

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 011/004
NWB File: 2AM-MRY1325



July 26, 2024

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-MRY1325 – Baffinland Iron Ore Mines Corporation – Mary River Mine – Type A Water Licence Renewal Application

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned renewal 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 information requests are provided to the NWB because this information is required for ECCC to be able to conduct a thorough technical review of the water licence renewal application, including understanding the potential Project effects and proposed mitigation.

1. Additional management plans

Reference(s)

- Supplementary Information Guideline Form – Appendix B of Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Knight Piésold Consulting; June 26, 2024)
 - Response to No. 1, Water Use



- Baffinland's Response to QIA's Comments on Draft Application Form – Appendix I of Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Knight Piésold Consulting; June 26, 2024)
 - Response to IR 1-1

Comment

Two plans mentioned in the application were not found in the application materials: the Long-Term Mine Site Water Management Plan (Supplementary Information Guideline Form) and the Snow Management Plan (Baffinland's Response to QIA's Comments). ECCC notes that these plans are not currently part of the water licence, nor are they included in the water licence application. However, their titles indicate that they address water management on site, would be relevant to the water licence, and should be reviewed with this application in order to understand how Project impacts to water are mitigated. It is not clear if the Proponent intends for these plans to form part of the licence, or what justifications they might have for not including them.

ECCC Recommendation(s)

ECCC requests the Proponent:

- provide the Long-Term Mine Site Water Management and Snow Management Plans for review; and
- clarify if these plans should form part of the water licence requirements, or justify why they should not.

2. Tote Road Monitoring Program

Reference(s)

- Surface Water, Aquatic Ecosystem Management Plan BAF-PH1-830-P16-0026 – Appendix L3 of Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Baffinland; March 31, 2021)
 - Section 9.4.2.3: Tote Road Monitoring Program (TRMP)

Comment

The Tote Road Monitoring Program (TRMP) is covered in a section of the Surface Water, Aquatic Ecosystem Management Plan. However, it is not clear if it is also a stand-alone document. The section includes the statement "*For additional details on the TRMP's sampling frequency, monitored parameters and response action frameworks and action levels refer to the Project's Roads Management Plan (BAF-PH1-830-P16-0023).*" Unfortunately, the Roads Management Plan was not provided for review.

The TRMP is described as "*developed to monitor the water quality of surface water flows at select water crossing (culverts, bridges) along the Tote Road*". The TRMP appears relevant to the water licence application.

ECCC Recommendation(s)

ECCC requests the Proponent clarify where the Tote Road Monitoring Program is described in its entirety, and provide it for review.

3. Criteria for project related total suspended solid impacts along the Tote Road

Reference(s)

- Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Knight Piésold Ltd.; June 26, 2024)
 - Section 5.3: Dust suppression water sources
- Canadian Water Quality Guidelines for the Protection of Aquatic Life, Total Particulate Matter (Canadian Council of Ministers of the Environment; 2002)

Comment

A project related change to total suspended solids (TSS) in watercourses along the Tote Road is defined in Section 5.3 of the application as double the Canadian Council of Ministers of the Environment (CCME) guideline for protection of aquatic life. For background concentrations below 250 mg/L, an increase greater than 50 mg/L in TSS is considered a project related impact, and for background TSS concentrations above 250 mg/L, an increase in concentration more than 20% of background is considered a project related impact. It is not clear how these criteria were developed. The suspended sediments CCME guidelines for protection of aquatic life during high flow are: *“Maximum increase of 25 mg/L from background levels at any time when background levels are between 25 and 250 mg/L. Should not increase more than 10% of background levels when background is >250 mg/L.”*

TSS may negatively impact fish both directly and indirectly.

ECCC Recommendation(s)

ECCC requests that the Proponent explain how the criteria for project related changes to TSS in watercourses along the Tote Road were developed, identify where they were discussed in the application, and specify if the criteria have previously been approved.

If you need more information, please contact Melissa Pinto at (867) 445-5384 or Melissa.Pinto@ec.gc.ca.

Sincerely,

olyslager, John

Digitally signed by: oyslager, John
DN: CN = oyslager, John C = CA O
= GC OU = EC-EC
Date: 2024.07.24 16:30:58 -06'00'

N. John Oyslager
A/Regional Director, EPOD-PNR

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