January 19th, 2022

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

RE: 2AM-MEL1631 Design Reports

Dear Mr. Dwyer,

Agnico Eagle Mines Limited (Agnico Eagle) thanks the Nunavut Water Board (NWB) for the opportunity to address comments on *Waste Rock Storage Facility 3 (WRSF3) Design Report and Drawings (Version 2)* and *CP2, CP2 Thermal Berm, Channel 9, and Channel 10 Design Report* submitted by Agnico Eagle to the NWB November 17th, 2021.

Please find attached Agnico Eagle's answers to the recommendations and comments contained in the below documents, shared by the NWB on January 13th, 2022:

- *220106 2AM-MEL1631 Design Reports KIA Comments-IMLE.pdf*
- *211221 2AM-MEL1631 Design Reports CIRNA Comments-IMLE.pdf*
- *220106 2AM-MEL1631 Design Reports DFO Comments-IMLE.pdf*
- *220104 2AM-MEL1631 Design Reports ECCC Comments-IMLE.pdf*

Should you have any questions or require further information, please do not hesitate to contact us.

With our best regards,

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AGNICO EAGLE
MELIADINE

Kivalliq Inuit Association (KivIA)

KivIA Comment 1

Comment – Executive Summary

Bullet point number 4 states that "the water collected in CP2 will be actively pumped to CP1 during the open water season.

Question

If CP1 has no capacity to store the water from CP2 due to water quality exceedances for discharge where on the Meliadine mine site would the water from CP2 be stored?

Agnico Eagle Answer

The main attenuation pond CP1 is designed and sized to retain water from CP2. Based on modelling completed to support the 2AM-MEL1631 Water Licence Amendment and submitted with the 2020 Annual Report, it is not expected that CP1 discharge to Meliadine Lake over the life of mine will experience limitations due to water quality challenges.

In the unlikely event that water quality challenges are encountered, the situation will be handled according to the cause, risk, and expected duration of the challenge. The Adaptive Management Plan as submitted with the 2AM-MEL1631 Water Licence Amendment Application and the NIRB Waterline Application has been developed to allow a timely and structured response to such challenges.

KivIA Comment 2

Comment – Stability Analysis -section 4.7

The stability analysis of the CP6 thermal berm was used as a proxy for the CP2 thermal berm.

Question

The CP6 thermal berm is being constructed on terrane that has a much shallower slope than the CP2 thermal berm. Does this difference in terrane slope require a stand alone stability analysis of the CP2 thermal berm? Especially given that the CP2 pond and thermal berm are immediately up-slope of Meliadie Lake.

Agnico Eagle Answer

The subsurface conditions within the thermal CP2 berm footprint are similar to the CP6 thermal berm based on the drilled boreholes. The overburden thickness within the CP2 berm footprint is

slightly less than CP6 thermal berm. The size of the CP2 thermal berm is similar as CP6 thermal berm (both about maximum 5.0 m high with side slope of 2.5H:1V).

The overburden fill and foundation soils of the CP2 berm is expected to be in a frozen condition based on the monitoring data from the CP3, CP4, and CP6 thermal berms.

The original ground slope for the CP2 thermal berm is slightly steeper than the CP6 thermal berm (2.1% for the CP2 thermal berm, 1.4% for the CP6 thermal berm). Given the size of the structure and foundation conditions, the slightly steeper slope will not significantly impact the overall slope stability.

It is deemed that the findings from the CP6 thermal berm stability are valid to the CP2 thermal berm stability, a separate stability analysis for CP2 thermal berm was not required. This is also supported by the Design Engineer.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

CIRNAC Recommendation 1 – Signed and Stamped Issued for Construction (IFC)

Comment

CIRNAC understands that the attached engineering drawings to AEM's Design Reports submitted to the NWB for Water Licence 2AM-MEL1631, was for review by the NWB and intervening parties.

Recommendation

(R-01) CIRNAC recommends that AEM should provide signed and stamped issued for construction (IFC) drawings by a registered engineer, for:

a) Waste Rock Storage Facility 3 (WRSF3) Design Report and Drawings (Version 2) 6515-686-163-REP-002;

b) Design Report for CP2, CP2 Thermal Berm, Channel 9, and Channel 10.

Agnico Eagle Answer

Please see Appendix A of, Waste Rock Storage Facility 3 (WRSF3) Design Report and Drawings (Version 2) 6515-686-163-REP-002 for the signed and stamped IFC drawings.

Please see Appendix B of, Design Report for CP2, CP2 Thermal Berm, Channel 9, and Channel 10 for the requested signed and stamped IFC drawings.

CIRNAC Recommendation 2 – Slope Stability Analyses for WRSF3

Comment

CIRNAC is concerned that only one section of the WRSF3 was analyzed to verify the global slope stability. Although this section is located where the consequences of failure are higher, it does not represent the critical conditions of the site. Indeed, the thickness of the overburden is much more important at other locations (or close by) and, furthermore, the natural ground sloping downward from the toe of WRSF3 should be considered. Also, information on how the slope stability of WRSF3 would mitigate against potential ground water contamination should be considered, particularly in the portion of the permafrost areas where groundwater may be partially or wholly unfrozen due to freezing point depression.

Recommendation

(R-02) CIRNAC recommends that AEM should provide additional slope stability analyses to assure that the stability of WRSF3 is adequate everywhere.

Agnico Eagle Answer

The WRSF3 presented in the detailed design report (Version 2) is an expansion of the original approved WRSF3 in March 2020 with the footprint extending toward east. The geometry and overall slope along the north, south, west sides of WRSF3 are similar to the original approved WRSF3. Two sections along north and west sides of the original approved WRSF3 were evaluated for the slope stability analysis. More details on the stability analysis along these two sections can be found in Appendix C of Waste Rock Storage Facility (WRSF3) Design Report and Drawings 6515-686-163-REP-002 (March 2020). Given the similar geometry and overall slope along the north and west sides of WRSF3, the findings from the slope stability analysis along the two sections are still valid.

Comparisons on geotechnical conditions (Table 1 in Appendix C of Waste Rock Storage Facility (WRSF3) Design Report and Drawings (Version 2) 6515-686-163-REP-002, November 2021), consequence of failure, and original ground surface slope between the WRSF3 extension area and the original WRSF3 indicate that the selected section along east side of WRSF3 is critical for stability analysis. It is deemed that the stability of WRSF3 is adequate considering these three typical sections analyzed.

The freezing point depression was considered in the thermal analysis (Appendix B of Design Report) by assigning porewater salinity to the foundation soils, overburden waste, and waste rock. The thermal analysis results feed into the slope stability analysis for WRSF3 design update.

CIRNAC Recommendation 2 - Design Report for CP2, CP2 Thermal Berm, Channel 9 and Channel 10

Comment

CIRNAC has no comment on this report.

CIRNAC is satisfied with the information provided in the design report for CP2, CP2 thermal berm, channel 9 and channel 10.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for their review and for confirming their satisfaction with information provided in the Design Report for CP2, CP2 thermal berm, channel 9 and Channel 10.

Fisheries and Oceans Canada (DFO)

DFO Comment

Fisheries and Oceans Canada (DFO) has reviewed the November 2021 design report for the CP2, CP2 Thermal Berm, Channel 9, and Channel 10 and Waste Rock Storage Facility 3.

It is our understanding that the construction of the proposed structures will not occur in fish habitat but will change the local runoff patterns to direct meltwater and precipitation from existing mine infrastructure and planned Waste Rock Storage areas to mine wastewater treatment ponds as required in the June 2021 Type A Water Licence Amendment 2AM-MEL-1631 and subject to conditions of the Water Licence.

With regard to the Design Reports and Drawings (Version 2), DFO has no further comments.

Agnico Eagle Answer

Agnico Eagle thanks DFO for their review of the documents and confirms DFO's understanding of the construction of the proposed structures is correct.

Environment and Climate Change Canada (ECCC)

ECCC Comment

ECCC has reviewed the Meliadine Mine Design Reports for water licence 2AM-MEL1631 and has no comments.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for their review of the documents.