



Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 036/010
NWB File: 2AM-MEL1631

April 2, 2025

via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

RE: 2AM-MEL1631 – Agnico Eagle Mines – Meliadine Mine – Updated Management Plans

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) by Agnico Eagle Mines ("the Proponent") regarding the above-mentioned management plans.

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

The following comments are provided:

1. Sludge in Water Management Plan

Comment

The Proponent provided information on the assumed solids contents of sludge from the future Saline Effluent Treatment Plan (SETP). They also stated there are two versions of the Water Balance and Water Quality Model (WBWQM): operational and water licence amendment (WLA). The response states that though the WLA model does not consider sludge inputs, the operational model does. Though it is expected that quantities and flows in an operational WBWQM would be updated more frequently to incorporate dynamic site conditions, all sources and sinks should be included in the WBWQM and shared through the Nunavut Water Board for



reviewers to understand how water is being managed. If the operational model already incorporates sludge volumes, this information should be able to be provided to reviewers.

The Proponent will provide further details on the sludge produced by the ammonia treatment train of the future SETP once they are known, but no timeline has been specified. Since saline water production is ongoing, saline pond capacity is limited and treatment is required prior to discharge, the timing of SETP construction and commissioning has an incidence on saline water management on site that should be reflected in the WBWQM.

ECCC Recommendation(s)

ECCC recommends the Proponent provide a WBWQM that accounts for sludge deposition in the saline water storage ponds. Additionally, they should provide a timeline for discharge of saline water to Itivia Harbour through the SETP and waterline, to be incorporated in the WBWQM.

2. Mitigation Measures in Interim Closure and Reclamation Plan

Comment

The Proponent is delaying their commitment to include mitigation measures in the Interim Closure and Reclamation Plan until the second iteration of the Plan following licence issuance, to be submitted with the 2024 annual report.

ECCC Recommendation(s)

ECCC's recommendation remains unchanged. ECCC continues to recommend the Proponent update the ICRP to include the potential mitigation measures for addressing parameter concentrations predicted to be above screening criteria during post-closure, as discussed at the technical meeting and in their response to final written submissions.

3. Addition of new peninsula lakes in Aquatic Effects Monitoring Plan

Comment

The Proponent is delaying their commitment to add a second new peninsula lake (other than Lake E3) to a further iteration of the Aquatic Effects Monitoring Program (AEMP) Design Plan. They are also proposing to study Lake A1, instead of the lakes discussed as possibilities at the Public Hearing, Lakes G2 and H1. Though limited data is available on Lake A1, its surface area, location relative to project components, and availability of Final Environmental Impact Statement (FEIS) predictions make the lake a reasonable monitoring candidate. It will be important for the Proponent to follow through on their commitment to conduct additional water quality monitoring on Lake A1 in 2025 if it is to be integrated in the AEMP Design Plan prior to dewatering Lake B7.

ECCC Recommendation(s)

ECCC recommends that the Proponent ensure additional monitoring is conducted in time for it to be integrated into the AEMP design plan prior to any dewatering activities.

4. Comparison to FEIS predictions in Aquatic Monitoring Program Design Plan

Comment

The Proponent's response addresses ECCC's concern

5. Climate Conditions

Comment

The Proponent's response addresses ECCC's concern

If you need more information, please contact Russell Wykes at (867) 445-1263 or Russell.Wykes@ec.gc.ca.

Sincerely,

Russell Wykes
Senior Environmental Assessment Officer

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