

Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 012/008
NWB File: 2BB-MEL1424



February 19, 2024

via email at: licensing@nwb-oen.ca

Robert Hunter
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Robert Hunter:

RE: 2BB-MEL1424 – Agnico Eagle Mines Limited – Meliadine Gold Mine – Proponent Responses to ECCC Comments on the Type B Renewal Amendment Application

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Proponent responses to ECCC's comments on the Type B Water Licence Renewal Amendment Application.

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 preparedness and emergencies. 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. Remediation Criteria for Soil Treated in Landfarm

Reference(s)

- Meliadine Mine, Landfarm Management Plan – 2BB-MEL Water Licence, December 2023, Version 5
- Meliadine Gold Project, Interim Reclamation and Closure Plan – 2BB-MEL, December 2023



- Abandoned Military Site Remediation Protocol, Volume I – Main Report, Indian and Northern Affairs Canada, Northern Affairs Organization, Contaminated Sites Program, December 2008
- Environmental Guideline for Contaminated Site Remediation, Department of Environment, Government of Nunavut, March 2009
- Agnico Eagle, Meliadine 2BB-MEL1424 Renewal, Responses to Comments, February 6, 2024

Comment

The Remedial Action Plan, located in Appendix D of the Proponent's response, is helpful for providing context. However, there are still inconsistencies in the Proponent's proposals, specifically:

- a) Response bullet 1) ii. Which states: "Treated material that meet AMSRP [Abandoned Military Sites Remediation Protocol] threshold can be place in the WRSF [Waste Rock Storage Facility] or used as cover at the TSF [Tailings Storage Facility]." And
- b) Response bullet 3) which states "Agnico Eagle is proposing to change the soil remediation criteria used to the AMSRP guidelines for the protection of human health and the management limit. The final depth of treated soil will be greater than 0.5 m and the final placement will be greater than 30 m from surface waterbodies."

ECCC notes that material used as cover at the TSF could be within 0.5 m of the surface, and therefore would not meet the placement criteria for soils treated to the AMSRP guidelines.

If the Landfarm Management Plan does not include a distinction of where treated material can be disposed of dependent on treatment criteria, a conservative approach would be to use the most stringent criteria, which is the Environmental Guideline for Contaminated Site Remediation (Government of Nunavut [GN] Remediation Guidelines) for soils at the surface. Currently the Proponent has proposed using the GN remediation guidelines for industrial land use as criteria.

Though the current land use could qualify as industrial, closure objectives are not to return the site to industrial standards. The first closure objective stated in Section 2.8 of the Remedial Action Plan is "physically and chemically stable lands and waters at the reclaimed Meliadine site that are safe for human, wildlife and aquatic life". The GN remediation guidelines for agricultural/wildland land use would be most appropriate for closure.

ECCC Recommendation(s)

Based on the Proponent's response, ECCC recommends updating the Landfarm Management Plan to use GN Remediation Guidelines, remove references to AMSRP criteria (since the placement criteria would not be met) and include a register of locations where soils not meeting GN Remediation Guidelines for Agricultural/Wildland land use are disposed of at the surface.

2. Segregation of Contaminants Treated at Landfarm

Reference(s)

- Meliadine Mine, Landfarm Management Plan – 2BB-MEL Water Licence, December 2023, Version 5
- Agnico Eagle, Meliadine 2BB-MEL1424 Renewal, Responses to Comments, February 6, 2024
- Appendix D: Meliadine Mine Landfarm Remedial Action Plan, Agnico Eagle, Meliadine 2BB-MEL1424 Renewal, Responses to Comments, February 6, 2024

Comment

Both bullets of the Proponent's response address the first bullet of ECCC's recommendation; however, additional information is needed, as the response contradicts parts of the Landfarm Management Plan.

- a) Response bullet 1) states "When it is not possible to segregate materials contaminated with heavy hydrocarbons, it will be disposed of in the Landfarm, given that they meet the requirements as outlined in Section 3.1.1 of the Landfarm Management Plan."
- b) Soils contaminated with heavy hydrocarbons do not meet the requirements outlined in Section 3.1.1 of the Landfarm Management Plan, which begins with the sentence "The Landfarm facility will only treat and/or store light PHC [petroleum hydrocarbon] contaminated soils that have been generated through mine related activities at the Meliadine Mine."
- c) Materials contaminated with heavy hydrocarbons cannot be treated in the facility, as is also stated in the Remedial Action Plan, attached in the Proponent responses document, as Appendix D.

For the second bullet of ECCC's recommendation, the Proponent's response did not address the intent of the comment: for the Proponent to consistently classify hydraulic oil as a contaminant requiring treatment off site, or as appropriate for treatment based on the Landfarm Management Plan.

ECCC Recommendation(s)

Based on the Proponent's response, ECCC recommends updating the Landfarm Management Plan to clarify that no materials containing heavy hydrocarbon contamination can be treated at the landfarm.

ECCC further recommends that the Proponent consistently classify hydraulic oil as a contaminant requiring treatment off site or as appropriate for treatment in the landfarm, in the Landfarm Management plan.

3. Closure of Landfarm and Drill Hole Sumps in Interim Closure and Reclamation Plan (IRCP)

Reference(s)

- Meliadine Mine, Landfarm Management Plan – 2BB-MEL Water Licence, December 2023, Version 5
- Meliadine Gold Mine, Water Management Plan, Water Licence No. 2BB-MEL, December 2023
- Meliadine Gold Project, Interim Reclamation and Closure Plan – 2BB-MEL, December 2023
- Agnico Eagle, Meliadine 2BB-MEL1424 Renewal, Responses to Comments, February 6, 2024

Comment

The Proponent's response only speaks to drill sumps and drill cuttings, and does not address ECCC's recommendation related to the landfarm,

ECCC's comment and recommendation did not dispute the proposed reclamation methods, but suggested that details on the reclamation methods included in the Landfarm and Water Management Plans should be integrated into the Interim Closure and Reclamation Plan to ensure closure objectives would be met consistently for all elements and infrastructure covered by the water licence.

ECCC Recommendation(s)

ECCC recommends the Interim Reclamation and Closure Plan be updated to include how the landfarm and drill sumps will be reclaimed, and how drill cuttings are disposed of.

ECCC acknowledges all other responses provided by the Proponent, and considers the corresponding comments resolved.

If you need more information, please contact Stephinie Mallon at Stephinie.Mallon@ec.gc.ca.

Sincerely,

[original signed by]

Stephinie Mallon
Acting Senior Environmental Assessment Officer

cc: Melissa Pinto, Acting Head, Environmental Assessment North (NT and NU)