July 5th, 2017

Karen Kharatyan
A/Manager of Licensing
Nunavut Water Board
P.O Box 119
Gjoa Haven, NU X0B 1J0

Re: Agnico Eagle Mines – Meliadine Division Response to EWTP OMM Recommendations

Dear Mr. Kharatyan,

As requested, the following information and comments are intended to address the comments outlined in the below report:

- KIA – June 26, 2017, *Review of Water License 2AM-MEL1631, Part F Item 9 – Operation and Maintenance Manual for the Effluent Water Treatment Plant*

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

Regards,

Manon Turmel
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819-759-3555 x 8136
Environmental Compliance Counselor

Comment 1 :
Section 2.1.2 (page12, paragraph 2): What will be the volume of solids flushed to CP1 in the first season prior to the mill beginning operation? Will the volume of solids be reported on an annual basis?

Agnico Eagle Mines response:

Based on design assumptions, if feeding the plant at 12,000 m^3/day of influent (CP1) water at 500 ppm of TSS, there will be a stream of 600 m^3/day (25 m^3/hr) at 1% solid returning to CP1. This will all be validated when we start operation with the real volumes and CP1 water quality. It is not planned to report on the volume of solids returned to CP1.

Comment 2 :
Section 2.1.6 (page13, paragraph 1): What value is considered "high-high turbidity" which would trigger an alarm?

Agnico Eagle Mines response:

The High - High turbidity alarm value is a setting that will be determined during the commissioning phase and will depend on the quality of the water to be treated.

Comment 3 :
Section 2.1.6 (page13, paragraph 4): Will the treatment plant performance be reported annually in relation to the formula based on the laboratory testing? Is there the possibility of comparing this plant's performance to similar plants as a way to improve the performance (ie. the Meadowbank effluent water treatment plant)?

Agnico Eagle Mines response:

It is not planned to report plant performance vs laboratory testing formula. The Laboratory test formula is helpful to guide initial dosage and operation but adjustments are required to account for multiple variables of the full scale operation and environment.

Initially, the focus will be put on the plant performance within the site specific context of Meliadine and respecting the effluent water quality criteria in the context of the Meliadine site. With time and experience, operation performance may be improved based on the results obtained and sharing practices with Meadowbank.

Comment 4 :
Section 3.1 (page14, paragraph 3): Is there the possibility of comparing the preventative maintenance program to similar plants as a way to improve the preventative maintenance (ie. the Meadowbank effluent water treatment plant)?

Agnico Eagle Mines response:

Our preventive maintenance program will be primarily based on Manufacturer's recommendation initially. With time and experience, the maintenance program may be improved based on the results obtained at Meliadine and sharing practices with Meadowbank.

Comment 5 :
Section 3.2 (page14, paragraph 3): Is there the possibility of comparing the preventative maintenance program to similar plants as a way to improve the preventative maintenance (ie. the Meadowbank effluent water treatment plant)?

Agnico Eagle Mines response:

Our preventive maintenance program will be primarily based on Manufacturer's recommendation initially. With time and experience, the maintenance program may be improved based on the results obtained at Meliadine and sharing practices with Meadowbank.

Comment 6 :
Section 3.3 (page14, paragraphs 1, 2 and 3): Is there a back-up power source for the alarms if the main power system is disrupted?

Agnico Eagle Mines response:

Yes, the system is equipped with an uninterruptable power supply for Instrumentation and Controls.

Comment 7 :
Section 4.2 (page17, paragraph 1): Are all spills reported to the Nunavut Spill Line?

Agnico Eagle Mines response:

In accordance with the Spill Contingency Plan prepared for the Meliadine project and approved by regulators, all spills into a waterbody or onto ice are reported immediately to

the Nunavut Spill Line among others. For spills occurring away from a waterbody, a report is provided to the Nunavut Spill Line if quantities are above the threshold as specified in the "Nunavut Environmental Protection Act. Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93".

Comment 8 :

Section 4.3 (page17, paragraphs 1, 2 and 3): What is the maximum capacity of CP-1 to hold the flow from the effluent water treatment plant during a plant malfunction? Based on the daily operation of the plant what length of time would it take to reach the maximum capacity of CP-1?

Agnico Eagle Mines response:

The maximum capacity of CP1 is 572,000 m^3. The length of time to reach the maximum capacity depends on various parameters including precipitation and snow melt that would define a dry/wet or average year. Monthly CP1 volumes corresponding to wet and average years are presented in Table 1 below. For example this year the water in pond CP1 was at approximately 200,000 m^3 early June. The duration of the malfunction would need to be considered however the plan is to draw down the water prior to the next year's freshet. Based on the current situation, there is additional capacity for two extra freshets. However, estimating every year would be difficult and based on our operational experience of the Actiflo system at Meadowbank, the downtime for these units are highly unlikely.

As a note, the CP1 water balance is completed and updated taking into consideration the available data on site. Adequate freeboard in CP1 will be maintained by ensuring good water management, based on the water balance and water management plan. Based on the water quality model performed for CP1, discharge of CP1 to Meliadine Lake (MEL 14) is expected to occur annually and to provide sufficient capacity within CP1.

Table 1. CP1 modeled water volumes for average and wet years

	Average year (m^3)	***Wet year (m^3)***
January	43,403	43,403
February	45,455	45,455
March	49,560	49,560
April	54,690	54,690

May	59,390	59,390
June	293,747	442,573
July	319,617	553,735
August	381,704	696,100
September	278,225	516,261
October	154,447	263,406
November	160,563	273,051
December	165,035	278,225