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Prairie & Northern Region
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ECCC File: 6100 000 010/024
NIRB File: 05MN047



June 23, 2025

via email at: info@nirb.ca

Tori Evalik
Public Registry Coordinator
Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Dear Tori Evalik:

RE: 05MN047 – Agnico-Eagle Mines Inc. – Doris North Mine Project and Hope Bay Belt Phase 2 Project – 2024 Annual Report

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) by Agnico-Eagle Mines Ltd. (“the Proponent”) regarding the above-mentioned annual report.

ECCC provides expert information and knowledge to project assessments on subjects within the department’s mandate, including climate change, air quality, water quality, biodiversity, environmental emergencies preparedness and responses. This work includes reviewing proponent characterization of environmental effects and proposed mitigation measures. We provide advice to decision-makers regarding a proponent’s characterization of environmental effects, the efficacy of their proposed mitigation activities, and may suggest additional mitigation measures. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

ECCC will copy the NIRB on any water quality comments submitted to the Nunavut Water Board (NWB) for the review of the Hope Bay 2024 Annual Report, due July 4, 2025.

The following comments are provided:

1. Wind direction inconsistency

Reference:

Hope Bay 2024 Annual Report

- Appendix D.1. Q1-Q3 2024 Atmospheric Compliance Monitoring Program Report
 - Section 4.2. Canister Sampling Dustfall Results
 - Table 4.5. Summary of Measured Dustfall Levels from Canister Sampling in 2024 – Doris Site

Comment:

In Section 4.2, Subsection 4.2.1 Doris Site, the text states that winds were predominantly blowing from easterly directions through the sampling period. However, in Table 4.5, three of the four months have prevailing winds from the west or southwest. Wind direction determines where air emissions move and which receptors are affected, and which aquatic systems may be impacted by deposition of coarse particulates.

ECCC Recommendation:

ECCC recommends that the inconsistency in the predominant wind direction be reconciled.

2. Training

Reference:

Hope Bay 2024 Annual Report - General Comment

Comment:

A summary of all training activities and exercises (for example, annual spill response exercises) was not provided in the annual report. Inclusion of a summary helps indicate that appropriate training is being provided, and that the site personnel are prepared to respond in the event of an incident.

ECCC Recommendation:

ECCC recommends that a summary of training and exercises run in 2024 be provided in the annual report.

3. Sources of ignition

Reference:

Hope Bay 2024 Annual Report

- Appendix F.3. Spill Contingency Plan
 - Section 2.4 Spill Response Actions (pp. 28-34)

Comment:

A best practice frequently noted as an initial step in spill response is to remove any sources of heat or ignition (until the spilled substance has been identified and it is determined that sources of heat or ignition are safe in their vicinity). This is an important safety measure, as spills may release flammable or explosive vapours.

ECCC Recommendation:

ECCC recommends that a statement be added to the spill response section specifying that sources of heat or ignition should be removed until the spilled substance has been identified (and it is confirmed that sources of heat or ignition do not pose a fire / explosion hazard in the vicinity of the spilled substance).

4. General mitigation measures

Reference:

- Hope Bay 2024 Annual Report
- Appendix F.3. Spill Contingency Plan
 - Section 4. Spill Management and Mitigation (p. 42)

Comment:

At remote sites such as where this project is located, the implementation of additional mitigation measures is prudent to help to decrease the likelihood of spills and minimize the need for spill response actions which are made more challenging by the project's isolation from transportation infrastructure. To that end, the Proponent may wish to consider implementing the suggested additional mitigation measures.

ECCC Recommendation:

ECCC recommends the Proponent consider including additional mitigation measures within the Spill Response Plan, to help mitigate the likelihood of leaks and spills. These include:

- Section 4.3. Spill during Transfer
 - Fuel nozzles equipped with automatic shutoffs
 - Operators stationed at both ends of hoses during refueling operations, unless both ends of the hose are visible and accessible by one operator
 - Fuel remaining in hoses is discharged into equipment or returned to the storage container

- Refuel at least 31 m from the normal high-water mark of any water body
- Use of drip trays or absorbent mats at prevent drips when refueling vehicles or equipment in an area that does not have secondary containment
- Provide adequate lighting at refueling areas
- Section 4.4. Spills from Equipment
 - Use of secondary containment for any equipment with a built-in fuel tank
 - Use of biodegradable hydraulic oil (when appropriate) for equipment that is working near or in water
 - Park vehicles and equipment at a location that is at least 31 m from the normal high-water mark of any water body

5. Secondary containment

Reference:

Hope Bay 2024 Annual Report

- Appendix F.3. Spill Contingency Plan

- Appendix C. Madrid

- Section C2. Chemical Storage at Madrid North and Madrid South

- Table C.1. Madrid North Fuel and Chemical Storage Total Quantities
(pdf p. 77)

Comment:

There is no information provided on the containment / secondary containment (i.e., type and size) used for the hazardous substances listed in Table C.1. It is recommended that this information be included, as secondary containment is an important mitigation measure for spills and leaks.

ECCC Recommendation:

ECCC recommends that containment / secondary containment (i.e., type and size) be included for the hazardous substances at the Madrid North and Madrid South sites.

6. Secondary containment under hose couplings during fuel transfer

Reference:

Hope Bay 2024 Annual Report

- Appendix F.2. Oil Pollution Prevention Plan (OPPP) and Oil Pollution Emergency Plan (OPEP)

-Schedule 2, Section 4.2. Pre-staged Equipment (p. 26)

Comment:

In similar plans for mines where fuel transfer needed to take place from a ship to a bulk storage facility, portable secondary containment was placed under couplings of all hoses to catch leaks. Although this is mentioned in the checklist on p. 29, it is recommended that this step be included in the list in Section 4.2, as the portable secondary containment is an important mitigation measure to prevent the release of fuel in the event of a malfunction.

ECCC Recommendation:

ECCC recommends that portable secondary containment under hose couplings be included in the list of pre-staged equipment before a fuel transfer takes place.

7. Compliance monitoring comment

Reference:

Comment Request for Agnico-Eagle Mines Ltd. (AEM) Hope Bay 2024 Annual Report

Comment:

- No authorizations from ECCC have been issued.

The AEM Hope Bay Project is captured under the following pieces of ECCC legislation:

a. Fisheries Act (FA):

- Pollution Prevention Provisions (i.e. subsection 36(3))
- Metal and Diamond Mining Effluent Regulations (MDMER)

b. Canadian Environmental Protection Act (CEPA):

- Environmental Emergency Regulations
- Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations
- Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations
- National Pollutant Release Inventory

c. Greenhouse Gas Pollution Pricing Act (GGPPA):

- Output-Based Pricing System Regulations

ON-SITE INSPECTIONS:

1. From July 4-10, 2024, a Multi-Reg on-site inspection was conducted to verify compliance under the FA, CEPA and GGPPA
2. On July 10, 2024, the following samples were collected from the site's only final discharge point, Robert's Bay Discharge-1 (RBD-1)
 - a. Multi-concentration *Acartia tonsa* Bioassay LC50
 - b. Multi-concentration Rainbow Trout Bioassay LC50
 - c. Suspended Solids, dissolved solids, pH
 - d. Total Metals/ Hardness/ Major Anions (sulphate and chloride)
 - e. Ammonia
 - f. Cyanide
3. The Laboratory sample analysis concluded that the effluent discharged at RBD-1 was within compliance of the criteria found under MDMER.
4. No other instances of non-compliance were noted under the FA or CEPA.
5. Two referrals were received by Environmental Enforcement Directorate (EED) regarding the GGPPA, related to calibration of meters and submission of reports. Both referrals were considered resolved in March 2025 and no action was taken by EED.

MDMER:

The project is subject to the MDMER. The purpose of the MDMER is to authorize a deposit of certain deleterious substance(s) into water frequented by fish while monitoring the environmental effects of those deposits to ensure that deleterious substances are not released in quantities or concentrations that could result in harmful effects on waters frequented by fish. To do this, certain effluent deposit conditions (concentrations, limits and parameters) apply so that regulatees are exempted and protected from the more stringent prohibition of subsection 36(3) under the Fisheries Act. Samples of the effluent by AEM must be taken and tested at the identified Final Discharge Point (FDP) to ensure the above conditions are met on a scheduled basis and reported. Only one current FDP is active and is described as follows:

1. FDP Roberts Bay Discharge-1 (RBD-1) intermediately effluent discharge from Tailings Impoundment Area by 710 pump house and or Water Treatment Plant 720 pump house 8km overland to 730 pump house then into Roberts Bay the Arctic Ocean through a diffuser. The effluent consists of water collected from three sources:
 - a. Contact water ponds
 - b. Saline water from underground
 - c. Excess water in the reclaim pond of the tailings impoundment area

MDMER reports are to be submitted via ECCC's online database (Mine Effluent Reporting System - MERS) which are reviewed by an assigned Enforcement Officer on a quarterly basis. The quarterly administrative regular report verifications are conducted to ensure that the sampling and testing has been conducted in accordance with the MDMER and ensuring the reports are submitted on time. Each enforcement activity includes an administrative verification of each quarterly report which are due within 45 days of the end of each quarter: 1st Quarter (due May 15), 2nd Quarter (due Aug 14), 3rd Quarter (due Nov 14), and 4th Quarter (due Feb 14). The Enforcement Officer also completed an administrative verification of the 2024 Annual Effluent Monitoring Summary Report (due March 31). Furthermore, an administrative verification was completed on the Environmental Effects Monitoring (EEM) 2024 Annual Report (information related to effluent and water quality monitoring studies).

AEM submitted all required MDMER reports. A review of the reports determines:

1. 2024 First Quarter:

- Report submitted on time.
- FDP RBD-1: Effluent was discharged in Q1, no non-compliance was determined.

2. 2024 Second Quarter:

- Report submitted on time. No enforcement actions taken.
- FDP RBD-1: Effluent was discharged in Q2, no non-compliance was determined.

3. 2024 Third Quarter:

- Report submitted on time.
- FDP RBD-1: Effluent was discharged in Q3, no non-compliance was determined.

4. 2024 Fourth Quarter:

- Report submitted on time.
- FDP RBD-1: Effluent was discharged in Q4, no non-compliance was determined.

5. 2024 Annual Effluent Monitoring Report:

- Report was submitted on time and no compliance issues noted.

6. 2024 Annual EEM Report:

- Report submitted late. No enforcement actions taken.
- No other issues related to compliance was noted.

ECCC Files Regarding Reported 2024 Spills:

1. 2024-026 – Lead agency CIRNAC – Hydraulic oil onto Patch Lake Ice - File closed – No Enforcement Action Taken under Fisheries Act 36(3)

2. 2024-030 – Lead agency CIRNAC – Engine Oil onto Patch Lake Ice - File closed – No Enforcement Action Taken under Fisheries Act 36(3)
3. 2024-027 – Lead agency CIRNAC – Drill Cuttings Release onto Patch Lake Ice - File closed – No Enforcement Action Taken under Fisheries Act 36(3)
4. 2024-029– Lead agency CIRNAC – Drill re-circulation water - File closed – No Enforcement Action Taken under Fisheries Act 36(3)
5. 2024-037 – Lead agency CIRNAC – Hydraulic oil onto Patch Lake Ice - File closed – No Enforcement Action Taken under Fisheries Act 36(3)
6. 2024-049 – Lead agency CIRNAC – Hydraulic oil onto Patch Lake Ice - File closed – No Enforcement Action Taken under Fisheries Act 36(3)

ECCC Recommendation

N/A

If you need more information, please contact Erik Allen at Erik.Allen@ec.gc.ca.

Sincerely,

Erik Allen
Senior Environmental Assessment Officer

cc: Eva Walker, Head, Environmental Assessment North (NT and NU)