewing to ensure that actions are closed. A review of incident records from 2016 through to 2019 identified no lost time injuries, or hospitalizations associated with cyanide release incidents. The majority of recorded cyanide related incidents were for actions taken around high HCN readings from portable and fixed monitors and/or process upsets resulting in liquid overflows or leaks.

6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 6.3.

Summarize the basis for this Finding/Deficiencies Identified:

Amyl-nitrite cyanide antidote kits, medical oxygen, activated charcoal (Actidose-Aqua) and other first aid items are stored within refrigerators/cabinets strategic locations in the cyanide facilities. The refrigerators are visually checked each shift by operators to confirm the seals are intact, with a more detailed monthly inspection completed by the Emergency Response Coordinator (ERC) to check that items are within expiry dates. The inspections also note the temperature of the fridge and condition of other first aid items such as non-rebreather oxygen masks, resuscitator mask, gloves and Tyvek suite. Following inspection, refrigerators containing cyanide antidotes are then sealed with a red tie to identify if the kits have been used or opened.

The amyl nitrite ampoules were noted to be out of date due to an interruption to supply. RMGC continued to retain the expired stocks of amyl nitrite upon advice of the corporate Medical Doctor and on the basis that medical oxygen was also available at key locations. Subsequent to the field audit RMGC re-established supply chains with antidotes restocked on 28 October 2019.

Two Cyanokit antidotes (Hydroxocobalamin) are retained within a temperature-controlled room at the RMGC Clinic for intravenous application. Clinic personnel conduct monthly inspections to ensure that the antidote kits remain within expiry date. An additional two Cyanokits are retained within the site's ambulance stored within a climate controlled bay. The kits are inspected on a monthly basis by the ERC to check expiry dates. A review of the most recent checklists and inspection confirms the clinic and ambulance Cyanokits are within expiry dates of June 2020.

The Emergency Response Team (ERT) maintains eight self-contained breathing apparatus (SCBA) with air cylinders and a further eight backup cylinders housed at the RMGC fire station (Firehouse). The units are inspected monthly as part of a *Command Vehicle Inspection* checklist. A stock of Tyvek suites and chemical resistant gloves is also retained at the Firehouse for use by the ERT when responding to an emergency. Subsequent to the field component of the audit, the checklist was updated to include checks of the Tyvek suites and gloves.

Radios and cellular mobile phones are used as the primary forms of communication. Radios have an emergency channel which is monitored by site security and the emergency response teams. Supervisors and management level personnel are required to carry a cellular telephone and light vehicles are fitted with radios for communication. Adhesive information labels with emergency reporting protocol including and forms of communication are provided to personnel for attaching to hard hats.

Showers and eyewash stations are located at strategic positions where processes involving cyanide are undertaken, delivery and off-loading areas and bulk storage areas.

RMGC continues to maintain an *Emergency Response Manual* (ERM) which contains instructions and responses to be followed in the event of an emergency. The ERM sets out *Hazardous Material Response Guidelines* and includes *a Cyanide Spill Response Plan* (CSRP) detailing responses to cyanide spills and leaks. The plan also describes the location of safety equipment including cyanide antidotes and portable oxygen and requirements for inspection of this equipment; and risk minimization measures through inspection of cyanide infrastructure and containment. In the event of emergency, workers are trained to follow the *Emergency Reporting Protocol* which requires notifying security. Emergencies during transport that may result in exposures are the responsibility of Cyanco and TransWood who have developed a separate emergency response plan and procedures.

RMGC continues to maintain an onsite clinic staffed by 10 medical personnel and is operational 24 hours a day with capability to provide medical assistance for cyanide exposures. RMGC

operates an ambulance for responding to medical emergencies, housed at the Fire Station/Firehouse along with a command/rescue vehicle and a fire truck which is the property of Round Mountain Fire Department (RMFD). Onsite first aid and medical assistance capability is also provided through an active Emergency Response Team which currently comprises 40 members trained to provide first aid and initial medical assistance. Advanced Emergency Medical Technicians (AEMTs) are also qualified to apply Cyanokits intravenously. If required, additional medical assistance may be provided by the Nye County ambulance service under a Reciprocal Aid Agreement. Eight-hour annual refresher first aid training is also provided to all personnel including first aid responses to RMGC designated "Code Blue" emergencies where radio silence is required.

Should care be required at offsite medical facilities, patients would be transferred to regional hospitals identified as being capable of delivering the required level of care. RMGC maintains a Reciprocal Aid Agreement, dated 2013, with Nye County for provision of ambulance services whereby RMGC may make use of Nye County Ambulance Services if required and the County may, upon agreement, use RMGC ambulance services for any community emergencies. RMGC has also maintained a list of air ambulance services should these be required for a medical emergency and transfer of patients to regional hospitals. RMGC maintains regular dialogue with Banner Churchill Hospital, Fallon and Renown Hospital, Reno regarding the potential treatment of cyanide exposure patients. While a Memorandum of Understanding (MOU) has not been agreed with either hospital, both facilities have been made aware through discussions that cyanide exposure treatments may be required. The Clinic Supervisor and ERC are confident of both hospital's level of care and ability to treat and monitor cyanide exposures.

Since the 2016 recertification, RMGC has completed four desktop emergency scenarios to test the Kinross Crisis Management System (KCMS) in May 2017, May 2018 and two in July 2019. These have included cyanide transporting vehicle accidents and collision scenarios where cyanide has been released to the environment and persons exposed. Each scenario was managed through an online crisis management software tool, EMQnet, with response actions tracked on the system. After each mock scenario, the response performance was appraised, and feedback provided. RMGC ERT also conducts annual joint refresher training with the Hadley Fire Station for training on Hazardous Waste Operations and Emergency Response Training (HAZWOPER). The course is tutored by Truckee Meadows Community College (TMCC) and includes hazardous material emergency response, hazardous chemical management, decontamination and emergency procedures.

Whilst RMGC has completed desktop drill scenarios and training exercises, during the field audit it was noted that field drills to test the full emergency response procedure in accordance with the ERM have not been completed since the 2016 recertification audit. Due to the high level of training of both RMGC ERT and Nye County emergency services, it is the opinion of the auditor that this did not present an immediate or substantial risk to health, safety or the environment. Subsequent to the field component of the audit, RMGC completed a field mock drill exercise on 11 December 2019 involving members of the RMGC ERT and RMFD HAZMAT teams. The scenario involved a release of cyanide solution due to a failure of a valve at the

bulk cyanide tank resulting in exposures to two workers to hydrogen cyanide gas and an unconscious patient. The drill record detailed the drill participants, a timeline of responses, a critique of the response and photographs. Corrective actions were identified and implemented.

7. EMERGENCY RESPONSE Protect communities and the environment through the development of emergency response strategies and capabilities.

Standards of Practice

7.1 Prepare detailed emergency response plans for potential cyanide releases.

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

Summarize the basis for this Finding/Deficiencies Identified:

As outlined in Standard of Practice 6.3 the ERM contains instructions and responses to be followed in the event of an emergency.

The ERM and CSRP is complemented with the KCMS and *Kinross Crisis Management Plan* (KCMP) which sets out the management structure, roles, responsibilities and communication structure for crisis level emergencies. Depending on the severity of an incident different levels of management team would be engaged and comprise the Site Crisis Management Team (SCMT), Regional Crisis Management Team (RCMT) and Corporate Crisis Management Team (CCMT) depending on the level of incident severity, which may be classified as low, medium and high respectively.

RMGC has several other plans applicable to spills and emergencies including an *Integrated Contingency Plan* (ICP), *Spill Contingency Plan, Emergency Action Plan Cells A & B* (EAP) for the Tailings Impoundment Facilities and a *Fluid Management Plan*.

The CSRP and sets out responses and procedures that are to be followed for the following potential situations: catastrophic release of HCN from storage or process facilities; releases during unloading; releases during fires and explosions; pipe, valve and tank ruptures; overtopping of ponds; power outages; uncontrolled seepage; failure of cyanide treatment; and failure of tailings impoundments.

The ICP addresses potential hazards arising from potential leaks or releases including of cyanide solution and sodium cyanide with response procedures aligned with that of the ERM. The EAP describes measures that would be taken in the event of an emergency condition at the Tailing Impoundment Facilities including the coordination of emergency responders.

Transportation emergencies are the responsibility of Cyanco and their transporter TransWood and both organisations makes use of the Cyanco emergency response plan prepared in this regard. TransWood exclusively delivers liquid sodium cyanide in bulk by road tanker and has documented evaluations of the road transportation route, considering population density, infrastructure, road condition, proximity to water bodies, and the likelihood of poor weather affecting driving conditions. The routes are formally evaluated every three years. Emergency response for TransWood deliveries are coordinated by Cyanco including communication coordination with local emergency responders.

The general emergency response directs that the person discovering the emergency follows the Emergency Reporting Protocol. Where there is a medical emergency and the ERT ambulance is required, a "Code Blue" for radio silence will be announced by a Supervisor and security and the emergency will be handled according to emergency response procedures contained within the ERM. The ERM requires that the person initiating the emergency administers first aid if necessary and if safe to do so. The *Cyanide Safety* SOP sets out detailed procedures for first aid and medical treatment in the event of a cyanide exposure including the use of cyanide antidote kits. First aid and medical assistance is also provided through the ERT who are trained in emergency response procedures with AEMTs also qualified in procedures for intravenous application of Cyanokits. All workers undertaking cyanide related tasks receive training on cyanide awareness and antidote use which includes first aid response in the event of an emergency.

Protocols for cyanide releases require that the person discovering the leak or spill is to immediately report the observation to a supervisor, identify a second person to provide a safety backup and secure the area by means of a barricade.

Response personnel are required to don the appropriate PPE, assess the situation, stop the source of the leak, determine the quantity of the leak or spill, if in or out of containment, and ambient air readings. Upon assessing the situation, the RMGC Emergency notification procedure is to be followed by the designated responsible persons as listed in the ERM. Responders are also required to set up a decontamination zone for personnel moving to and from the affected area.

Procedures for control of releases are described. Approval from the Environmental Department is required prior to neutralization of spills out of containment. Any impacted soils would be excavated for disposal to an active leach pad. Residual cyanide contaminated soil that cannot be excavated would, with the approval of the Environmental Department, be treated with calcium hypochlorite. All actions undertaken during a cyanide release incident are to be recorded in an incident response report or log.

The Safety Department is assigned the role of coordinating any subsequent investigation following an emergency incident and reviewing and updating procedures and the emergency plan if necessary.

The ERM sets out external communication protocols which summarises the procedures contained in the KCMP. The level and detail of communication is dependent on the overall severity of an incident and includes procedures for communicating with the public, employees, government, regulators, the media and other stakeholders.

7.2 Involve site personnel and stakeholders in the planning process.

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

Summarize the basis for this Finding/Deficiencies Identified:

Members of the ERT are drawn from the workforce and conduct regular training exercises during which feedback from the ERT can be obtained and procedures revised as necessary. The KCMP details personnel and management structures for crisis management and is periodically tested through mock drills with feedback provided by participants. External stakeholders such as Nye County HAZMAT team (comprising the RMFD HAZMAT team) and medical responders, and Cyanco/TransWood are also regularly involved with desktop scenarios to test the KCMS and where feedback can be provided. Periodic desktop testing of the KCMP involves emergency coordinators with varying levels of responsibility in desktop emergency scenarios. Members of the RMGC ERT, the Environmental Department and Warehouse Department also undertake and complete yearly HAZWOPER training including on HAZMAT response. Additionally, the ERT conducts monthly training exercises on elements of emergency response.

RMGC entered into an MOU with the Nye County HAZMAT and Emergency Response team in 2008 as part of implementation of an initiative known as Awareness and Preparedness for Emergencies at Local Level (APELL) for mining. The agreement provided for the integration of Nye County and RMGC emergency plans and remains in place. RMGC primary point of interaction with Nye County entities is with Hadley Fire Department and the RMFD HAZMAT Team. The RMFD maintains a HAZMAT vehicle and trailer at the town of Hadley containing equipment necessary to respond to a hazardous material spill.

RMGC continues to maintain an extensive community outreach program. Community engagement is primarily through monthly community meetings and with business sector forums and annual Town Hall meetings which are open to the community. These meetings include discussion sessions with opportunities to discuss RMGC's activities including any concerns about cyanide management and emergencies that may arise. In response to Kinross' corporate requirement RMGC conducted a Community Perception Survey, the results of which were discussed in the Town Hall meetings. Further awareness is provided through hosted mine tours and the provision of brochures which include information on first aid and basic information regarding cyanide management. RMGC also continues to publish a fortnightly Valley View newsletter containing information about mining activities and may

periodically include information related to safety and cyanide management. Much of the RMGC workforce is drawn from and representative of nearby and regional communities and, through induction and training, are aware of mining and cyanide related risks and responses that would apply in the event of cyanide emergency.

The MOU and APELL agreement with Nye County addresses ambulance services, HAZMAT and fire response services. Many of the ERT are also members of the Hadley/RMFD HAZMAT and Fire Departments and therefore these responders are familiar with the mine's emergency response planning process. RMGC has maintained periodic discussions with Hospitals located at Fallon and Reno regarding the potential for requirement of services for cyanide exposure patients in an emergency.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 7.3.

Summarize the basis for this Finding/Deficiencies Identified:

Primary and secondary ERCs and their contact information are listed in the ERM and KCMP. The ERM also details the roles and responsibilities for emergency response including who may commit resources necessary to respond to an emergency. The ERT Coordinator is authorised to contact various emergency response groups for advice, equipment and information. Members of the ERT are identified in a spreadsheet which lists each individual by department, their level of training and shift patterns worked. The list is kept current and periodically provided to each department including security. The ERC also maintains a list of current contact telephone numbers for each ERT member which is provided to security.

The duties and responsibilities of the ERC and ERT are detailed in the ERM. Additional requirements for ERT members and duties and responsibilities are provided in the ERT Policy Handbook. For crisis level events the KCMP sets out the management structure, roles, responsibilities and communication structure depending on the level of severity of the incident.

Emergency response equipment is listed in the ERM and provides an inventory of cyanide antidote kits. Cyanide antidote kits, medical oxygen sets and activated charcoal are retained in fridges in various departments and inspected by operators daily during each shift and monthly by the ERC. The ERT maintains eight SCBAs and a further eight backup cylinders, Tyvek suites and chemical resistant gloves. These are inspected monthly. Equipment in the ambulance and rescue vehicle are subject to monthly inspections by the ERC. Emergency response equipment in the HAZMAT vehicle and trailer and fire truck are maintained by Nye County emergency services and are subject to separate inspection protocols in accordance with county and state requirements.

During the field audit, the ERM was found not to accurately reflect the available emergency response equipment such as locations and numbers of cyanide antidotes, and SCBA devices available in the Firehouse. RMGC revised the ERM on 25 November 2019 to provide an up to date inventory of cyanide antidote locations, activated charcoal, SCBA kits and other emergency response equipment.

RMGC has continued to maintain an MOU and agreements with Nye County for emergency response and review of KCMP desktop scenario drill records confirm the involvement of Nye County services in communications during such tests. Periodic communication has been maintained with Banner Churchill Hospital in Fallon and Renown Hospital in Reno regarding the potential receipt of cyanide exposure patients. Cyanco have been involved with KCMP testing scenarios during which information was communicated to assist with transport related emergency scenarios.

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

The operation is:
- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 7.4.

Summarize the basis for this Finding/Deficiencies Identified:

In the event of an emergency the ERM provides emergency contact numbers for RMGC emergency response personnel and management, external response agencies and stakeholders. It sets out roles and responsibilities for communicating with outside agencies, regulators and the press. It also sets out roles and responsibilities for employees, the person initiating an emergency procedure, the area supervisor, security, human resources department, maintenance department, ERT and General Manager.

The EMPM sets out procedures for internal notification of spills and notification of the relevant authorities, Kinross corporate departments and ICMI as required.

Communications guidelines are provided in the KCMP. The KCMP allocates responsibilities for developing communication strategies for internal/external stakeholders to an External Relations Advisor with a Spokesperson designated for dialog with communities, media and other external stakeholders. The KCMP includes a list of key stakeholders, drawn from the EMQnet system and includes RMGC SCMT members, emergency services, government and regulatory agencies, media, Non-Governmental Organizations (NGOs), contractors and insurers. Contact information for hospitals and medical facilities is available on the EMQnet Contact Directory and within the EMP. The Clinic retains a list of emergency contact phone numbers for RMGC Dispatch, security, the Clinic Supervisor, ERC and air ambulance services.

The Corporate Responsibility Specialist also maintains a Stakeholder Contact List, focused toward external communications, for media, public and community organizations, government and elected officials, government agencies, businesses and NGOs.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The ERM contains the CSRP which details responses in the event of a cyanide release or spill. Following reporting of the release/spill, the area is secured and the ERT activated if required. The quantity and location of the release or spill is assessed and if still within built containment, is pH controlled through the addition of sodium hydroxide and if required, subsequently treated with calcium hypochlorite. Larger spill volumes are pumped or evacuated from containment to tanks, vehicles or ponds and would not require the addition of calcium hypochlorite. Granular calcium hypochlorite is stored in six 50-gallon drums at the ADR Plant. Procedures require that calcium hypochlorite is only to be used with prior approval of the Environmental Department. Depending on the situation requiring its use, the Environmental Department will develop instructions for calcium hypochlorite preparation.

Construction of temporary earth berms are required where cyanide releases may or have spread beyond built secondary containment structures. Impacted soils are required to be excavated for disposal to an active leach pad. Any residual cyanide contaminated soil that cannot be excavated can, with the approval of the Environmental Department, be treated with calcium hypochlorite.

The EMPM also details spill response procedures (*Spill Response Procedures*) for any unpermitted discharges to the environment (air, soil, surface or groundwater). Procedures for responding to cyanide spills are aligned with the CSRP and include additional instructions such as the use of spill kits, absorbent materials or other containment measures. The EMPM requires post excavation monitoring of any affected area and prescribes sampling frequencies depending on spill size. Samples are submitted to a Nevada certified laboratory for analyses and remedial measures are considered complete if analysis demonstrates WAD Cyanide at <0.02 mg/l. Internal notification of spills requires completion of a Spill/Release Record Form 0490. If the release meets a reportable quantity, notification of the relevant authorities is required. In the event of a major or crisis event, the notification procedures set out in the Emergency Response Plan and KCMP are followed.

Given the arid site setting, absence of surface waters and the depth to groundwater (generally residing at approximately between 150 to 400 feet below ground), the risk of contamination of

drinking water supplies is low. Nevertheless, provision of alternate drinking water supplies would be addressed in the KCMP depending on the severity of any emergency and the requirement for alternate drinking water supplies. In such an event water supplies would be obtained from the town of Hadley.

While emergency plans do not strictly prohibit the use of sodium hypochlorite, ferrous sulphate and hydrogen peroxide, RMGC is located in an arid region of Nevada and there are no open surface water bodies in the vicinity. As such the risk of contamination of any surface water bodies is considered highly unlikely. Transportation emergencies resulting in spills would be remedied by TransWood and Cyanco and their in-place emergency response plan addresses remediation and prohibits the use of cyanide neutralization chemicals in or near surface water bodies.

The EMPM spill response procedures include determining the quantity and concentration of the spill based on concentration and volumes to calculate the weight of sodium cyanide spilled. The procedures include instruction for excavation of any impacted soil and sampling at a frequency of at least one sample per 100 feet of affected area with samples to be submitted for chemical analysis at an accredited Nevada laboratory. Remedial measures are considered complete if analysis demonstrates WAD Cyanide at <0.02 mg/l.

There are no nearby surface water bodies in the vicinity of the operations that would be considered a receptor in the event of a release and therefore no specific surface water monitoring requirements. RMGC continues to maintain a series of groundwater monitoring wells that are monitored for impacts, and leak detection systems. WPCPs for RMGC require quarterly monitoring of groundwater quality including WAD cyanide. Permit conditions require that any release is reported to the NDEP Bureau of Mining Regulation and Reclamation who would then instruct any specific groundwater monitoring requirements depending on the nature and size of the release/spill.

Soil sampling methodologies are detailed in the CSRP and spill response procedures contained in the EMPM. Water and groundwater collection and sampling procedures are described in the RMGC *Monitoring Plan* including for the collection of samples, sample preparation, data recording and shipping requirements. Quality assurance/control are also detailed in the EMPM.

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

The operation is:
- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 7.6.

Summarize the basis for this Finding/Deficiencies Identified:

The ERM is reviewed by the ERC at least annually or as needed such as following an emergency or drill. The latest revision is dated February 15, 2019.

The Safety Department is required to review emergency procedures and responsibilities in management meetings, periodically review guidelines and update procedures at least annually and also critique emergency procedures after they have been initiated. Following any emergency, the Safety Department is also required to review procedures and update the emergency plan as necessary.

Since the 2016 recertification, RMGC has completed four desktop emergency scenarios to test the KCMS in May 2017, May 2018 and two in July 2019. These have included cyanide transporting vehicle accidents and collision scenarios where cyanide has been released to the environment and persons exposed. Each scenario was managed through an online crisis management software tool, EMQnet, with response actions tracked on the system. After each mock scenario, the response performance was appraised, and feedback provided. RMGC ERT also conducts annual joint refresher training with the Hadley Fire Station for training on Hazardous Waste Operations and Emergency Response Training (HAZWOPER). The course is tutored by TMCC and includes hazardous material emergency response, hazardous chemical management, decontamination and emergency procedures.

Whilst RMGC has completed desktop drill scenarios and training exercises, during the field audit it was noted that field drills to test the full emergency response procedure in accordance with the ERM have not been completed since the 2016 recertification audit. Due to the high level of training of both RMGC ERT and Nye County emergency services, it is the opinion of the auditor that this did not present an immediate or substantial risk to health, safety or the environment. Subsequent to the field component of the audit, RMGC completed a field mock drill exercise on 11 December 2019 involving members of the RMGC ERT and RMFD HAZMAT teams. The scenario involved a release of cyanide solution due to a failure of a valve at the bulk cyanide tank resulting in exposures to two workers to hydrogen cyanide gas and an unconscious patient. The drill record detailed the drill participants, a timeline of responses, a critique of the response and photographs. Corrective actions were identified and implemented.

Since the 2016 recertification RMGC has conducted four emergency desktop scenarios involving cyanide release scenarios in accordance with the KCMP. The scenarios considered both releases and human exposures and were managed through EMQnet as summarized in Standard of Practice 6.3 above. In December 2019, subsequent to the field component of the audit, RMGC also conducted a field mock drill that involved a release of cyanide solution and worker exposures to HCN gas. The drill was critiqued, and corrective actions identified, assigned to a responsible person and completed.

During and after an emergency, the Safety Department is required to prepare a final report for the approval of the General Manager, review procedures and update the emergency plan if necessary. Furthermore, the ERT Coordinator is required to interview each ERT member, prepare a report for the Safety Department, recommend additional training if required and

conduct a critique "debriefing" with all ERT members. Since 2016 there have been no cyanide related emergencies that have triggered the emergency response process. Nevertheless, were such an incident to occur, the procedures described above would be followed.

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

Standards of Practice

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

The operation is:
- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 8.1.

Summarize the basis for this Finding/Deficiencies Identified:

New employees, visitors and contractors are required to complete hazard awareness and recognition training as part of site induction and which includes site safety requirements, cyanide awareness, PPE requirements and emergency procedures. Training is provided over three days and includes a video "Cyanide Code at RMGC" for cyanide awareness, and PowerPoint presentations on Basic First Aid Training and emergency response and reporting.

After initial onboarding, workers receive department specific training that includes area orientation and tour on emergency exits and muster points, demonstration of safety showers and eyewash stations, pond rescue kits, hazardous chemical storage areas, work place SOPs and chemical hazard awareness training. Chemical hazard awareness training includes *Cyanide Safety* which details the physical and chemical characteristics of cyanide, PPE requirements, general precautions and safety rules, effects of exposure, first aid and medical treatment, directions for administering antidotes and oxygen, workplace inspections of cyanide facilities during each shift and maintenance work instructions. This training is supplemented with Cyanco developed videos which include topics on cyanide awareness. Further instruction is provided in a *Cyanide Hazard Awareness and Antidote Training* presentation to anyone working with cyanide. Worker understanding is tested by completing a written multiple-choice exam with a 70% pass mark required.

The ERT receives the same training as other employees. In addition, members of the RMGC ERT, the Environmental Department and Warehouse Department undergo an initial 40-hour HAZWOPER training course. The ERT also undertakes training once a month with each yearly cycle including modules on HAZMAT, HAZWOPER, site orientation, individual skills, patient assessments and treatment and cardiopulmonary resuscitation (CPR) training.

Refresher training is carried out annually as per MSHA requirements comprising an eight-hour annual refresher course and required to be attended by all RMGC employees and contractors.

Workers involved in cyanide related tasks or in areas where cyanide may be used also receive a more detailed annual cyanide refresher training. Annual eight-hour refresher HAZWOPER training attended by the ERT and the Environmental Department is also undertaken jointly with the Hadley Fire Station and tutored by Truckee Meadows Community College.

Training needs and records are tracked through Learning Management System software and training records are retained in compliance with the MSHA requirements which specifies mandatory collection of training information. Records are maintained in both electronic and paper formats including on MSHA 5000-23 training forms as required by the regulator.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

All new employees and contractors are required to attend site induction training which includes cyanide awareness training, site safety requirements and the use of PPE. Thereafter, employees receive area orientation and department specific training including SOPs specific to the task and area. Each SOP is supported by a *Task Card* which details the steps for a specific task or area. The training objectives for a particular work area or department are listed on a *Work Area Orientation Form* and includes any specific requirements for safe working with cyanide and where mixing, unloading, production and maintenance may occur. Department or work area tasks are detailed in SOPs for the operational areas. Sign-off of understanding on the *Work Area Orientation Form* and *Task Card* is required by both the instructor and trainee and includes specific reference to cyanide antidote training and awareness. Employees may not commence with a task until the trainer or supervisor is satisfied that training and task understanding is complete.

Training requirements are tracked by both the safety department and individual departments. Training of Mill operatives is recorded on a training matrix also known as a "Green Sheet" which sets out the necessary training competencies for operators. The matrix is also used to track completed training and other training requirements where an employee may move to another position, work area or department.

Onboarding and MSHA refresher training are provided by the training department of the Safety Department and include training specialists who are required to be MSHA certified instructors. RMGC requires that all trainers certified to teach MSHA specific topics conduct such training at least once every 24 months. Within individual departments, training on task specific SOPs and work area orientation are provided by Department Trainers who are experienced Supervisors or operators. Supervisors also continue to provide ongoing in-field instruction and evaluations.

Per mandatory MSHA requirements, a minimum of eight hours refresher training is provided annually and recorded on form 5000-23. Each department also provides annual cyanide refresher training following the *Cyanide Hazard Awareness and Antidote Training* presentation. Members of the management team, department trainers and those employees involved in implementation of the Cyanide Code are periodically invited to attend training and video sessions provided by Cyanco.

Task observations are required to be undertaken on a frequency of five per month by the Safety Department. In 2019 RMGC implemented a system of dynamic task observations utilising computer tablets with iAuditor software whereby field inspections can be undertaken including observations and evaluation of tasks, with remarks and corrective actions inputted in real time.

The Safety Department records and tracks training programs and needs through Learning Management System (LMS) software which has been in use since 2014. The LMS incorporates a training matrix and curriculum for employees. The training section of the Safety Department retains the MSHA 5000-23 mandatory training information. Training records are retained for the duration of an employee's tenure at the operation as a minimum. Training records indicate the type of training, topics covered and sign off demonstrating understanding. The *Work Area Orientation Form* is required to be signed by both trainer and trainee confirming that training on SOPs and safe working practices including cyanide awareness specific to work areas and tasks have been received and understood.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

All employees that work with cyanide are required to cyanide awareness and task specific training for their areas of work. This training includes emergency response in the event of a cyanide release or exposure. TransWood drivers are also required to receive cyanide awareness training, contractor driver training before being allowed to drive onto site unescorted and to present MSHA required training records to security.

All ERT members are trained in the application of first aid and conduct monthly training on aspects of emergency response. Many members of the ERT are also involved in production, loading and mixing activities in the ADR and Mill, serve in management positions or are involved in aspects related to the management of cyanide.

The ERT and Nye County HAZMAT teams are trained in decontamination procedures, and the use of level A and B PPE and SCBA. Initial 40-hour and 8-hour refresher HAZWOPER training

are provided to the ERT and Environmental Department and includes modules on hazardous chemical management, decontamination and emergency procedures. ERT members are also trained to follow reference documentation used by Nye County including the publications PHMSA 2016 Emergency Response Guidebook and "Hazardous Materials Managing the Incident, Fourth Edition" by G.G. Noll and M. S. Hildebrand.

The ERT conducts monthly training topics on emergency response topics including HAZMAT, patient assessments and treatments and the use of emergency response equipment after which a review of training performance is provided. All members of the ERT are trained to apply first aid including the use of medical oxygen and application of activated charcoal. Additionally, five ERT members are trained as advanced Emergency Medical Technicians and are authorised for intravenous application of Cyanokit antidote.

RMGC continues to maintain agreements and MOUs with Nye County for integrating common emergency response under the APELL arrangement which includes close arrangements with the Hadley Fire Department and HAZMAT teams. A 2013 Reciprocal Aid Agreement remains in place whereby Nye County Ambulance services and equipment may be provided. Many of the RMGC ERT members are also volunteer members of the Nye County Ambulance and HAZMAT response teams and are involved in emergency planning both in the community and at the mine site.

Mock drills are used to train and test competence of emergency responders. Mock desktop emergency drills are undertaken as part of the KCMP and have included the participation of Cyanco and TransWood in scenarios involving vehicle accidents, and through this mechanism are aware of the RMGC's emergency response. Four such mock desktop drills have been undertaken since 2016. Subsequent to the field component of the audit, RMGC completed a field mock drill exercise on 11 December 2019. The scenario considered the release of cyanide solution and generation of hydrogen cyanide resulting in exposures to two workers.

Members of the RMGC ERT, the Environmental Department and Warehouse Department also conducts HAZWOPER refresher training which includes topics on hazardous material emergency response, hazardous chemical management, decontamination and emergency procedures. Evaluations of annual HAZWOPER training are undertaken by TMCC and feedback provided to the participants. Also, subsequent to the field audit, RMGC held a training exercise in November 2019 involving members of the ERT responding to a cyanide exposure patient from a building near to the RMGC Firehouse. A critique was carried out and corrective actions included a debrief of the ERT members on the observations and findings noted during the drill.

Evaluations are carried out on every Code Blue call out event or ambulance run conducted by the ERC and include a review of run sheets to assess the overall response, completeness, accuracy of records and any noted problems.

Cyanide related training is recorded and tracked primarily through LMS software with paper records also retained in archives. Training records observed contain the name of trainer and

trainee, the date of training and training topic(s). Induction training and cyanide awareness training requires that the employee pass a written test to confirm understanding. Work and task area orientation training also requires that the employee demonstrates understanding of safe working practices and tasks to the satisfaction of the instructor or supervisor with sign off required from both parties.

***9. DIALOGUE* Engage in public consultation and disclosure**.

Standards of Practice

9.1 Provide stakeholders the opportunity to communicate issues of concern.

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

Summarize the basis for this Finding/Deficiencies Identified:

RMGC has a well-developed community outreach program managed through the Human Resources Department and the Corporate Responsibly Specialist. Since 2015, RMGC has implemented a *Site Responsibly Plan* (SRP) which provides a framework for planning and implementing stakeholder engagements. The approach has four elements comprising engagement in ongoing stakeholder dialogue, evaluation of the operation's impact on communities, acting to enhance benefits and minimize impacts to communities and monitoring of the social/economic/political context and impacts.

RMGC holds monthly meetings with communities and business forum groups such as Smokey Valley Business Group, Tonopah Coalition, and Austin Chamber of Commerce. RMGC also conducts annual Town Hall Meetings open to any members of the community. These meetings include question and answer (Q&A) sessions with RMGC representatives that provide opportunities to discuss the mine's activities including any concerns about environmental and cyanide management. As part of corporate requirements, RMGC conducted a Community Perception Survey, the results of which were also discussed in the Town Hall meetings. The Corporate Responsibility Specialist and mine General Manager regularly attend twice monthly Round Mountain Town Board meetings during which the general public voice any comments.

Much of the RMGC workforce is drawn from nearby and regional communities and through an open-door policy of communication within the workplace, allows employees to raise concerns on behalf of internal and external community stakeholders.

RMGC continues to host frequent mine tours for visitors and educational institutions and during which the operation's environmental management is discussed and during which any issues or concerns may be raised. In 2019, RMGC hosted 40 mine tours.

The SRP sets details procedures for receiving complaints and grievances. Kinross contact information is available on the corporate website and mine contact numbers are provided in an information brochure available for distribution to the public and provided to visitors. The brochure also contains mine operation, cyanide use and safety information. Any complaints received by telephone, verbally, by letter, email or other means are recorded onto a complaints form and a complaints report is completed. The matter is investigated and actioned as required. A review of records from 2016 through to 2019 recorded three complaints none of which related to the management of cyanide.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 9.2.

Summarize the basis for this Finding/Deficiencies Identified:

RMGC is engaged with communities and external stakeholder through periodic meetings and interactions, during which information about cyanide management can be provided. Visitors to the mine are provided with brochures which include information on first aid and cyanide management at the operation. The brochures are also readily available for members of the public if requested. RMGC continues to publish a fortnightly Valley View newsletter distributed to the community that contains information about mining activities and may also periodically include information related to safety and cyanide management. RMGC responds to any complaints or grievance raised and upon consideration provide the relevant level of information to requests as these arise including on cyanide management. On a case by case basis, RMGC will engage with media to respond to requests for information regarding cyanide management. Kinross continues to publish annual corporate responsibility reports on the company website. The Corporate Responsibility Supplement report contains information on cyanide use and environmental and safety performance metrics and is readily available to the public.

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

The operation is:

- ■ in full compliance
- in substantial compliance
- not in compliance…with Standard of Practice 9.3.

Summarize the basis for this Finding/Deficiencies Identified:

Brochures have been developed for visitors to the mine that include information on cyanide management, safety, security and emergency procedures. Visitors are accompanied by tour guides who are trained by the Safety Supervisor to tour key mine areas. The Valley View

newsletters also periodically include information related to safety and cyanide management. In responding to media or other enquires RMGC will develop and provide releases and written materials as appropriate to the nature of the enquiry including for cyanide management.

Illiteracy is not a common issue in surrounding communities and the local population. Nevertheless, community meetings provide opportunities to discuss and disseminate information verbally. Furthermore, members of the public can contact the Corporate Responsibility Specialist to telephonically raise concerns or discuss matters related to cyanide

Since the 2016 audit there have been no cyanide releases resulting in hospitalization or a fatality. If an incident was to occur, the procedures detailed in the EMP would apply and communication protocols described in the KCMP would be triggered. The designated External Relations Advisor and Spokesperson are required to develop communication strategies and communicate with external stakeholders and the public. MSHA would also be immediately notified as per regulatory requirements.

Since 2016 there have been no cyanide releases off the mine site requiring response or remediation, resulting in significant adverse effects to health or the environment or that exceeded applicable cyanide limits. However there have been two been two significant onsite spills reported, in July 2017 involving approximately 1,100 gallons of approximately 0.15 lb/t cyanide process water released onto an access road from an out of containment discharge line; and in May 2019 following a 4-inch valve failure at one of the barren lines resulting in 4,150 gallons of 0.36 lbs/ton solution going off containment. These spills and immediate remedial actions were recorded on NDEP Form 0390 and included in the WPCP quarterly and annual reports. There were no reportable spills pursuant to 40 CFR Part 302.4.