AGNICO EAGLE

September 21st, 2018

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

Re: Agnico Eagle Mines – Meadowbank Division Responses to Freshwater Intake Station Design Report Additional Comments

Dear Mr. Dwyer,

As requested, the following information and comments are intended to address the comments made in the below letter:

- DFO – September 4, 2018, 2AM-WTP1826 for Agnico Eagle Mines Ltd.'s Design Report Fresh Water Intake - AEM's response to DFO-FPP comments

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

Best regards,

Manon Turmel
manon.turmel@agnicoeagle.com
819-759-3555 x 4608172
Environmental Compliance Counselor

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1) **Fisheries and Oceans Canada (DFO)**

Comment 1

Comment:
DFO-FPP notes that AEM has indicated the use DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines (hereafter refers to Guideline) in their calculations of intake fish screen mesh size in an effort to avoid the entrainment and impingement of fishes. As a result AEM has proposed the use of a fish screen mesh size of 12.5mm (0.5 inches). However, DFO-FPP notes that according to the Guideline, a maximum screen opening (mesh size) of 2.54 mm (0.10 inches) is recommended for the protection of freshwater fish with a minimum fork length of 25 mm. This mesh size is recommended since most eggs and fish larvae remain in the bottom substrates until they reach the fry stage (i.e 25 mm fork lengths). This may also be protective of smaller species such as nine-spine stickleback. As such, DFO-FPP notes that AEM's proposed use of a larger screen opening of 12.5 mm (0.5 inch) may not be sufficiently protective of fishes with fork lengths as small 25 mm. DFO-FPP also notes that AEM has not provided sufficient justification or rationale for their proposed use (or calculation) of the larger intake fish screen with a mesh size of 12.5 mm.

DFO-FPP refers AEM to Section 3 "Information Requirements for Evaluation of Intake Screens" and Appendix A "Information Requirements" of the Guideline (pages 3 & 21-22 respectively), which specify information requirements for DFO to facilitate evaluation of an end-of-pipe intake screen design intended for fish protection. DFO-FPP notes that the 'information requirements' of "fish presence, species, and possible fish size or fish habitat conditions at the project site" and "screen maintenance, cleaning" are notably missing from information provided by AEM.

Request:
CIRNAC recommends the Licensee identify the erosion control measures that will be used prior to and during Construction both on land and in Nemo Lake.

DFO therefore requests that AEM provide the following information:

- rationale for the use of the proposed fish screen with a mesh size opening larger than the suggested fish screen mesh size as recommended in the DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines;
- fish species presence, and estimated fish sizes or fish habitat conditions at the project site;
- rate or ranges of rates of withdrawal from the watercourse
- screen (mesh) material, method of installation and supporting structures (i.e., is the intake being elevated?)
- proposed screen/intake maintenance, cleaning, or other special requirements to ensure the intake and fish screen are functioning as intended.

Agnico Eagle Mines response:

Please find below responses to DFO's requests.

- Rationale for the use of the proposed fish screen with a mesh size opening larger than the suggested fish screen mesh size as recommended in the DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

  Agnico Eagle agrees with DFO's recommendation and will use a fish screen with a mesh size opening of 0.1 inches (2.54 mm).

- Fish species presence, and estimated fish sizes or fish habitat conditions at the project site.

  As per Whale Tail Final Environmental Impact Statement (June 2016), lake trout only were caught in Nemo Lake (n=22) during baseline studies. The smaller and larger fish caught were respectively 395 mm and 879 mm with an average size of 596 mm.

- Rate or ranges of rates of withdrawal from the watercourse

  Agnico Eagle will withdraw water throughout the year to mainly feed the camp with potable water but also to fill up the fire protection camp and apply dust suppressant on roads when needed. Withdrawal will occur at an average rate of 72 m^3/day. Nevertheless, as per Type A Water Licence 2AM-WTP1826 Part E Item 1, Agnico Eagle is allowed to withdraw a maximum of 191,750 m^3 of water per year, which corresponds to 525 m^3/day. This amount has been approved by the Nunavut Water Board and is reflective of Nemo Lake water capacity (8,360,000 m^3). Impact to fish and fish habitat are unlikely.

- Screen (mesh) material, method of installation and supporting structures (i.e., is the intake being elevated?)

  Screen mesh material will be standard steel 44W painted to resist corrosion. The structure will ensure resistance to deformation.

  The intake box will be placed in water at least 30 cm from the bottom of the lake to prevent sediment pumping. Metallic support will be placed below the box to ensure that this criteria is respected.

The box and pipe will be assembled from shore and pulled on the water using a combination of helicopter and boat. It will then be gradually sunk to the bottom using cement blocks. These will also ensure that the pipe remains on the bottom of the lake. The initial design, approved by regulators, involved construction of a jetty. Agnico Eagle is of the opinion that the current construction method is protective of fish and fish habitat.

- Proposed screen/intake maintenance, cleaning, or other special requirements to ensure the intake and fish screen are functioning as intended.

  Pump suction pressure will be measured to assess the need for screen cleaning. If cleaning is required, the pumping bow will be removed from the water. Cleaning will occur on shore in a dedicated area preventing erosion and sediment discharge to the lake. When fish screens are removed during cleaning and inspection events, pumps will be shut down. Finally, the water intake will be located 4 m below water level to ensure the system does not freeze during wintertime.

DFO would also like to request that AEM to adhere to the timing windows specify for Nunavut when extracting water to avoid impact to fish and fish habitat in the lake during sensitive spawning time. For more information on timing windows for Nunavut, please visit http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/nu-eng.html.

Agnico Eagle Mines response:

Agnico Eagle is of the opinion that timing windows are for construction activities. It is not feasible for Agnico Eagle to shut down the water intake during most of the year. This plan, using Nemo Lake as a water intake for domestic and camp purposes, was communicated to the Nunavut Water Board, the Nunavut Impact Review Board and intervenors during Environmental Impact Assessment and Water Licencing processes. Since then, Agnico Eagle has received its Project Certificate and Water Licence. Morever, the water intake will be located in an area not sensitive for fish spawning and Agnico Eagle will comply with the DFO Freshwater Intake Screen Guideline.