



Water Resources Division
Nunavut Regional Office
Iqaluit, NU X0A 0H0

Your file - Votre référence
2AM-WTP1826

August 09, 2019

Our file - Notre référence
CIDM# 1258908

Richard Dwyer
Manager of Licensing
Nunavut Water Board (NWB)
Gjoa Haven, NU X0E 1J0

Sent via email: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) review of Agnico Eagle Mines Limited (AEM) information request responses for water licence amendments of 2AM-MEA1526, 2AM-WTP1826, and 2BB-MEA1828 – Whale Tail Expansion project.

Dear Mr. Dwyer,

Thank you for the email notice, received on August 2, 2019, regarding the Whale Tail Expansion application for water licence amendments of 2AM-MEA1526, 2AM-WTP1826, and 2BB-MEA1828. CIRNAC reviewed AEM's information request (IR) responses and provided comment pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

CIRNAC has reviewed the additional information provided and determined that AEM provided adequate information to address four out of five IRs (#1, #2, #3 and #5). Although adequate response was not provided for IR #4, CIRNAC recommends that this information can be provided prior to the Nunavut Water Board technical review phase.

CIRNAC's IR review focused exclusively on sufficiency of information to assess potential environmental risks and mitigation strategies of the proposed project. Technical concerns will be commented on during the technical review phase.

If you have any questions or require further information with respect to this matter, contact Godwin Okonkwo (867) 975-4550 or email godwin.okonkwo@canada.ca, or Michelle Blade at (867) 975-3877 or michelle.blade@canada.ca.

Regards,

Godwin Okonkwo
Manager Water Resources

1. Background

1.1 Proposed Amendment

Agnico Eagle Mine (AEM) has applied to amend their current 2AM-MEA1526, 2AM-WTP1826, and 2BB-MEA1828 Water Licenses to expand the Whale Tail Pit Project. The expansion of the existing Whale Tail site is to include a second satellite pit (IVR), as well as possible underground mining. Some facilities currently in place are proposed for expansion, and additional facilities will be constructed. The scope of the amendment to the project includes:

- Extension of Life of Mine by additional four years;
- Mining of an additional 15 million tonnes of ore;
- Production of an additional 120 million tonnes of waste rock;
- Widening of the haul road from 9.5 metres wide to 15 metres;
- The expansion of the current open pit;
- Mining of an additional open pit;
- Underground mining (long hole mining) below both open pits;
- Three additional water management ponds;
- An expansion of the current Whale Tail Waste Rock Storage Facilities (WRSF), and the addition of a new WRSF for the IVR Pit; and
- Installation of a larger camp to accommodate 390 persons and expansion of relevant camp infrastructure.

1.2 Completeness Review Scope

The objective of the Completeness Review is to confirm that information required for the licence application and the associated management plans are sufficient. Within this context, the scope of the completeness review includes the following topics:

- Land contamination that may affect water;
- Surface water quality;
- Surface water quantity;
- Groundwater;
- Permafrost;
- Waste management;
- Tailings Management; and
- Closure Planning.

Project components, activities, and plans that are associated with CIRNAC's areas of interest include, but are not limited to the following:

- Site water management and treatment (effluent, run-off, active-layer flow management, water balance, spring freshet management);

- Infrastructure and engineering related to mine works (underground mine activity, water diversion structures, dams, tailings impoundments, waste rock storage, quarries, waste disposal sites, airstrips, roads, etc.);
- Transportation and transportation infrastructure;
- Mine tailings and waste rock management (i.e. acid rock drainage / metal leaching);
- Hazardous material management;
- Accidents and malfunctions; and
- Environmental management and protection plans.

1.3 Results of Completeness Review

Following the completeness review, CIRNAC found that the application was detailed. CIRNAC had five information requests listed below with corresponding topic:

- CIRNAC IR #1 – WRSF Covers;
- CIRNAC IR #2 – Effluent Mixing Zone Delineation;
- CIRNAC IR #3 – WRSF Interflow and Temporal Scope of Assessment;
- CIRNAC IR #4 – Prior Management Plan Revisions; and
- CIRNAC IR #5 – Alternative Discharge Locations.

2. Adequacy of Proponent responses to information requests

2.1 Summary of Completeness Review Comments

On August 1, 2019, AEM provided additional information to the NWB. CIRNAC has reviewed the additional information provided and determined that AEM provided adequate information to address four out of five IRs (#1, #2, #3 and #5). Although an adequate response was not provided for IR #4, it is CIRNAC's opinion that the information gap should not prevent the project from proceeding to the Nunavut Water Board technical review phase.

Summary of Completeness Review Comments

CIRNAC IR No. and Topic	Information Request (IR)	Assessment of Status
#1 WRSF Covers.	CIRNAC recommends that AEM provide the report of revised WRSF thermal modelling prepared by O'Kane Consultants.	Resolved for IR stage. AEM provided the requested document.
#2 Effluent Mixing Zone Delineation.	<p>CIRNAC recommends that AEM should provide information for effluent modeling calculations for future scenarios of maximum concentrations of arsenic and phosphorous within the applicable receivers. The calculations should be performed for both Mammoth Lake and Whale Tail Lake (south basin). For each receiver and project stage (i.e., operations, closure and post-closure) the revised modeling calculations should define the required size of the mixing zones for active discharges (i.e., via a diffuser) and passive discharges (i.e., post-closure WRSF seepage).</p> <p>CIRNAC notes that AEM has already committed to providing similar (but not identical) information as part of the NIRB process by 13 July 2019. However, the information requested above is also required for consideration during the NWB process and should therefore be filed to the public registry.</p>	<p>Resolved for IR stage.</p> <p>In most respects, AEM provided the requested information. The main exception relates to the delineation of mixing zone sizes from passive WRSF discharges during the post-closure phase. However, AEM's response to CIRNAC IR #3 presents other information that indirectly addresses that aspect of the request.</p>
#3 WRSF Interflow and Temporal Scope of Assessment.	<p>CIRNAC recommends that AEM extend the temporal scope of its water quality modeling to ensure that WRSF interflow is included in its predictions of surface water quality. The revised modeling should evaluate the water quality impacts of interflow under two scenarios:</p> <p>Scenario 1: a cover constructed exclusively of waste rock with low metal leaching potential; and</p>	<p>Resolved for IR stage.</p> <p>AEM provided the requested information.</p>

	Scenario 2: a cover that is "contaminated" with 1% waste rock that has elevated metal leaching potential (e.g., north komatiite formation). ¹	
#4 Prior Management Plan Revisions.	CIRNAC recommends that AEM provide a table summarizing if and how the Department's October, 2018 input on prior versions of the Management Plans for the Approved Project have been incorporated into the revised submissions. A separate response should be provided for each of CIRNAC's comments and recommendations within the table. This information will be used to confirm the adequacy of the revised Management Plans to mitigate potential environmental impacts associated with the Expansion Project.	<p>Unresolved. AEM indicated that it will not be effective to provide this table, so did not provide the requested information.</p> <p>CIRNAC conducted detailed reviews of the original Whale Tail Pit project management plans and submitted detailed review comments and recommendations to the NWB. Those plans with outstanding unresolved CIRNAC comments include, but are not limited to:</p> <ol style="list-style-type: none"> 1. Water Quality and Flow Monitoring Plan; 2. Water Management Plan; 3. Waste Rock Management Plan; 4. Operation ARD-ML Sampling and Testing Plan; and 5. Groundwater Monitoring Plan. <p>CIRNAC requests AEM provide a table summarizing how CIRNAC's outstanding comments for the original Whale Tail Pit project management plans have been incorporated in the updated management plans submitted with the Whale Tail Expansion application.</p> <p>This information would be useful for the Nunavut Water Board technical review phase of the Whale Tail Expansion application. CIRNAC recommends that this information can be provided prior to the technical review phase.</p>

¹ CIRNAC acknowledges and appreciates that AEM has already assessed the impact of 1% cover contamination in response to NIRB Commitment #28 for the Expansion Project. However, the temporal scope of that assessment was insufficient to capture the potential effects of interflow from the WRSFs.

<p>#5</p> <p>Alternative discharge locations.</p>	<p>CIRNAC recommends that;</p> <ol style="list-style-type: none"> 1. AEM should provide information that shows evidence of assessment of the referenced discharge locations. 2. AEM should provide information that demonstrates an assessment of potential impacts to the surface water receivers was conducted. 	<p>Resolved for IR stage.</p> <p>AEM provided the requested information .</p>
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