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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

**Licence No: 2AM-MEL1631**

February 21, 2024

Manon Turmel  
Permitting and Regulatory Affairs Superintendent  
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11600 rue Louis-Bisson,  
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Email: [manon.turmel@agnicoeagle.com](mailto:manon.turmel@agnicoeagle.com)

**RE: NWB Technical Review of the 2022 Annual Report for Type A Water Licence 2AM-MEL1631, issued to Agnico Eagle Mines Limited for the Meliadine Mine Project.**

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Ms. Turmel,

The Nunavut Water Board (NWB or Board) has completed the technical review of the 2022 Annual Report (Report), for the Water Licences 2AM-MEL1631, issued to Agnico Eagle Mines Limited (Agnico Eagle or Licensee or AEM) for the operation of the Meliadine Mine Project. The Annual Report was received on March 31, 2023 and the Annual Geotechnical Inspection report was received on April 17, 2023.

The NWB distributed the submissions to interested parties on April 17, 2023, for a ninety (90) day public review.

By July 7, 2023, the NWB received comments from Crown-Indigenous Relations and Northern Affairs (CIRNA), Kivalliq Inuit Association (KivIA), Environment and Climate Change Canada (ECCC), and the Department of Fisheries and Oceans (DFO). Agnico Eagle requested an extension to provide responses and submitted their response to comments on September 15, 2023.

On October 17, 2023, CIRNA explained that the information requests related to the 2022 Annual Report had some similar topics which were being discussed in the ongoing Meliadine Extension Amendment Application. To avoid conflict and confusion, CIRNA suggested they will review Agnico Eagle's responses related to the 2022 Annual Report, after the discussions around the Meliadine Extension Amendment Application were completed. It is possible that parties may have reached resolutions to some of their questions and concerns during the Technical Meeting held on October 12-13, 2023.

ECCC and KIA did not respond with any follow-up questions or concerns. DFO submitted follow-up information requests on October 20, 2023. On December 15, 2023, CIRNA responded with some outstanding comments.

Copies of all documents, including Interveners' comments and responses received during the review can be accessed through the NWB's Public Registry and FTP site using the following link:

<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEL1631%20Agnico/3%20TECH/B%20GENERAL/2%20ANNUAL%20RPT>

The following table provides a brief summary of the issues identified during the Report review that pertain to the NWB's mandate, which require follow up. The table provides comments/deadlines for the Licensee to provide information. For the Interveners' discussion of these items, please refer to the comment submissions referenced above. It should be noted that a number of questions/comments from Interveners were addressed during the review process; therefore, these items are not included within the table.

| #   | Comment / Recommendation   | NWB comment / note / deadline                                  |
|---|--|--|
| Crown-Indigenous Relations and Northern Affairs (CIRNA) |  |  |
| R-1   | CIRNAC states that instrumentation for thermal monitoring should be operational throughout the life of mine. CIRNAC recommends that <i>"AEM replace the horizontal GTC units in WRSF3 and Berm CP6 that were reported to be only partially functioning and any other damaged thermal monitoring instrumentation if it cannot be repaired."</i> | Agnico Eagle will provide an update in the 2023 Annual Report. |
| R-2   | (a) add a B-B (north-south) cross-section of the TSF in Appendix 13 along with the east-west cross-section.  | Agnico Eagle will provide an update in the 2023 Annual Report. |
|   | (b) The Annual Report should contain a section to describe annual itemized water use as per major categories instead of reporting a single value for the total water use.  |  |
| R-3   | (a)&(b) Agnico Eagle should provide a schedule of construction and include updated details on the progress, in the 2023 Annual Report.   | Agnico Eagle will provide an update in the 2023 Annual Report. |
|   | (c) AEM to confirm that <i>"saline water from Tiriganiaq Pit 2 or any other saline water storage would never be mixed with surface water and/or discharged into Meliadine Lake. If saline water needs to be stored in any pit or pits during the operation, Agnico Eagle should evaluate the activities and ask for NWB approval."</i>         |  |

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| R-4 | AEM to provide studies supporting in-pit sludge disposal including rationale and evidence that the practice of disposing of sludge waste will not result in significant environmental impacts.   | Agnico Eagle will provide an update in the 2023 Annual Report. |
| R-5 | AEM will seek NWB's approval if saline water is stored in Tiriganiaq Pit 2, or any other pit, beyond 2025.   | Agnico Eagle will provide an update in the 2023 Annual Report. |
| R-6 | Data provided through the AEMP and the Kivalliq Inuit Association's One Voice program suggest that phosphorus in the mining effluent is impacting the productivity of the southeast basin of Meliadine Lake. CIRNAC recommends AEM study the water quality issues in Meliadine Lake.   | Agnico Eagle will provide an update in the 2023 Annual Report. |
| R-7 | CIRNAC stated that the Adaptive Management Plan <i>"is not part of the license and the NWB did not approve any version of it. Implementation of any activities related to the Adaptive Management Plan is not valid as those are not approved by NWB. As such, Agnico Eagle needs NWB's formal evaluation and approval to implement any activities referred to as part of the "Adaptive Management Plan"</i> . | Agnico Eagle will provide an update in the 2023 Annual Report. |

| Kivalliq Inuit Association (KivIA) |   |  |
|------------------------------------|---|--|
| KivIA-8                            | <p>1. AEM should prioritize discharge to to Itivia harbour once the waterline is operational. Until then, if feasible, redirect water from the STP, CP3, CP4, and CP5 to TIR02 for storage.</p> <p>2. AEM should ensure that the waterline's capacity is able to eliminate discharge to Meliadine Lake.</p> | <p>AEM stated that they are using TIRI 02 pit to store saline groundwater, until the waterline is operational. Adding water from the STP, CP3, CP4, and CP5 to TIR02 for storage is not feasible.</p> <p>The capacity of the waterline will be 20,000 m<sup>3</sup>/day. AEM will minimize discharge of contact water to Meliadine Lake by means of maximizing the available capacity of the waterline</p> |
| KivIA-9                            | AEM to clarify the assumptions leading to a 70% uptime of the planned waterline and provide a realistic uptime.   | AEM will strive to achieve a maximum possible availability of the SETP-WTC and waterline and has assumed 70% availability as a conservative input for modeling.  |

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| KivIA-10 | KivIA inquired whether AEM has plans to complete field trials to determine effective capping thickness to the TSF.   | AEM responded that no field trials are currently planned as the capping is meeting expectations.   |
| KivIA-11 | KivIA requested specifics on the number of years, after concluding operations, that the carbonates will neutralize the acidity and whether additional carbonates will be added.  | AEM stated that this is a hypothetical scenario which would be applicable for a facility that will not undergo freeze back.  |
| KivIA-12 | <ol style="list-style-type: none"> <li>1. Provide the total water used for dust suppression in 2022.</li> <li>2. The correct volumes for the two entries on 6/15/22.</li> <li>3. If reclaim water is used for dust suppression on the AWAR, runoff is recaptured to the contact water management facilities?</li> <li>4. The source(s) of the water used for dust suppression in 2022.</li> <li>5. Total water used for dust suppression in 2022 is included in the annual volume of water withdrawn from Meliadine Lake?</li> </ol> | <ol style="list-style-type: none"> <li>1. The total volume of reclaim water used for dust suppression in 2022 was 6,253 m<sup>3</sup>. Approximately 2,225 m<sup>3</sup> of fresh water from obtained from Meliadine Lake.</li> <li>2. The correct values are 60 m<sup>3</sup> each.</li> <li>3. The water which was used on August 8th on the AWAR was sourced from MEL-11, and not CP1. No reclaim water is used for dust suppression on the AWAR.</li> <li>4. The sources of water used for dust suppression in 2022 are reclaim water from CP1, and freshwater obtained from Meliadine Lake.</li> <li>5. Yes.</li> </ol> |

| Environment and Climate Change Canada (ECCC) |   |   |
|--|---|---|
| EC-1   | ECCC recommends review of the modeling for ammonia and total phosphorus in CP1.   | Agnico Eagle will conduct a study and will provide a discussion on this study in the 2023 Annual Report.  |
| EC-2   | ECCC recommends AEM clarify what the tailings pore water salinity is in relation to the TSF design assumptions and how this will affect the chemical performance of the facility. | Agnico Eagle stated that the average porewater salinity is below the design limit. Further assessments are ongoing. AEM further states that minimal negative impact to the geochemical performance of the TSF is expected at this time. |

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| EC-3 | ECCC requested clarification regarding inconsistencies in the stated wind directions. | Agnico Eagle confirmed that the wind directions are correct. |
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| Department of Fisheries and Oceans (DFO) |   |  |
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| DFO-3                                    | DFO requests AEM to ensure accurate vessel tracks, and compliance with setbacks from sensitive habitats. AEM should pursue additional options to fill in data gaps in vessel locations, and confirm compliance.   | Agnico Eagle will provide an update in the 2023 Annual Report. |
| DFO-4                                    | DFO requests that AEM should update their marine mammal monitoring protocol and include increased monitoring efforts. This updated protocol should be developed by a marine mammal expert, be reviewed and approved by DFO.                                 | Agnico Eagle will provide an update in the 2023 Annual Report. |
| DFO-5                                    | AEM to include a non-Indigenous Species/Aquatic Invasive Species Monitoring Program around zones of higher risk. This monitoring plan should be developed by an expert, be reviewed and approved by DFO.  | Agnico Eagle will provide an update in the 2023 Annual Report. |
| DFO-6                                    | AEM to monitor and model their noise footprint using expert support. This model should aim at evaluating the impact of shipping noise on marine mammals present on the shipping route. A Shipping Management Plan should be updated according to the model. | Agnico Eagle will provide an update in the 2023 Annual Report. |

After completing the review of the 2022 Annual Report Submission for the Meliadine Mine Project Licence 2AM-MEL1631, the NWB has determined that the information provided generally addresses the requirements of current Water Licence. Please ensure the comments provided in the table above are addressed by the deadlines specified.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 (ext. 33) or [ali.shaikh@nwb-oen.ca](mailto:ali.shaikh@nwb-oen.ca), at your earliest convenience.



Mohammad Ali Shaikh  
Nunavut Water Board,  
Technical Advisor

Enclosed: Comments – CIRNA, KivIA, ECCC, DFO

Cc: Distribution List – Meliadine