

SUMMARY AUDIT REPORT

for the September 2022
International Cyanide Management Code Certification Audit



Prepared for:

Agnico Eagle Mines Limited
Meliadine Mine

Submitted to:

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

Final

27 March 2023



Lambert
Environmental

1040 Chamberlain Drive
North Vancouver, British Columbia, V7K 1N9, Canada

SUMMARY AUDIT REPORT

Name of Mine: Meliadine Mine

Name of Mine Owner: Agnico Eagle Mines Limited

Name of Mine Operator: Agnico Eagle Mines Limited

Name of Responsible Manager: Mr. Jean-Claude Blais, General Manager

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Location detail and description of operation:

Agnico Eagle Mines Limited (AEM) operates the Meliadine Gold Mine located in a remote region of the Canadian Arctic, approximately 25 kilometres (km) northwest of Rankin Inlet and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut (Figure 1). The depth of permafrost in the area is estimated to be in the order of 360 to 495 m with the active layer ranging from about 1 m in areas with shallow overburden, and up to 3 m adjacent to the lakes. The spring ice melt (freshet) typically begins in mid-June and freeze-up returns in October.

The Meliadine Gold Mine is both an open pit and underground mining operation. A process plant on-site employs a conventional gold circuit comprising crushing, grinding, gravity separation and cyanide leaching with a carbon-in-leach circuit, followed by cyanide destruction and filtration of the tailings prior to dry stacking. In 2021, milling rates averaged approximately 4,700 tonnes per day.

From the grinding circuit the grinding thickener underflow is sent to a pre-aeration tank into which process air is sparged to achieve sulphide oxidation, and lime is added for pH adjustment. The pre-aeration tank is followed by four agitation carbon-in-leach (CIL) tanks in series. Leaching is performed using sodium cyanide, and pH is controlled with lime addition. A pressurized Zadra desorption system is used to recover gold from the carbon. The overflow from the stripping vessel consists of pregnant strip solution which is pumped to electrowinning cells. The stripped carbon is rinsed and transferred to the reactivation kiln. The tails from the CIL circuit are fed to a SO₂/Air process cyanide destruction plant that consists of two tanks in series. The tails from the cyanide destruction plant flow by gravity to a pump box from where they are pumped to a filtration plant that consists of three recessed plate filter presses (two in

operation, one standby). The filters reduce the moisture content of the filter cake below 18% to allow optimum compaction as dry tails. The filter cake is then transferred by a belt feeder to a storage building (Church) from where it is loaded onto load trucks and transported to a dry stacked tailings facility or to the paste backfill plant, as required. The process plant also has an intense leach reactor circuit, but this was not going to be in service over the foreseeable future.

Cyanide used in the gold extraction process is purchased as solid cyanide briquettes packed in IBC boxes and transported in sealed shipping containers; 20 boxes per container. The cyanide shipping containers are trucked from the production plant to the Port of Bécancour, Quebec, then shipped to Rankin Inlet, from where it is trucked by AEM to the mine site along a 30 km All Weather Access Road (AWAR).

Figure 1: Location of Meliadine Mine, Nunavut



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Auditors' Finding

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

with the *International Cyanide Management Code*.

Audit Company: **Lambert Environmental**
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Names and Signatures of Other Auditors

Technical Auditor: John Lambert, EP(CEA)
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Date(s) of Audit: 6 September through 12 September 2022

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Certification 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 Certification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the certification audit. I further attest that the certification audit was conducted in a professional manner in accordance with the *International Cyanide Management Code Mining Operations Verification Protocol* and using standard and accepted practices for health, safety and environmental audits.

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

Standard of Practice

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

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

Summarize the basis for this Finding/Deficiencies Identified:

AEM has had a contract with the Chemours Canada Company FC LLC. (Chemours) since 2014 for the purchase of cyanide for use in Canada. The Fourth Amendment to the contract is valid to 31 December 2024. On 1 December 2021, Draslovka Holdings a.s. (Draslovka) announced that it had finalized a sale agreement with the Chemours Company to acquire the Chemours Mining Solutions business. The Chemours supply contract with AEM has therefore transferred to Draslovka with all the terms and conditions in the original contract remaining in place. Draslovka manufactures cyanide at its production plant located in Memphis, Tennessee. Based on information posted on the International Cyanide Management Institute (ICMI) website, this plant was last recertified to the Code on 21 January 2020.

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

Standards of Practice

2.1 Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.

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

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The Supply Contract with Draslovka states that the cyanide is to be delivered DAP (Delivered at Place) to the Port of Bécancour, Quebec, that the title and risk of loss of the cyanide transfers to the buyer upon delivery at the port, and that the seller is responsible for all aspects of transport including handling and storage at the port and must comply with the Cyanide Code and all certification requirements applicable to transportation to the Buyer's Site. AEM takes possession of the cyanide when it is unloaded at the Port of Bécancour and continues to manage the handling and transport of the cyanide from the Port to the Itivia Beach through its International Cyanide Management Code (ICMC) signatory Meadowbank Supply Chain.

Transport shipping documents identify all transporters and supply chains responsible transporting cyanide from the producer to the operation. This confirms that cyanide originated from Chemours, Memphis Plant, and was transported via the Port of Savanna, Georgia, by Mediterranean Shipping Co. (MSC) to the Port of Montreal, Quebec, and trucked from there to the Port of Becancour by Group Robert. The routes, ports, and transporters identified in shipping documentation concurs with those identified in the following certified supply chain routes:

- *Summary Audit Report: Draslovka A.S. – Global Ocean Supply Chain, dated June 2021, and*
- *Chemours Canada Cyanide Supply Chain Transportation Recertification Audit, dated 30 September 2019, and posted to the International Cyanide Management Institute (ICMI) website on 21 January 2020. The transport is undertaken by Groupe Robert, a trucking company that has been contracted by Chemours since 2015.*

From the Port of Becancour the shipping containers (sea cans) are transported to Itivia Beach by Nunavut Sealink & Supply Inc. /Desgagnés Transarctik Inc. (Desgagnés). The stevedoring (Terminaux Portuaires du Quebec (TPQ)), and marine shipping, barging, and unloading at Itivia Beach concurs with the companies specified within the following certified supply chain:

- *ICMC transportation Certification Summary Audit Report, Agnico Eagle Mines Limited, Meadowbank Division, by ERM Canada Ltd., dated 21 March 2022, for recertification posted 29 July 2022.*

The remaining portion of the supply chain involves loading containers onto trailers at Itivia Beach and trucking them to the Meliadine mine along an approximately 30 km All Weather Access Road. This section of the supply chain is the responsibility of the Meliadine Mine and and is presented in:

- *Summary Audit Report for September 2022 ICMC Certification Audit, Agnico Eagle Mines Limited Meliadine Mine, by Lambert Environmental, dated 22 December 2022.*

This report was prepared for Agnico Eagle's Meliadine Transport Operation, that was certified to the Code on 27 January 2023.

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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:

Cyanide is only delivered in solid briquette form. It is stored in shipping containers (sea cans) in a dedicated storage area located in a remote part of the site, approximately 1 km northwest of the main populated area of mine. The nearest surface water body is approximately 350 m north of the storage area and the potential for impacting the lake is considered low as the storage area is a raised gravel pad bounded by an approximately 1 m high berm. The pad is designed to prevent the formation of standing water and therefore reduce the potential for solid cyanide contacting water in the event of a solid cyanide spill during unloading or handling sea cans. The storage area is underlain by permafrost that would inhibit the potential for migration of potentially impacted water.

The cyanide mixing/storage facility is a vertical structure located across three floors, with the hopper on the upper floor, mixing tank on the second floor, and distribution tank on the ground floor. The mixing/storage facility was designed by professional engineers of the WSP Group Canada, and construction and engineering quality assurance/ quality control (QA/QC) was managed and signed off by professional engineers within the AEM Construction Group.

To prevent overfilling the cyanide mix procedure requires that the tank level be checked prior to a mix. The mix and distribution tanks are also equipped with high-level alarms that report to a console at the mix plant and to the control room. The operator is also in radio contact with the control room during a mix. The high-level alarms are on a monthly preventative maintenance schedule.

The cyanide mix and distribution tanks are located within dedicated containments in the process plant. The mixing and distribution tank containment basins are interconnected and the distribution tank containment volume can retain 141% of the largest tank capacity. The cyanide distribution tank sits on a concrete plinth constructed over the competent concrete floor of the process plant. The concrete containment basin and joint seals were observed to

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be in good condition. The distribution tank basin is equipped with a sump fitted with an automatic pump that returns any cyanide spillage back to the cyanide tank.

Cyanide briquettes are stored in sealed sea cans in their original packaging in IBC boxes within a polypropylene bag lined with polyethylene to provide protection from moisture. Procedure requires the sea can be ventilated when the doors are opened and checked for hydrogen cyanide (HCN) gas using a portable meter prior to unloading the boxes.

The mine site is in a remote area and only accessible via the AWAR. Unauthorized access by the public is prohibited and access is monitored by security. The cyanide storage area is gated, and signs are posted to restrict access. Admission to the storage area is restricted to warehouse personnel. The sea cans are stored door-to-door in the area to prevent unauthorized entry to the containers. Entrance to the process plant is restricted to workers that have received mill induction and cyanide awareness training unless accompanied by a trained person. A tag-in-tag-out system is in place to know who is in the plant. The cyanide storage area is dedicated to cyanide storage and is located well away from other chemicals. Sea cans moved to the mill are placed in a dedicated location next to other sea cans. Procedures are in place to ensure that sea cans placed near the cyanide container do not house incompatible materials.

Inside the process plant cyanide is stored in the reagent area on dedicated racks away from incompatible materials. The cyanide mix and distribution tanks are in separate containment basins and located away from incompatible materials. The cyanide mixing and distribution tanks are connected to an exhaust fan that discharges outside the process plant to the atmosphere. Operating procedures require the fan to be switched on prior to starting a mix and an alarm activates if the exhaust flow is deficient. In addition to fixed HCN monitors located at the distribution tank, the mixing tank and the cyanide dispensing hopper, operators are also required to use portable HCN monitors when in the area to check for potential HCN gas.

During the audit several cyanide boxes were observed on the floor of the reagent area; not stored on dedicated racks provided. The lower shelf of the rack was missing so boxes were also stored on the floor beneath the rack. Workers were seen using a water hose to wash down the floor near the boxes. Although each box was strapped to its own pallet and therefore raised just off the floor, there remained a risk of water contacting the boxes from the hose-down activity and a potential for reacting with cyanide. The auditors requested that the rack be repaired, and procedures changed to ensure that the cyanide was stored off the floor on the racks, as intended, and that a risk review work plan be completed before washdown activities are permitted near to where cyanide is stored. Subsequent to the field component of the audit the auditors were provided with evidence showing the repaired rack with cyanide properly stored, training records on the required use of "Work Cards" to complete a job risk assessment prior to undertaking a work task, and a revised Cyanide Mixing Procedure stating that boxes are not to be stored on the floor.

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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:

Procedures are in place to prevent cyanide contaminated sea cans or waste from being used. The cyanide mixing procedure requires that once all the cyanide boxes have been removed from the sea can, the interior of the sea can is inspected to ensure it is clean. It also requires empty cyanide bag are rinsed properly using the freshwater hose provided. The bag, box, packaging, and other waste are then transferred to the dumpster outside the process plant prior to being transported to the burn pit. When full the dumpster is transported to a burn pit remotely located on a waste rock storage facility and the waste burned as per a documented burn procedure.

The operation has procedures in place to prevent exposures and releases during cyanide unloading and mixing activities. These procedures provide detailed instruction on transporting cyanide between the cyanide storage compound and the process plant without rupturing or puncturing, storage of boxes in the reagent area, mixing cyanide (including appropriate personal protective equipment (PPE), using an observer, pre-mix inspections, barricading the area to prevent unauthorized access, use of colourant dye, rinsing and disposal of cyanide waste packaging, and washing down the area after a mix and response actions in the event of a cyanide exposure or spillage.

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.

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The cyanide facilities at the Meliadine operation include the solid cyanide container storage area, reagent cyanide mixing/storage circuit, intensive cyanide reactor circuit (ICR) (out of service with no plan to operate in the near future), carbon-in-leach (CIL) circuit (4 leach tanks), solution strip circuit and carbon reactivation kiln, cyanide destruction circuit (2 tanks), tailings filter presses (3), and associated pumps, piping, and secondary containments. The results of analysed samples representative of porewater in the dry tails going to the tailings storage facility and paste plant, and process water returning to the process show Weak Acid Dissociable (WAD) cyanide concentrations consistently well below 0.05 mg/l. The following facilities are therefore not currently considered cyanide facilities as defined by the ICMC: clarifier feed, water, and process water tanks, grind circuit, pre-aeration tank, dry tailings stockpile (Church Building), dry tailings storage facility (TSF), and the paste plant.

The Meliadine Mine operates within AEM's internal Risk Management and Monitoring System (RMMS) that is consistent with International Standards Organization (ISO) 14001 Environmental Management System and Occupational Health and Safety Assessment Series (OHSAS) 18001 health and Safety (H&S) Management System and other international mining standards. Within this management system structure AEM has implemented written management and operating plans and procedures for the safe operation and management of the cyanide facilities including procedures for unloading, mixing and storage of cyanide; leach plant, cyanide detoxification, carbon stripping and regeneration operations; and cyanide waste disposal. In addition, AEM as implemented plans and procedures for environmental monitoring, emergency response, and management of change (MOC).

The design and operation of the mine is regulated under the terms and conditions of the *Nunavut Water Board (NWB) Type A Water Licence – No. 2AM-MEL1631, issued by the NWB on May 13, 2021, and approved by the Minister of Northern Affairs on June 23, 2021 (the Licence)*. This Licence sets out requirements for construction and operation of mine site facilities, including the TSF, water and waste management, and discharge quality to the environment. The Licence has requirements for implementation of operating plans, periodic recalibration of the water balance, provision of financial security and schedules for various required site monitoring and regulatory reporting. Control plans are in place to provide operating criteria for the safe and efficient operation of the process circuits. The plans provide criteria for airflow and oxygen concentrations in the pre-aeration tank, pH and cyanide concentration limits through the leach circuit, and pH management and reagent addition in the cyanide destruct plant to reduce concentrations to less than 15 mg/l WAD cyanide in tails going to the filter press to effectively reduce WAD cyanide concentrations below 0.5 mg/l in tails being transported to the TSF or paste plant.

The operating plans and procedures describe the practices necessary for the safe and environmentally sound operation of the facility. They define the scope of the task, hazards, required PPE and tools, training requirements, and detailed instruction to perform the task. Operations personnel conduct routine inspections of holding tanks, containments, piping, pumps, valves, flanges, piping supports and other equipment for signs of leaks, salt build-up, and corrosion, as well as adequacy and condition of signage. These shift inspections are

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supplemented by work area inspections and job risk analysis that each worker undertakes as part the "Work Card" program, prior to performing a task. Work Orders (WOs) are generated for deficiencies identified that cannot be addressed immediately by the operator. These corrective WOs are tracked to closure through daily meetings attended by maintenance planners and process managers. Facility visits are also conducted through monthly manager field visits (Boots on the Field) that provide managers with a better understanding of field conditions and allow interaction with employees to identify and discuss issues.

In 2022, AEM formalized their MOC process within the RMMS to evaluate the potential impacts of a proposed change and identify the stakeholders that should be informed or involved prior to implementing that change. The MOC objectives and process are set out in a guidance document that defines triggers for initiating the MOC process. For the Process Plant such triggers include a change to the lockout procedure; change related to the Cyanide Code; addition of new equipment; change requiring engineering approval; overhaul to the human machine interface or additional expert systems; change to oxygen and sodium metabisulphite system, copper sulphate use, or cyanide process; or change in a process that requires a shutdown. The MOC process is also required if more than one department is involved, or if a change involves H&S, Environment or Community Relations. Although there was a requirement for review of proposed changes by the various department stakeholders, there was not requirement for sign-off by H&S and Environment. After the field component of the audit AEM provided an updated MOC guidance document that requires H&S and Environmental to review and approve all changes involving cyanide. AEM also provided confirmation that appropriate staff were updated in the revised requirements.

Control plans are in place that provide operating criteria for the safe and efficient operation of the process circuits. The plans describe the consequences of a process going out of control and the actions required to correct the situation. There are also plans in place that detail actions to be undertaken to prepare for short-term (less than 1-year) and long-term temporary closure (greater than 1-year) of operating facilities to ensure ongoing protection of the environment and regulatory compliance during the shutdown.

The operation inspects critical equipment in the unloading, storage, mixing and process areas during shift operational inspections, monthly inspections of cyanide lines, and as part of routine preventative maintenance (PM) of pumps, extraction fans and associated equipment to ensure and document that they are functioning within design parameters. Although ponds and impoundments do not perform a significant role in cyanide management during normal operations, these are maintained and inspected to ensure available freeboard, integrity of surface water diversions and maintenance of the water balance. Daily inspections are also undertaken of the TSF to monitor tailings placement, compaction, dust potential, integrity of monitoring instrumentation, and signs of side-slope erosion from surface run-off. The Engineer of Record also conducts an annual inspection of the TSF and other geotechnical structures, including channels and berms.

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During the audit, housekeeping was observed to be good, no corrosion, leaks or salt build-up was evident, lockouts were in place on critical valves, labelling was generally good, and containment areas were free of equipment, debris and slurry that could compromise containment capacity. Nevertheless, two exceptions were observed. These were a corroded section of reagent line, and an unlabelled barren solution tank. These are discussed further in sections 4.7 and 6.2, respectively. Based on these observations and further evaluation of the corroded section of reagent line, it is the auditors' opinion that the inspection and maintenance programs are conducted at a frequency sufficient to assure and document that cyanide facilities are functioning within design parameters.

Shift inspections are recorded in the daily e-Reports for each process area which are reviewed and electronically signed by the shift supervisor. WOs are generated for items that cannot be addressed immediately by the operator. These inspections are supplemented by work area inspections that each worker undertakes as part AEM's "Work Card" program, whereby "Work Cards" are completed by the worker and reviewed and signed by his supervisor prior to beginning a task and again during task execution. Completed *Work Cards* are forwarded to the H&S department for review and trend analysis. The daily inspections are conducted of the TSF, are summarized on weekly geotechnical inspection reports. The annual geotechnical inspection of the TSF and other geotechnical structures is documented in a report.

AEM has implemented a well-managed PM program for critical equipment including major machinery, tanks, pumps, valves, sensors, and other equipment involved in the management of cyanide. JD Edwards (JDE) software is used for scheduling, creating, and tracking WOs; parts stocking and ordering, and tracking the status of purchase orders. The JDE system generates maintenance actions based on a predetermined PM schedule, or upon generation of corrective action WOs in daily response to specific inspection observations or observed operational needs. The schedule is based on manufacturers recommendations and/or site experience and, depending on the equipment and its active use, the PM is scheduled on a time-based frequency or equipment running hours. The JDE system was examined during the site visit and the maintenance history of selected equipment was reviewed to test completion of PMs over the last year. The review found that all PMs had been completed as scheduled.

Because of the remote Arctic location, the Meliadine mining operation is not connected to the national grid and must therefore generate its own power. Meliadine has its own power plant that houses five 5.6 Megawatt (MW) Wartsila V12 engines. In addition, there is an emergency Caterpillar 3516 1.8 MW engine to provide backup for the camp and another at the mine portal for backup, if needed. The power plant normally runs with one engine under maintenance and two engines as backup but during periods of heavy winter load may need to run four engines. The plant has full time AEM mechanics and a Wartsila contractor onsite. To minimize the potential for power outage the plant operates using a load shedding program. Since 2020 there have been 17 power outages, but recovery has generally occurred within 5 minutes. The facility operation has no tailings pipeline or process ponds and therefore requires little reliance on power to prevent unintentional releases and exposures. The

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operation has been designed such that all critical equipment for the safe management of cyanide is located within the concrete containment of the process plant.

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:

The use and addition of cyanide is carefully monitored in the leach circuit. Cyanide addition in CIL Tank 1 is controlled to achieve a maximum cyanide concentration in CIL Tank 4 of 110 mg/l. With the current ore being processed, these operating parameters have been found to achieve maximum gold recovery with minimum cyanide being sent to the destruction circuit. The ore characteristics and behaviour of the leach process are carefully monitored and adjusted as needed to minimize cyanide use. Cyanide concentrations in CIL Tanks 1, 3 and 4 provide continuous readings in the control room to allow operators to adjust cyanide addition as needed. Cyanide addition is currently completed manually but AEM is looking at changing to automatic addition to optimize cyanide use further. AEM recently modified the cyanide addition point to the CIL circuit to allow reduction of pH in the in the pre-aeration tank. We understand that this realized a 5% to 10% reduction in cyanide use between April 2020 and 2021.

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:

The operation has a comprehensive, probabilistic GoldSim water balance model that was developed to assist in the evaluation of the water management infrastructure and estimation of the pumping requirements over the life of mine and under closure conditions. The model is focused specifically on contact water management infrastructure and areas that are affected by mining activities. As discussed in 4.1 the filtered tailings currently generated and disposed at the dry tailing facility and being used in paste production for underground backfill have WAD cyanide concentrations less than 0.5 mg/l. The dry tailings storage facility and associated drainage ponds are therefore not considered cyanide facilities as defined by the Cyanide Code and therefore water balance is not critical to the safe management of cyanide.

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The TSF is a dry-stack operation, and the operation does not have any process ponds. The model does not account for the rate that solution is applied, as the tailings are placed with a moisture content of 15% to 18% to allow optimum compaction and the moisture freezes in the pores after placement and compaction so there is little opportunity for release and seepage. The collection ponds are designed to retain a run-off from a 1:100-year, 24-hour storm without discharge to the environment. The return storm was evaluated using climate records from 1981, available from Rankin Inlet Airport and the data is updated using information collected from an onsite weather station established in 2020. The model includes the catchment area of each collection pond and accounts for effects of freezing, thawing and evaporation on the accumulation of precipitation. Solution losses to seepage are not considered in the model as they are negligible due to permafrost conditions, a shallow active layer and short open-water season.

The model is used to manage the levels of water in the collection ponds to ensure sufficient freeboard is available to prevent unauthorized discharge to the environment. The model includes maximum allowable pond levels for various conditions. The effluent water treatment plant (EWTP) has been designed with sufficient capacity to manage the surface contact water from the entire site for a 1:100 wet year spring freshet, or a 1:2 mean year spring freshet in combination with a 1:1,000 return 24-hour extreme rainfall. The model also considers water quality and allows prediction of water quality trends.

The process plant operation is conducted to minimize the presence of residual cyanide in the tailings. The results of weekly analysis of solution collected from the clarifier feed distribution box, which is representative of the porewater quality of the filtered tailings, shows that WAD cyanide concentrations in the tailings are less than 0.5 mg/l, indicating that the TSF is not a cyanide facility as defined in the ICMC. Nevertheless, inspection and monitoring activities, including daily inspections of the TSF and collection ponds, and recording pond elevations for input into the water balance model, are undertaken to ensure integrity of the TSF and to maintain the water balance to prevent overtopping of ponds and unplanned discharges to the environment.

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:

There are no open solution ponds or water bodies where WAD cyanide exceeds 50 mg/l and the TSF is a dry tailings facility. The only surface water bodies that have a potential to be impacted by cyanide are Pond CP-3, which collects seepage and run-off from the TSF, and Pond CP-1, which collects run-off contact water from the mine infrastructure areas that



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includes the process plant and run-off from the TSF. The results of free, WAD and total cyanide analysis on samples collected monthly from these ponds, show cyanide concentrations of all parameters to be below 0.05 mg/l, i.e., WAD cyanide is well below 50 mg/l.

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:

There are no indirect discharges to surface water. The cyanide in the process plant and cyanide storage yard is contained, and the only potential for indirect discharge from the operation is from the TSF, and any seepage from this facility is captured by the site's water management infrastructures (Channel 3, CP-3, and CP-1). The TSF is underlain by permafrost and monitoring results of thermistors in the tailings show good freeze-back of placed tailings beneath the active layer and the TSF foundation layer is well below freezing. Seepage would therefore be minimal and be captured by Ponds CP-3 and CP-1. These ponds are underlain by permafrost so potential seepage to surface water would be minimal. Water collected in CP3 and other surface contact water collection ponds for waste rock storage facilities etc., is pumped to CP1 from where it is treated by the EWTP before discharge into Meliadine Lake. The design capacity of the EWTP is sufficient to ensure that CP1 can manage the surface contact water from the entire site for a 1:100 wet year spring freshet, or a 1:2 mean year spring freshet in combination with a 1:1,000 return 24-hour extreme rainfall. Results of analysis of monthly sampling from Pond CP1 and weekly sampling of treated effluent discharge from the EWTP show total cyanide and free cyanide concentrations consistently below 0.5 mg/l and 0.022 mg/l, respectively.

There have been no indirect discharges from the operation that have caused cyanide concentrations in surface water to rise above levels protective of a designated beneficial use for aquatic life.

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:

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The Mine is in an area of continuous permafrost. The depth of the active layer ranges from about 1 m in areas with shallow overburden, up to 3 m adjacent to the lakes. The depth of permafrost is estimated to be in the order of 360 m to 495 m. Shallow groundwater flow or seepage is limited to late spring to early autumn and flow would then be toward local depressions and ponds that drain to larger water bodies. AEM therefore manages seepage by directing flow using a series of berms, dikes, containment ponds, channels, and sumps to Pond CP-1 prior to treatment in the EWTP before discharge. In addition to treatment of Pond CP-1 water prior to discharge, AEM has implemented an Aquatic Effects Monitoring Program, as a requirement of the Water Licence that includes a toxicity testing program to monitor for potential effects on aquatic life.

Because of the harsh climate and shallow melt layer that is only active for a few months a year, groundwater monitoring wells are not practical or useful so are not installed on site. Groundwater is therefore also not available for beneficial use. As discussed in 4.5 total cyanide and free cyanide concentrations in CP-3 and CP-1 are below 0.5 mg/l and 0.022 mg/l, respectively, and therefore below the numerical standard established for total cyanide by the NWB Water Licence, and applicable federal regulation. The operation has not caused cyanide concentrations of ground water to rise above levels protective of beneficial use.

In addition to stacking the dry tailings on the TSF, tailings are trucked to the paste plant to be mixed with cement to produce paste for underground backfill. A study by AEM on the potential impacts of using tailings for underground backfill found that by maintaining WAD cyanide below 15 mg/l in the detox tanks, reduced the free cyanide, which is capable of reaction, to almost zero. A tailings sampling program was established to ensure that this operational condition was maintained. The tailings are sampled every two weeks and the results show cyanide to be <10 ug/g WAD and <0.05 ug/g free cyanide in the solid tailings and, except for four minor excursions over the past 2 years, WAD cyanide has consistently remained below 0.5 mg/l WAD cyanide in the liquid component that makes up only 15% to 18% of the filter pressed tailings. Any residual reactive cyanide remaining in the tailings would be neutralized by the addition of cement at the paste plant. AEM concluded that with the program in place there was no risk worker health and ground water.

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:

All cyanide mixing, storage, and process tanks are located within concrete containment areas within, or drain into, the process plant basement area. The primary cyanide circuits are located within their own dedicated containments. Each dedicated containment has a capacity

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that exceeds 110% of the largest tank within the containment. All cyanide process and reagent tanks are constructed on concrete pad foundations that provide competent secondary containment.

The floors of the plant generally drain via pipes to sumps located at the floors below. These containment areas are fitted with dedicated automatic sumps to convey any spills back to the process. Other tanks in the plant are not provided with their own containment but are within the plant basement main catchment area. These other tanks are cyanide free or may hold process water containing low concentrations of cyanide. The grinding thickener tank (that also holds process water), located immediately outside of the west side of the plant, sits above its own concrete containment that drains to the plant basement containment area. Shift and monthly PM inspections are undertaken that include inspection of containments for cracks, fractures or flaking.

All cyanide process lines are located within the process plant and leakage would be directed to sumps located in the designated containments, or to the main basement area containment for return to the process. There are no buried cyanide lines. The cyanide reagent lines are carefully aligned to avoid passing over walkways or work areas to avoid potential contact by operators in the event of a leak. Cyanide lines are included in shift and monthly plant inspections to check for deterioration and leakage, including salt-buildup, abnormal corrosion or flaking paint, integrity of pipeline supports, clear labelling and flow direction.

In March 2022 a contractor was retained to inspect and conduct non-destructive testing (NDT) thickness measurements of all accessible piping of the reagent cyanide line. Sections of the line were found to be heavily corroded although no internal corrosion was identified, and the line was deemed safe for continued use. Nevertheless, based on the results of the inspection and testing program AEM decided to replace the line and is currently doing so with work scheduled for completion in March 2023. During the audit a section of the reagent line in the vicinity of CIL-1 and Water Surge Tank visually appeared to be in poor condition with corroded flange and valve susceptible to leakage. AEM was requested to conduct appropriate inspection and maintenance of this section of the line to confirm the reliability and continued safe operation of the line, valve, and flange. A licenced contractor was assigned to assess the condition of this section of line. The line was cleaned, visually inspected and NDT testing was conducted to measure wall thickness. Based on the inspection, the licenced contractor concluded that this section of the line was safe for continued operation.

All cyanide mixing, storage, and solution tanks are constructed from carbon steel. Cyanide solution pipelines and piping system components are generally constructed of carbon steel with exception of a few high-density polyethylene (HDPE) and chlorinated polyvinyl chloride (CPVC) associated with the carbon transfer lines at the CIL and carbon strip areas. These materials are compatible with cyanide and high pH conditions.

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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:

The Meliadine Gold Mine Project was executed under the construction management and supervision of the AEM Construction Group (ACG). ACG developed the process design criteria for the plant and assigned WSP Canada to undertake the detailed engineering design of the process plant. ACG assigned various contracting companies to complete the civil, mechanical, and electrical works, and plant commissioning was completed by AEM Operations. ACG oversaw the QA/QC during construction and retained various engineering contractors for conducting the QA/QC of mechanical, piping, electrical, instrumentation works and civil works. Where tanks or other items were being fabricated off-site, representatives from ACG performed periodic QA/QC inspections at the fabrication shops. ACG inspected areas or sub-systems of the process plant as they were completed and issued Completion Certificates signed by the Construction Management Team that these were ready for commissioning in accordance with the ACG Project rules. On completion of the process plant, all documentation including vendor and engineering documents and as-built engineering drawings were handed over to AEM Operations and are accessible on the Meliadine database.

QA/QC verification of the Process Plant was undertaken during construction and installation of equipment and components, to ensure work was carried out in accordance with engineering specifications, drawings, applicable codes and regulations and materials used meet the design specifications. The field inspections sheets are signed by the contractor and AEM construction inspector that they meet the plans and specifications. Red-line drawings are retained on file where modifications had to be made to the original "issued for construction" detailed design drawings.

Conditions applying to construction of water management structures are regulated under Part D of the Water Licence. On completion of construction, the Licence requires AEM to submit a Construction Summary Report prepared by a qualified Engineer that includes as-built plans and drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions. The ponds, berms, channels and the TSF were designed by Tetra-Tech; and construction management was undertaken by AEM. A Construction Summary Report was issued in 2019 for construction of the berms, channels, and ponds. The report includes the design rationale, requirements, criteria, parameters, standards analysis, methods, assumptions, and limitations, as well as construction methods, QA/QC measures and equipment used.

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The TSF is ongoing construction. The design and issued for construction drawings are presented in a TSF Design Report. Construction Summaries are presented in Monthly Performance Reports that detail visual inspections with photographs, ground temperature reading summaries, as-built tonnage placed, and moisture content and grain size variation.

All documentation including vendor and engineering documents and as-built engineering drawings for the Process Plant were provided to AEM Operations at handover of the project. AEM indicated that all final engineering design drawings and manuals, and associated QA/QC records for the Process Plant are stored on a dedicated area of AEM's SharePoint system database.

The Meliadine Project engineering was headed by an ACG Engineering and Commissioning Manager assigned to the project. He is a Professional Engineer and currently Director, Construction Projects for AEM. He was supported by a group of discipline leads (engineers and technicians) who worked directly with different engineering consulting companies to develop the detailed engineering of the project. The construction phase of the project was headed by ACG's Construction Manager. He has been in the mining industry for 30 years (20 years with AEM), and has executed construction projects in Canada, Mexico, and Finland. He is currently Project Manager for the Nunavut region, responsible for all the Construction activities for AEM's Meadowbank, Amaruq and Hope Bay mine sites. He was supported by a team of discipline general supervisors, engineers, scheduler, accounting, and administrative resources, to manage and supervise contracting companies retained for construction and QA/QC. As construction of the various sub-systems or areas were completed, ACG managers and discipline leads conducted inspections, and prepared and tracked non-conformance reports. When satisfied those non-conformances had been addressed, signed Completion Certificates were issued that the facility was ready for commissioning. Commissioning activities were undertaken between members of the Construction team and Plant operations, headed by the Commissioning Manager.

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 a requirement of the Water Licence AEM was required to prepare several environmental management plans including a water management plan, aquatic effects and monitoring plan, QA/QC plan and wildlife protection and response plan. The environmental monitoring program implemented through these plans includes, regulated discharge monitoring, non- regulated verification monitoring for operational and management purposes, and general aquatic monitoring as subject to approval by the NWB or Nunavut Impact Review Board (NIRB). AEM

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Environmental Department uses a Sampling Calendar to schedule water sampling and analysis as required by the Water Licence or internal verification programs, and records if, when, and by whom the sampling was completed. The calendar details the sampling frequency, scheduled date, type of sample and proposed analysis, selected analytical laboratory, sample holding time and department responsible for sampling.

Development of the environmental monitoring and sampling programs was an iterative process between AEM and the government and drafted by various consulting companies. The water management plans and procedures are reviewed and updated on an annual basis as required under the Water Licence. Modifications to environmental plans and procedures are made by qualified AEM employees and approved and signed by the Superintendent or General Supervisor, managers with significant environmental monitoring and management experience. Compliance monitoring samples for surface water (including free, WAD and total cyanide) are submitted to Bureau Veritas analytical laboratory, an accredited environmental laboratory in Nepean, Ontario.

AEM has implemented environmental procedures that specify sampling methods, sample preservation techniques, sample labelling and quality assurance/quality control, shipping instructions, and cyanide analysis methods to be used. Sampling locations, frequency of sampling, and parameters to be analysed are detailed in the Water Licence and the cyanide species to be analysed are also included on the Chain-of-Custody. AEM has a QA/QC plan for their sampling and analysis program that specified sample labelling requirements, sample preservation and handling and the use of duplicate samples and trip blanks. AEM utilizes a field sheet to record sampling events which includes entries for sample I.D. and location, date and time of sampling; field measurements (temperature, conductivity, dissolved oxygen, pH and turbidity); weather conditions, and other observations. The completed field sheets are maintained in hard copy and scanned and stored on computer.

The frequency of surface water monitoring is stipulated in the Water Licences. Wildlife monitoring program, which includes wildlife mortality reporting, is undertaken throughout the year; however, this program is not considered applicable to the Cyanide Code at this site because there are no open water bodies that contain cyanide above 0.5 mg/l.

Based on samples collected monthly from ponds CP1 and CP3, downgradient of the TSF and process plant, and weekly samples collected of discharge to the environment from the EWTP, the results that demonstrate total cyanide and free cyanide concentrations are consistently below 0.5 mg/l and 0.022 mg/l. It is therefore the auditors' opinion that the current monitoring frequency is adequate to characterize the medium being monitored and to identify changes in a timely manner.

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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 requirement of the Water Licence AEM has developed an Interim Closure and Reclamation Plan (ICRP) for Meliadine (latest iteration dated 2020) that covers all closure and restoration costs for the mine, including those for cyanide facilities. In August 2022, AEM prepared a Cyanide Management Decommissioning Plan (CMDO) to specifically address decommissioning and closure of cyanide facilities. This document will form an integral component and appendix of the next update of the ICRP. The CMDO provides a generic list of steps necessary to decommission equipment and areas that have contained cyanide during the operation of the Meliadine mine. These the steps include health and safety precautions, environmental considerations, cyanide stock reduction, disposal of unused stock, decontamination of piping and equipment, contaminated site remediation, waste disposal and post closure monitoring, if required. The CMDO provides procedures for rinsing and decontaminating tanks, piping, steel structures, pumps, concrete etc., treating the contaminated rinse water and disposing of cyanide contaminated waste.

The CMDO provides a conceptual schedule for implementing the decommissioning cyanide equipment and areas. The schedule covers a period of 18 months and includes pre-decommissioning actions and decommissioning actions. A Gantt Chart showing the Interim Conceptual Schedule is presented as an Appendix.

The decommissioning procedures for cyanide are reviewed and revised as prescribed by licence or regulation, when there is a material change to the reclamation liability or are modified internally as needed. The initial Plan was dated 2019 and the latest version of the Plan is dated 7 April 2021. AEM is required to submit a Final Closure and Remediation Plan at least 12 months prior to the expected mine closure, currently scheduled for 2027, with closure activities occurring between 2028 and 2030.

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

The operation is: ■ in full compliance



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in substantial compliance
not in compliance...with Standard of Practice 5.2.

Summarize the basis for this Finding/Deficiencies Identified:

Closure cost estimates for Meliadine are computed using the INAC RECLAIM reclamation Cost Estimating Model (v.7) as required by the Water Licence and were prepared by an engineering company retained by AEM. This cost estimating procedure assumes third party contractor rates, on the basis that AEM is unable to fulfil its closure and reclamation obligations, and the government is required to take over reclamation of the Meliadine Mine. The latest revision to closure and reclamation cost estimate was prepared in 2020 and updated in April 2021. This estimate was used to set the required security for the amended Water Licence. AEM reviews and updates the cost estimate at least every five years as required by regulation and more frequency as needed to incorporate changes in the operation.

Pursuant with the Nunavut Water and Nunavut Surface Rights Tribunal Act and Meliadine's amended Water Licence, AEM is required to furnish and maintain a security to cover the closure and reclamation obligations (50% held by Crown-Indigenous and Northern Affairs Canada (CIRNAC) under the Water Licence and 50% by the Kivalliq Inuit Association (KIA)). The Water Licence also stipulates that the Nunavut Water Board may conduct periodic reviews of security and associated amendments to the amount of security to be furnished and maintained under the Licence. The financial security is maintained through letters of credit issued by the Bank of Montreal and Bank of Nova Scotia.

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:

The management of health and safety performance at Meliadine is represented by the *Prevention Program* document. The *Prevention Program* builds on AEM's H&S Policy and adopts a risk-based strategy to manage cyanide and other hazards. In addition to the adopted *Risk Management Framework* where potential hazards are identified, assessed and controls implemented, AEM refers to the *Supervision Formula* to ensure effective means of communication between supervisors and operators to share and analyze job related information to improve the effectiveness of safety at the workplace.



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AEM has developed cyanide related procedures for the transport, mixing, plant operations, equipment decontamination, and maintenance. Other procedures and plans are also documented to support specific activities with a cyanide interface including, personal protective equipment program, and cyanide spill management.

During a cyanide batch mix observation, a reagent operator was observed as not clean shaved and omitted to remove rinse water accumulated near cyanide briquette dispensing hopper as required by procedure. These situations triggered safety moments and a request that reagent operators review and sign off on the mixing procedure during a formal subsequent debrief. Meliadine provided records of formal debrief conducted with reagent operator signature.

All process plant cyanide-related procedures reviewed follow a similar template which includes a section on required equipment that specifies the personal protective equipment to be used, tools and materials needed, as well as specific training required to perform the procedure. All tasks executed by operators involves a pre-work inspection process which is captured by the *Work Card* system implemented through the *Supervision Formula*.

H&S input by operators or maintenance crew is solicited through various means including the 1 to 3-year cycle review of procedures when operators join supervisors and managers in a review committee. Input from workers is also obtained during toolbox meetings scheduled each day prior to the start of the work shift. A third way of gaining workers input is through the *Work Card* process completed by both operators and supervisors.

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:

A full description of the process plant operating plans and procedures for Meliadine is provided in section 4.1. To address the potential HCN gas generation during mixing and production activities, AEM developed a Cyanide Management Plan (CMP) as well as the following documentation: CIL Control Plan; Sodium Cyanide Mixing procedure, and Cyanide Destruction Control Plan.

The CMP gives an overview of cyanide use in operations and requires pH to be maintained above 11 during cyanide mixing. Fixed HCN gas monitors are mounted at the mix tank and distribution tank and linked to a process plant alarm system and control room. The pH is monitored by a reagent operator at the mixing station and can be read on a display near the mix hopper. Furthermore, the CMP requires pH of 10.5 or more in the CIL circuit. The system

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is maintained at a high pH which is monitored and recorded with an automated sampler connected to an alarm system in the process plant control room. As indicated in 4.2, a pre-aeration tank is located prior to the CIL circuit that does not contain cyanide. This tank is maintained at pH greater than 7.5 while pH in the CIL tanks is targeted in the range of 10.5 to 10.9 with maximum at 11.5 and minimum at 9.9. The CMP confirms the addition of sodium hydroxide to prevent HCN gas generation in the carbon stripping circuit. As in previous production stages, pH is monitored and recorded with an automated sampler itself connected to an alarm system in the process plant control room. Finally, the CMP details the process for cyanide destruction. At this stage, the target value for pH is between 8 and 9 through the addition of lime.

AEM identified areas of the process plant where workers may be exposed to HCN gas. The potential exposure assessment is identified in the CMP. The identified areas include cyanide mixing, CIL, cyanide destruction, and carbon recovery. Each of the areas are equipped with one or more HCN gas detectors. In addition to eleven (11) Drager PointGuard 2100 toxic gas detectors equipped with HCN sensor, process plant operators and maintenance crew use portable HCN monitors when performing production or other activities. HCN gas sensor devices have a pre-alarm set at 2.5 ppm, a "high" alarm set at 4.7 ppm and a "high-high" alarm set at 10 ppm. The only exception is the fixed HCN detectors in the cyanide destruction exhaust fan #1 and #2 locations where the "high" alarm is set at 5 ppm and high-high alarm is set at 7 ppm. All portable HCN gas detectors have an alarm set at 4.7 ppm. In the case of a pre-alarm condition the control room operator will receive the alarm and investigate about the condition. The plant operators can continue their activities until further notice. If a "high" alarm condition is observed, a warning yellow flashing beacon strobe light and audible siren sounds as a local alarm. Only personnel in the area of the alarm will need to evacuate. If more than one area observes a 4.7 ppm HCN condition or a single area reaches a 10 ppm HCN concentration, a full evacuation of the plant is required. A warning red flashing beacon strobe light and audible alarm will be activated. All process plant doorways have a red strobe light will be active to prevent inadvertent access.

The portable HCN gas monitors are maintained in a dedicated storage cabinet next to the operator dressing room. The cabinet serves as a charging and calibration station. The Industrial Scientific docking station system is connected to the manufacturer's Web site through an Internet link. This ensures automatic detection of portable monitor malfunction. The calibration frequency of portable gas monitors is considered meeting manufacturer's recommendation. Fixed HCN gas monitoring detectors are inspected and calibrated monthly through the preventive maintenance system with WOs directed to the Team Electrical Surface and Instrumentation crew. Calibration records of fixed HCN monitors are maintained at the process plant. Monthly calibration frequency of fixed monitors meets the manufacturer's recommendation.

As indicated previously, solid sodium cyanide is fed into a dispensing hopper on the top floor of the mixing sector of the process plant. Meliadine adds Sanolin-Rhodamin colouring agent during cyanide mixing operations. During the observation of a cyanide mix, auditors inspected

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the cyanide dispensing hopper area and noticed the presence of the colouring agent next to the equipment. The mixing procedure requires wearing of full-face respirator and Tychem suit with rubber boots and gloves taped at the wrists to prevent exposure to cyanide dust. Reagent operators are trained in the use of the above-mentioned cyanide mixing procedure. During a batch mixing, access to the area is prohibited by red tape affixed at five strategic locations.

AEM has posted cyanide warning signage on all process plant entrance doors visited by the auditor. Similarly, cyanide specific signage is also present when entering the mixing area. The signage is in both English and Inuktitut languages. At the request of the auditor additional signage was placed on the barren solution cyanide tank. Signage is also present on the 40 cubic yard open top container used for the accumulation of cyanide packaging waste to be burned at the dedicated location on the mine site perimeter. Signage is also present at the cyanide sea can storage pad at Meliadine. All piping and tanks potentially containing cyanide solutions have signs on them indicating cyanide content. The observable sections of piping containing cyanide solution has been identified with orange paint with cyanide labels. The flow direction of the solution is also indicated on the piping.

AEM installed 23 emergency showers at strategic locations in the process plant. Emergency shower stations include integrated eye wash equipment. The emergency showers are supplied with a distinct water supply line comprising a heated tank and expansion tank set at 58.5°C. All emergency showers are connected to the control room Human Machine Interface (HMI) system. The emergency showers are inspected weekly through the preventive maintenance system and WO process. Only dry chemical portable fire extinguishers are present in the process plant. Inspection tags of portable fire extinguishers indicate monthly inspections are conducted. No CO₂-based fire extinguishers were observed during the process plant visit or in other buildings where cyanide is present.

AEM subscribes to Paratox, a service provider for online access to updated Safety Data Sheet (SDS) files. The SDS are available in English and French on computers at operator's workstations. The computers are connected to the server and located in strategic areas inside the process plant.

AEM is required to report and investigate all workplace incident, accidents, near misses and work refusals. All health and safety related events are classified and investigated to a level consistent with their nature and actual or potential severity. Investigation may include the affected party, witnesses, supervision, management, H&S Department, subject matter expert and corporate leadership. Whenever a recordable incident occurs, a report will be filed to the Nunavut Workers' Safety & Compensation Commission (WSCC).

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

The operation is: in full compliance



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in substantial compliance
not in compliance...with Standard of Practice 6.3.

Summarize the basis for this Finding/Deficiencies Identified:

At the time of the site visit, a supply of Cyanokits were observed at the health clinic. The Cyanokit is used according to a medical procedure. The health clinic is also equipped with an automated external defibrillator, oxygen with valved mouthpiece, and other first aid and medical equipment to monitor a cyanide exposed operator. The health clinic is always staffed with two registered nurses. Oxygen cylinders with valved mouthpiece units were also available in the process plant office corridor, a millwright shop next to the cyanide mixing area and in the Meliadine ambulance. Water for emergency body showers is available throughout the process plant. All operators working in the process plant are equipped with two-ways radios with direct access to the control room operator.

Nurses are also responsible for the inspection of first aid equipment. In the process plant and ambulance, oxygen cylinders and valved mouthpieces are stored in a nylon pouch or storage cabinet for protection. The H&S Department ensures process plant emergency showers, eye showers are inspected weekly and oxygen cylinders and Automated External Defibrillator (AED) are inspected monthly. The emergency response team also inspects the oxygen cylinder and first aid equipment in the ambulance.

AEM developed a specific procedure to respond to cyanide exposure. The 11-page document was prepared by the Health and Safety Department, approved by the AEM Medical Director, and reviewed by the Meliadine nurses. The document provides detailed information on cyanide exposure routes, symptoms and effects, important safety considerations for responders, medical treatment and Cyanokit administration procedure. The Meliadine nurses developed a protocol for a cyanide-related emergency evacuation for medical reasons. The procedure details the roles and responsibilities of the nursing staff, the Meliadine assigned physician, the Kivalliq Regional physician on call, the Meliadine Emergency Measures Counselor and Keewatin Air Dispatch for the medical air evacuation from the Rankin Inlet airport. The document provides administrative guidance for the escort of the exposed person and the follow up with Nunavut authorities, family, or designated contact of exposed worker. Medical air evacuation is considered in extreme cases only. Under the Nunavut Public Health Administration, the final decision to evacuate a Meliadine cyanide-exposed employee rests with the Kivalliq Regional Physician. The mine maintains contact with the Kivalliq Regional Health Administration and under the legal health services framework of Canada, the Nunavut Public Health Administration has a working agreement with its Manitoba province counterpart regarding patient transfer protocol. Under the legal health services framework, in the event that a cyanide exposed case is considered for evacuation by the Meliadine assigned Physician the Kivalliq Regional Physician will be contacted. The decision to assign a Nunavut or Manitoba province medical facility to further treat a Meliadine employee is based on a case-by-case situation depending on severity of health condition and prevailing weather in Rankin

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Inlet. The Winnipeg Health and Science Centre is the nearest hospital with the capacity to respond to severe cyanide exposure.

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:

AEM has developed and implemented a comprehensive Emergency Response Plan (ERP). The latest iteration of Meliadine’s ERP is dated November 2023. The ERP is further supported by the SCP (Spill Contingency Plan) and CMP. The ERP document provides five different HCN gas or cyanide solution catastrophic accidental release scenarios from storage, process, or regeneration facilities. Similarly, a fire or explosion emergency scenario involving cyanide gas release is detailed in the ERP. The CMP details the measures to ensure safe transportation of cyanide sea cans from the hamlet of Rankin Inlet to the mine.

AEM assumes contractual responsibility of the supplied cyanide once the sea cans have been landed at the Itivia laydown area in Rankin Inlet hamlet after offloading from ship and barge is authorized by Sea Captain from Nunavut Sealink & Supply Inc. The transport of the cyanide sea cans on flatbed trucks follows a 5.9 km Bypass Road to prevent going through the Rankin Inlet hamlet. Afterwards, the cyanide truck convoy follows the 30 km AWAR to the mine. This is the unique road going to the mine. The ERP and CMP details the measures taken to ensure safe transportation of cyanide sea cans from Itivia to the mine. Specific procedures are implemented regarding the bulk transport of cyanide from Itivia to the mine as well as from the mine storage pad to a designated area next to the process plant. The route between Itivia and the mine as well as within the mine perimeter followed a risk assessment process.

The ERP document provides guidance about clearing of site personnel through the implementation of evacuation procedure at the mine site. For cyanide-related emergencies on the AWAR, Bypass Road in Rankin Inlet or the Itivia laydown area, the ERP, SPC, CMP and the Meliadine Crisis Management Plan (MCMP) would be triggered. These documents also provide community notification guidance as part of an emergency response. The ERP document discusses the need to administer first aid and oxygen when an employee is exposed to cyanide. The administration of cyanide antidote is discussed in the ERP and confirmed has a



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reserved practice to on-site nurse as per the cyanide poisoning management procedure. The SCP confirms to stop flow or leak if possible and safe to do so while the ERP provides a list of responses as well as preventive measures to potential releases. The responses include the following: securing site and initiating air quality monitoring actions, remediation during wet and dry conditions and the need to investigate an emergency.

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:

The Meliadine ERP was developed for the construction phase of the mine and transitioned into an operation ERP with necessary cyanide emergency scenarios and responses references. The ERP was prepared internally by mine management and involved emergency response team (ERT) lead and members. The Rankin Inlet Fire Department and hamlet officials were presented the ERP document on different occasions and a refresher presentation for key components of the plan is conducted annually when planning for the cyanide transport season. The Rankin Inlet Fire Department is thus aware of the ERT capacity. The SCP, which contains cyanide emergency response measures, was reviewed by Nunavut regulators which commented on adequacy.

AEM established and maintains contact with Rankin Inlet representatives and local organizations like the fire department, the local Royal Canadian Mounted Police (RCMP) force, Hunters & Trappers groups, Kivalliq Inuit Association, Public Health authorities etc. The ongoing dialogue led to the construction of the Bypass Road that circumvents the hamlet to reduce the potential for accidents and releases when transporting cyanide, fuel, and equipment from the Itivia landing to the mine. Although Meliadine is 30 km away from Itivia, an accidental spill on the AWAR may impact community fishing activities. In this regard and for reasons explained above, AEM has what is considered a robust ERP for Meliadine and cyanide transport procedure to address a possible cyanide release. The emergency response includes effective communications protocol with the potentially affected community of Rankin Inlet.

Due to its isolation, AEM does not rely on external ERT at Meliadine to either address or support a cyanide related emergency. The Rankin Inlet Fire Department is not expected to deploy to Meliadine as this could compromise its ability to protect the hamlet’s citizens and infrastructures. In agreement with the Nunavut Public Health authority and policy, AEM will communicate immediately with Kivalliq Regional Physician on call if a worker exposed to cyanide shows a need for air evacuation to the nearest provincial hospital. A procedure to this effect is established and will be initiated under exceptional circumstances. The procedure states that Meliadine nurse will first consult an AEM hired physician to confirm the nurse

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diagnostic and need for medical evacuation. Then, Kivalliq Regional Physician will be contacted by the Meliadine nurse and will authorize air evacuation. The Meliadine nurse will then contact Keewatin Air Dispatch for air medical evacuation.

AEM maintains communication with territorial agencies, various hamlet representatives and other mine operators located in Nunavut regarding the adopted ERP measures. The communications occur through the annual reporting obligation to agencies such as NIRB, NWB and Chief Inspector of Mines / WSCC. The ERP document is updated with the contact numbers of all external stakeholders including emergency air evacuation ones. Cyanide related activities at the mine as well as land use by local Inuit population (hunting and trapping) have not changed significantly since 2019. Hence, the ERP is considered current with its November 2022 update.

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:

The ERP is considered comprehensive and was updated twice in the last year. The ERP shows a high-level roles and responsibilities diagram that links both emergency and crisis management teams for Meliadine. The diagram identifies roles and responsibilities of an Emergency Response (ER) Incident Commander, an ER Captain and an ERT along with Manager on Duty, the crisis team coordinator and crisis management team. The ERP confirms that the emergency measure counselor is responsible for managing the training ERT members. The CMP provides the steps to initiate an emergency call out procedure by way of radio, base-radio or telephone systems and a specific procedure details the steps to mobilize the ERT members according to different emergency scenarios. The ERP, SCP and CMP documents all provide to varying degree information on emergency response personal protective equipment, emergency response equipment at the mine and two sea cans on the AWAR dedicated to this effect. The CMP document confirms the responsibility of the Emergency Measure Counselor for ensuring ER equipment readiness through programmed maintenance and regular inspection. Additional documentation shows inspection and maintenance schedule details for critical equipment such as respiratory protection equipment.

The ERP and the MCMP also provide detailed information on medical evacuation and the required communications with local health authorities. There is no Rankin Inlet community organization involvement, responsibility, or role in the Meliadine ERP other than the Public Health Services to determine if air evacuation is authorized.

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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:

The ERP provides contact details for Meliadine management, AEM management, medical emergency, law enforcement, Nunavut and federal government agencies for rescue, wildlife, spills. The ERP also shows aviation companies contact and notification information for Rankin Inlet community organizations. Nunavut media distribution list coordinates are presented in the MCMP. The MCMP is linked to the AEM Corporate crisis management plan as required by the Mining Association of Canada of which Meliadine is a member. The ERP confirms that the Meliadine Manager on Duty is responsible for coordination between the emergency response and the crisis management group. Furthermore, the MCMP confirms the Manager on Duty as well as Meliadine’s designated spokesperson(s) responsibilities to contact Meliadine stakeholders including community leaders and government agencies.

The CMP confirms the need to inform ICMI should any cyanide exposure, release, and or impact that is considered to constitute a significant cyanide incident. The information provided includes ICMI email coordinates and notification instruction to be performed by the corporate sustainability team. The need to communicate with ICMI within 24 hours of an occurrence and to provide detailed investigation results within 7 days is confirmed in the CMP.

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:

Remediation measures as appropriate for a possible cyanide release are documented in the SCP. Similarly, Meliadine procedure on cyanide clean-up has also been implemented to address indoor cyanide accidental releases. The SCP is specific to cyanide accidental releases. It provides guidance for the recovery of spilled cyanide on land, ditch, or wetland. The recovered material is to be placed in labelled drums, containers, or Quatrex bags for re-use in the grinding circuit, or off-site disposal at a licensed disposal facility. Similarly, the SCP provides guidance on the decontamination of soil which is to excavate until no visible sign of spilled material. The warning to minimize cyanide dust formation is provided. For release

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inside the process plant, the cyanide clean-up procedure specifies that spill clean-ups are to be disposed in an appropriate sump or tank depending on the amount or presence of debris. Regarding an alternate drinking water supply, AEM keeps an inventory of drinking water on site and the CMP foresees that if the drinking water supply for the Meliadine mine is contaminated, Agnico Eagle Mines will charter a flight to deliver potable to the mine via the Rankin Inlet airport.

The SCP prohibits the addition of any chemical or neutralizing solution to a cyanide spill near a drainage system, or near or into a water body or any situation where there is a potential for impacting surface water is provided. In addition, the SCP confirms an Event Monitoring program designed to address site-specific monitoring if required following an accidental release. The specific parameters monitored depends on the nature and location of the spill. The Event Monitoring program is designed in coordination with the Environment Superintendent or designate.

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 MCMP was last updated in August 2022. The MCMP states that the document needs to be updated on an annual basis and the list of resources every 6 months. The CMP was first issued in August 2022. The Document Control section states that document management system (Intelex) will support that the Plan is reviewed on an annual basis. The current ERP dated November 2022 is the 18th version. The Document Control section shows five updates since April 2018. The ERP states that Plan will be reviewed at least once a year or more frequently to meet legal obligations, continuous improvement, or greater effectiveness. The latest iteration of the SCP is dated August 2022. The Document Control section shows six updates since March 2018. The SCP states the contact information is to be reviewed and updated annually.

The commitment to plan mock drill annually to test identified potential release scenarios is presented in the CMP. The CMP also states that each mock drill will be evaluated for the difficulty of the scenario, the adequacy of the emergency response plan, the training, the adequacy of the response during the mock drill as well as the adequacy of the notification to interested parties. The CMP provides templates for the planning of the mock drill and a cyanide incident fact gathering. The site would apply its comprehensive accident and incident investigation process in the case of a cyanide related emergency. A process plant mock scenario involving a mixing operator exposed to cyanide from an impaired glove (dermal

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exposure) while performing a batch mix was performed on 27 October 2021. The scenario involved the Code 1 call-out procedure and deployment of the ERT. The event occurred at 10:10 am according to mock scenario records (Intelex #14) taken by the Emergency Measures Counselor. On 27 October 2022, a mock drill involving cyanide transport was performed at the cyanide laydown pad within the mine complex. The mock drill involved a loader operator accidentally tearing a sea can and one box of solid cyanide spilling the material on the ground. The Emergency Response Debriefing form, dated 28 October 2022, contained observations and recommendations regarding the mock drill response.

The Intelex IT system used at Meliadine enables the H&S Department staff to view records of incidents and track their resolution or progress through time. The 23 January 2021 cyanide splash on worker's hand in a CIL tank under maintenance is the only cyanide incident on record at the process plant. The incident resulted in an investigation process. The recommendations from the investigation process did not involve a modification of the ERP or other emergency response documents. However, one corrective action resulting from the incident was to add a Cyanokit and oxygen cylinder in a designated area in the process plant which was observed by the auditor during the field portion of the audit.

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:

The Meliadine training department has developed a cyanide awareness module for all personnel, contractors, and consultants who may be exposed to cyanide while at the process plant or elsewhere on site. The training is offered on site by Meliadine trainers (3 in total). It is considered comprehensive and presenting information on hazard recognition, health effects, symptoms of cyanide exposure, location of cyanide at the mine, emergency response measures, alarms, signage recognition in the process plant, and first aid treatment. A second training that includes cyanide awareness information is found in the chemical awareness module. This presentation is intended for mill and mine operators involved in handling different chemicals. It covers topics like categories of hazardous chemicals, container labels, storage and handling, exposure, first aid, diphoteryne use, and safety around hazardous chemicals. A third training that involves cyanide hazard recognition is found in the cyanide task training module. In addition to hazard recognition, the training reiterates fundamental steps when working around cyanide, either when transporting it from Itivia, handling it with

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industrial vehicle, maintaining equipment with cyanide, and preparing a cyanide solution. The safety precaution is further repeated in specific mill procedures. Lastly, a cyanide transportation awareness training is also offered to employees involved in moving the sea cans from the Itivia landing to the mine's dedicated cyanide storage laydown area, as well as from the laydown pad to a specific area next to the process plant building. The training module presents hazard recognition information.

A mandatory cyanide awareness refresher training, which includes hazard recognition, must be completed on a yearly basis for operators involved in the transportation of cyanide and on a three-year cycle for other operators potentially exposed to cyanide. The refresher training is applicable to all Meliadine employees, contractors, and consultants who may be exposed to cyanide at the workplace including process plant operators. The content of the refresher training is the same as the initial training material. The training is followed by a theoretical exam that must be successfully completed.

The training records for cyanide awareness and cyanide task training are compiled and recorded electronically in TMS (Training Management System). All electronic data is imperatively stored on the Meliadine IT server as opposed to personal computer.

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:

Meliadine implements the AEM corporate approach regarding training which rests on two important features: the Training Formula and the Process Plant Career Path. The Training Formula is a guideline document that define key elements of training delivery which are trainer attitude and teaching techniques. The Process Plant Career Path follows a staged approach for operators to occupy a position in the plant. There are ten different operator positions at the Meliadine process plant. These stages include Process Plant Trainee; Utility Person; Crushing Operator; Reagent Operator; Grinding Operator; Paste Plant Operator; Filtration Operator; Leach CIL Operator; Control Room Operator and Relief Operator. Each position has its own requirements in terms of qualification and hours in position before moving to the next operator level. Each position includes a specific Cyanide Task Awareness training requirement.

The training elements necessary for each job involving cyanide management are found in the awareness training material or directly in the operating procedures used as training material. As stated above, training elements are integrated through the theoretical review and the

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supervised execution of cyanide related operating procedures. The operating procedures identify the elements necessary for safe performance of the task to be performed like PPE requirements or securing mixing area with red tape as well as ensuring air evacuation fans are functional prior to start of mixing.

While general site induction training is followed online, task training related to cyanide management activities is conducted in classrooms at the mine. AEM relies on three full time trainers at the process plant. The full-time trainers have Train the Trainer certification in addition to 30, 12 and 7 years of process plant experience respectively. All trainers are vetted by the Meliadine Training Coordinator to ensure alignment with the Training Formula guidelines of trainer attitude. Hence trainers are selected based on technical expertise and teaching abilities and skills.

All employees are trained for the position and task prior to execution in the plant and elsewhere at the mine when cyanide is present. As indicated above, the Process Plant Career Path defines the sequence of operator positions an employee will follow as well as the training requirements associated with each position. 2,000 hours in a position is required before petitioning for a promotion to a higher-level operator position. During the tenure of the position, an operator will receive training toward the next operator level.

AEM ensure refresher training on cyanide management in two different ways. First, it requires the cyanide task training module be followed every year for all operators working around cyanide. A refresher training on cyanide awareness is also required every three years for process plant operators and yearly for cyanide transportation operators. Secondly, the supervision formula implemented at Meliadine entails that a Work Card be completed every day by the worker and the supervisor. The supervisor is then required to meet with the operator and oversee his or her work during the day. This oversight provides an opportunity to discuss cyanide related risks. The Work Card process is part of the company's Supervision Formula.

The effectiveness of cyanide training, mainly cyanide awareness, safe chemical handling, cyanide task training, and cyanide transportation awareness, is verified through theoretical testing after in-class training material has been covered. The task training program given by the Training department, includes a field component where the worker is observed by the trainer while completing the task. For all task trainings, the worker must succeed the practical part of the evaluation to be officially vetted as satisfactorily trained. For example, the cyanide mixing training will include an actual mix of cyanide as part of the training evaluation. All training results are recorded in TMS.

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



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not in compliance...with Standard of Practice 8.3.

Summarize the basis for this Finding/Deficiencies Identified:

Meliadine operators involved in cyanide unloading, mixing, production, maintenance as well as transportation are trained in the procedures to be followed in case of accidental release. Similarly, process plant operators are also trained in cyanide related first aid and decontamination. The first response training on expected behaviour and action regarding cyanide release, decontamination and first aid is found in the cyanide awareness training material. The initial expected response of operators is to call for Code 1, which alerts the emergency response team to intervene in case of an observed cyanide spill. A second training reference documenting an operator's anticipated response to an accidental cyanide release is found in the cyanide task training module.

ERT coordinator and members follow five trainings modules: rope rescue; first aid; hazmat; firefighting and underground medical and small fire. In addition, ERT members follow mandatory training in cyanide awareness. The ERT is also trained in the decontamination procedure presented the SCP and described in the cyanide decontamination procedure. The training associated with the use of the spill response equipment is covered in Hazmat training which ERT members need to maintain participation as per legal requirement. ERT members participate in the yearly transportation of cyanide sea cans from Itivia landing to the mine site. Other ERT training on procedures include hazmat incident management plan; hazmat operations PPE; and cyanide poisoning management.

The Meliadine mine is located approximately 30 km by road from the hamlet of Rankin Inlet in the Nunavut territory. The Meliadine mine emergency response team is equipped and trained to respond to on-site cyanide-related emergencies including spills inside process plant, or on roads around the mine, or during transport from Rankin Inlet. Rankin Inlet fire department is not expected to play a role in an emergency. However, during the cyanide sea can transportation season, the local fire department is made aware of the transportation schedule and temporary closure of the AWAR through local meetings.

As above, mandatory cyanide awareness and cyanide task training refresher training are required every 3 years and on an annual basis, respectively. The refresher training is applicable to all Meliadine employees with a role or responsibilities in the event of a cyanide exposure or release in the process plant or elsewhere at the mine or during the cyanide transport season. This would include transport contractors. The content of the refresher training is the same as the initial training material. The refresher training is followed by a short quiz that must be successfully completed. The employee training records are now available electronically through TMS. These include ERT members. When performing a search for a specific employee or contractor on TMS, results show employee number, course name, grade obtained, date of training, trainer name, expiry date of training as well as the number of hours associated with the training.

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9. DIALOGUE AND DISCLOSURE Engage in public consultation and disclosure.

Standards of Practice

9.1 Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

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:

The Meliadine mine operates under the NIRB framework and its specific Inuit Impact Benefit Agreement (IIBA). As such, AEM must engage with various stakeholders to address concerns regarding mining operations. The stakeholder engagement program at Meliadine is facilitated by the presence of a Meliadine mine office in the hamlets of Rankin Inlet and Chesterfield Inlet where a Community Liaison Officer (CLO) is located and responsible for disseminating information to, and receiving queries or complaints from, local community groups and individuals. The favoured media to provide information to local stakeholders is through local radio station as well as its Facebook page.

In addition to the above-mentioned means of communication, AEM is engaged with various organizations through different committees as required by the IIBA. One of the committee responsible for identifying and resolving issues that arise is the "On-Site Working Group" (OSWG). Otherwise, AEM liaises with organizations such as the Kivalliq Inuit Association (KivIA), Kivalliq Wildlife Board, Rankin Inlet Hunters and Trappers Organization (KHTO), Meliadine Elders group, Meliadine Womens' group, the Rankin Inlet hamlet administration, health centre officials, fire department and RCMP, among others. In 2021, AEM participated or hosted 54 meetings, consultations, teleconferences, bus tour of the mine, and events with local communities on a wide range of topics including cyanide transportation and mine operations. The Covid-19 pandemic impacted the way the community engagement activities were implemented but not their occurrence.

9.2 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 9.2.

Summarize the basis for this Finding/Deficiencies Identified:

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A 4-page document in English and in Inuktitut has been developed for the Meliadine operation, which provides a short explanation in plain language on the ICMC, what is cyanide, how cyanide is used at the mine, how cyanide is transported to the mine, the risks associated with cyanide exposure or release in the environment, and the cyanide safety measures implemented at the mine. The document is available on the company's Internet site (ref. [Cyanide-Management-2021-Meliadine.pdf \(aemnunavut.ca\)](#)). According to interview, the liaison office also provides the document in a paper form. The document encourages individuals to submit any questions, concerns, or complaints on cyanide-related issues through a grievance mechanism known as "Tusaajugut" (We're Listening) by using either phone numbers provided or an email address on the company's Internet site. The document also invites individuals and organization representatives to express their concerns directly at the Meliadine liaison offices in Rankin Inlet and Chesterfield Inlet.

In addition to a written document, AEM verbally communicates information about cyanide management during meetings and events with various stakeholders including the annual information sessions regarding the sealift season when supplies are delivered by the maritime route. The meetings in Rankin Inlet are facilitated by the Community Liaison Officer who can act as a translator.

AEM is legally required to communicate cyanide-related accidents and incidents to the Nunavut WSCC. The information provided to the regulatory agency becomes public domain by virtue of the Access to Information and Protection of Privacy Act in Nunavut. In addition, AEM shares spill-related information to NIRB through its annual reporting obligation. The *Meliadine Annual Report* is posted on the NIRB Internet site and is accessible to public. Finally, cyanide-related accident and incident information is communicated to the NWB, CIRNAC and KivIA, an important community stakeholder, through monthly reports. Other than legally required communications to Nunavut organizations, AEM shares cyanide-related incident and release information through its corporate annual *Sustainability Report*. The AEM *Sustainability Report* presents company-wide aggregated data.

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