



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

October 21, 2015

AANDC reference
CIDM# 954765

NWB reference
#2BB-MEL1424

Robin Ikkutisluk
Licencing Administrator
Nunavut Water Board
Gjoa Haven, NU, X0E 1J0

**Re: Aboriginal Affairs and Northern Development's (AANDC) Review of Agnico
Eagle Mine Ltd.'s Amendment Application for Type B Water Licence 2BB-MEL1424**

Dear Ms. Ikkutisluk,

Thank you for your email on September 21, 2015, concerning the above mentioned water licence amendment application process.

The Water Resources Division of AANDC reviewed the application 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 the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-3876 or email at sarah.forte@aandc-aadnc.gc.ca for further comments or any questions.

Sincerely,

Sarah Forté
Water Management Coordinator

c.c.: Andrew Keim, Acting Manager Water Resources, Nunavut Regional Office
(NRO), AANDC
Erik Allain, Manager of Field Operations, NRO, AANDC
Ian Parsons, Regional Coordinator, NRO, AANDC
Christine Wilson, Water Resource Officer, NRO, AANDC

Memorandum

To: Robin Ikkutisluk, Licensing Administrator, Nunavut Water Board

From: Sarah Forté, Water Management Coordinator, Water Resources Division,
AANDC

Date: October 21, 2015

**Re: AANDC's Review of Agnico Eagle Mine Ltd.'s Amendment Application for
Type B Water Licence 2BB- MEL1424**

Applicant:	Agnico Eagle Mines Ltd.
Project:	Meliadine Advanced Exploration Project
Region:	Kivalliq

A. BACKGROUND

On September 21, 2015 the Nunavut Water Board (NWB or Board) provided notification to interested parties that Agnico Eagle Mines Limited (Agnico Eagle or the licensee) had completed submission of an amendment application for their Type "B" water licence # 2BB-MEL1424.

The licence, renewed in 2014, is for advanced mineral exploration at the Meliadine site and allows for use of 290 m³ of water per day as well as disposal of waste. The activities covered include several pits, underground works, waste rock storage, a landfill and landfarm.

The amendment application requests three changes:

- Increasing water use from 290 m³/day to 299 m³/day;
- Removing water allocations between camp and exploration uses; and
- Installation of two BIONEST systems for wastewater treatment.

Interested parties were asked to review the information and provide comments by October 21, 2015

B. RESULTS OF REVIEW

The following comments and recommendations are provided for the consideration of the Board:

1. Increased camp size

The cover letter states the camp size as *“being 120- 250 persons in 2015 dependant on activities and time of year”*. However in the amendment application, the licensee states: *“From experience, we have learned that two BIOdisks can only adequately treat wastewater for approximately 125 workers. With double this number of workers possible in camp in the near future, wastewater treatment capacity needs to double.”*

These statements appear contradictory.

Recommendation:

Aboriginal Affairs and Northern Development (AANDC) recommends that the licensee be requested to clarify several questions regarding camp size:

- i. Up to how many workers are on site presently?
- ii. If the camp size is only for 125 workers presently and will be increased in the future,
 - a) why is this doubling of the workforce necessary since the project scope for this licence is unchanged?
 - b) why does this amendment request not include more infrastructure to house these workers?
- iii. If the camp size presently houses 250 workers, what is being done to treat the wastewater since the system in place is only adequate for 125 workers?

2. Increasing water use and removing water allocation restrictions

In order to meet increased camp demands, the licensee is requesting authorization to increase water use from 290 m³/day to 299 m³/day. They are also requesting that the water allocation between camp and exploration purposes, which is presently 45 and 245 m³/day respectively, be removed so that water can be used where it is needed.

The licensee has committed to continuing to report the water use per activity. In their 2014 annual report, the highest water use identified is in the month of June, with a total of 97.2 m³/day, 39 m³ of which was used for camp purposes. The 2013 report has higher water uses reported for the spring months, with a total of 212.1 m³/day in April, 17.5 m³ of which was used for camp purposes.

Recommendation:

AANDC recommends that the licensee be asked to justify their need for more water. Based on their last two annual reports, the licensee was 78 m³/day below their licenced water allowance in the month they used the most water.

AANDC has no issue with the redistribution of daily water consumption allowances. Compliance with existing terms and conditions (Part C, Items 3 and 4 of the licence) should prevent any drawdown of source water bodies.

3. Installation of two BIONEST systems for wastewater treatment

The licensee is requesting permission to install two BIONEST Kodiak systems in parallel with the two BIODisk systems already in place to treat wastewater in order to meet the demands of an expanded camp population.

According to the figure provided in the cover letter for Amendment #7, the effluent will be discharged directly after treatment in the two BIONEST Kodiak systems.

AANDC has concerns about the proposed installation because it mirrors Agnico Eagle's installation at the Amaruq camp in May 2015 where the effluent did not meet discharge criteria. The effluent quality limits in the licence to be amended are the same as at Amaruq.

According to the Amaruq Exploration Project Waste Water Treatment Plant Situation Report dated August 26, 2015, modifications to the wastewater treatment system had to be made for the effluent to meet discharge criteria. According to Figure 4 in the report, after passing through the BIONEST units, effluent also passed through a BIONEST ultraviolet (UV) unit, a 10 µm polishing filter and an additional UV system before being discharged to the environment.

The first UV unit in the Amaruq camp system may already be integrated in the system presented in Figure 7 of the cover letter for the Meliadine camp as the manual provided indicates there is a UV unit in the BIONEST system.

Recommendation:

AANDC recommends that the licensee be required to demonstrate how a system that was insufficient at the Amaruq exploration camp can work well at the Meliadine exploration camp, specifically why a polishing filter and additional UV treatment would not be required.

Additionally, the licensee should be requested to provide an updated Used Water Management Plan. Changing the title of this plan from "Used Water" to "Wastewater" would help clarify its purpose and follow the terminology used in the licence.

4. Dewatering bay of Lake A6

Point 22 of the supplementary questionnaire for advanced exploration mentions dewatering of a bay of Lake A6: *“The F Zone deposit dips north with a strike length of approximately 1.5 kilometers. It is located approximately 3 kilometres southeast of the Tiriganiaq. Several potential open pits, 50 to 100 metres apart, have been defined. In order to excavate the westernmost pit at F Zone, a small bay of Lake A6 would be closed by a 250- metre long dike and subsequently dewatered.”*

The amendment application does not mention this anywhere else or explicitly request permission for this activity.

Recommendation:

AANDC recommends that the licensee be requested to specify if they intend to carry out the dyke-building and dewatering activity under this licence. If this is the case, more information is necessary.

C. CONCLUSION

AANDC considers that significant questions are not answered by the application and should be addressed before the issuance of an amended licence. They are principally to do with camp size and water use.