



Crown-Indigenous Relations
and Northern Affairs Canada

Relations Couronne-Autochtones
et Affaires du Nord Canada

Water Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

February 5, 2021

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
sent via email: licensing@nwb-oen.ca

Your file - Votre référence
2AM-WTP1830

Our file - Notre référence
CIDM#1292629

**Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on
Agnico Eagle Mines Limited's Design Report of IVR Attenuation Pond D-1
Dike for water licence #2AM-WTP1830 - Whale Tail Pit Project**

Dear Mr. Dwyer,

Thank you for your January 4, 2021 invitation for review comments on the above referenced report. The Water Resources Division of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the report and the results of our review are provided in the enclosed memorandum for the Nunavut Water Board's consideration.

Comments have been provided pursuant to CIRNAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. If there are any questions or concerns, please contact me at (867) 975-3876 or by e-mail at sarah.forte@canada.ca or Bridget Campbell at (867) 975-4282 and bridget.campbell@canada.ca.

Sincerely,

Sarah Forté
Water Management Specialist

Technical Review Memorandum

To: Richard Dwyer, Manager of Licensing, Nunavut Water Board

From: Sarah Forté, Water Management Specialist, Water Resources Division, CIRNAC

Date: February 5, 2021

Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on Agnico Eagle Mines Limited's Design Report of IVR Attenuation Pond D-1 Dike for water licence #2AM-WTP1830 - Whale Tail Pit Project

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

On January 4, 2021, the Nunavut Water Board provided notification of Agnico Eagle Mines Limited's submission of the Design Report of IVR Attenuation Pond D-1 Dike. It is part of the requirements of their Type A water licence 2AM-WTP1830 amendment #1 for the Whale Tail Pit Project, situated approximately 125 km north of Baker Lake, in the Kivalliq region of Nunavut.

As described in the Water Balance Update, the project includes the IVR attenuation pond to collect all site contact water, "*while discharging through the [Operational Water Treatment Plant] during open water conditions*". The D-1 Dike allows for the creation of this pond by containing water in an area occupied by Lake A-53.

B. RESULTS OF REVIEW

On behalf of Crown-Indigenous Relations and Northern Affairs (CIRNAC) Water Resources, the following comments and recommendations are provided for the Board's consideration:

1. Pond capacity

Comment

The pond storage curve in Figure 4-2 of the Design Report indicates the IVR pond capacity is 400 000m³ at the maximum operating level of 163.2 m. This does not match the storage capacity for the IVR Attenuation Pond used in the Water Balance Update, characterized as 534 819 m³ in Table 29.

An undersized storage pond would lead to difficulties in managing site water.

Recommendation

CIRNAC recommends the licensee clarify why they are proposing to construct a dike to create a pond with 25% less capacity than was previously planned, given that the larger capacity was used when calculating the site water balance.

2. Seasonal operating water levels

Comment

Operating water levels are discussed in section 4.3 of the Design Report, which states: *“An initial water elevation in the pond equal to the maximum operating level (MOL) of 163.2 m, based on the average water balance of the site (Golder, 2019). This maximum water level is the level acceptable during winter conditions only. During summer, the normal operating water level will be set below the El. 163.2 m.”*

If pond water levels are kept at maximum operating levels during the winter, it is not clear how melt water from freshet will be managed. Proper water management on site is critical and requires the definition of operating water levels that will allow for site contact water to be collected and discharged, with treatment if necessary, without emergency releases or overtopping the dike.

Operating water levels for the IVR D-1 Dike are not defined in the Water Management Plan, which is understandable given the design hadn't been completed prior the Plan's writing.

Recommendation

CIRNAC recommends the licensee define operating water levels for both the summer and fall/winter and clarify how they propose to manage freshet meltwater if the pond is at maximum operating level over winter. Additionally, CIRNAC recommends the licensee integrate the defined operating water levels in the next update to the Water Management Plan.

C. REFERENCE

Design Report of IVR Attenuation Pond D-1 Dike, SNC-Lavalin Inc., December 23, 2020.

Whale Tail Pit - Expansion Project 2019 Mean Annual Water Balance Update, Golder Associates Ltd., May 2019.

Whale Tail Pit Water Management Plan, Version 4 NWB, Agnico Eagle Meadowbank Division, May 2019.