October 20th, 2016

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 Berm 3 and Channel 5 Final Design and Construction Drawings Recommendations

Dear Mr. Kharatyan,

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

- INAC – October 7, 2016, 2AM-MEL1631 – *Indigenous and Northern Affairs Canada's Review of Final Construction Drawing for Berm 3 and Channel 5, Agnico Eagle Mines Limited's Meliadine Gold Project, Part D, Item 1 and 2 of Type 'A' Water Licence No. 2AM-MEL1631*

- KIA – October 7, 2016, *Review of Water License 2AM-MEL1631, Items 1 & 2 – Submission of Final Design and Construction Diagrams for Berm 3 and Channel 5*

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

Regards,

Manon Turmel
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819-759-3700 x 8025
Environmental Compliance Counselor

CC : Jamie Quesnel – Agnico Eagle

Indigenous and Northern Affairs Canada

Sources :

a. Tetra Tech EBA, Design Report for Berm 3 and Channel 5, Meliadine Gold Project, NU, September 20, 2016
b. Golder Associates Ltd., D 6-3 Geochemical Characterization of Waste Rock, Ore, Tailings and Overburden, Meliadine Gold Project, Nunavut, A Technical Report submitted to Agnico Eagle Mines, April 2014

Rationale:

TetraTech EBA, Design Report for Berm 3 and Channel 5, Meliadine Gold Project, NU, September 20, 2016

In Section 3.5, the Licensee states that,

> 'A baseline geochemical characterization program for the project was initiated in 2008 and consisted of static and kinetic testing methods to assess the chemical composition of the mine waste and overburden, its potential to generate acid rock drainage (ARD) and its potential for metal leaching (ML) upon exposure to ambient conditions. Golder (2012c) documented the waste geochemical characterization programs carried out from 1998 to 2011 for the project. The key findings of the study included the following:
> - The waste rock from the Tiriganiaq deposit area is considered to be non-potentially acid generating (NPAG) and has a low potential for ML. Kinetic tests at various scales indicate that drainage water quality will meet MMER monthly mean effluent limits.
> - The overburden at the site will be NPAG, and that leachate concentrations are generally lower than waste rock and will meet MMER monthly mean effluent limits. Waste rock and overburden have compatible geochemical characteristics such that these materials can be managed together in the same disposal facilities.
>
> Therefore, the waste rock from the mine development, fill materials sourced from the rock, and overburden materials will be NPAG and have low potential of ML.'

In Section 6.2.1, the Licensee states that,

'The material shall be sourced from hard, durable, non-acid generating Rock'.

Golder Associates Ltd., D 6-3 Geochemical Characterization of Waste Rock, Ore, Tailings and Overburden, Meliadine Gold Project, Nunavut, A Technical Report submitted to Agnico Eagle Mines, April 2014

Section 7.0 states that,

'The mine waste management considerations are subject to re-evaluation upon completion of additional studies, further sampling, and/or modification/finalization of the mining plan and mine waste management plans.'

Section 8.0 states that,

'Upon modification or finalization of the mine plan, the geochemical characterization program results should be re-evaluated according to the chosen mining technique, development sequence and new pit outlines.'

INAC is concerned that the geochemical characterization program (1998- 2011) needs to be re-evaluated to fully characterize the mine waste in light of Golder's recommendations. The proposed construction materials (run-of mine rock fill) need geochemical characterization (acid generating and metal leaching potential) in light of water licence condition, i.e., Water Licence 2AM-MEL1631, Part D, 2(c).

Recommendation: In order to demonstrate that the run-of-mine rock fill is non-potentially acid generating (NPAG) and non-metal Leaching (ML), the Licensee should provide geochemical analysis of the materials (waste rock and fill) for the proposed construction.

> ***Agnico Eagle Mines response:***
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> *With respect to excavations and material generated in the proposed Channel 5 / Berm 3 area, the shallow bedrock in this area is expected to be non-PAG and report a low potential for metal leaching. This is based on six (6) shallow (<20 metres depth) samples from the gabbro and greywacke/siltstone rock types, collected as part of the geochemical characterization program for Tiriganiaq (Golder, 2014).*
>
> *Construction material for the proposed Berm 3 will be sourced from run-of-mine waste rock and from the excavation of the saline water storage pond. Static and on-going kinetic testing of three run-of-mine waste rock samples demonstrate that this material is non-PAG and has a low potential for metal leaching.*

Kivalliq Inuit Association

Comment 1: The areas with 1 to 3 metre active layers tend to be from the tops of eskers which are dominantly sand sand size material and well drained with much less ice content. Whereas, the "till material' tends to be from lower elevations with active layers of centimeters to 10's of centimeters and more ice content. Can the proponent please provide an estimate of how much of the ice free sand material and ice bearing till material will be used during the construction of Berm 3.

Agnico Eagle Mines response:

The Selected Unfrozen Till Fill for Berm3 construction will be primarily sourced from the unfrozen till material that had been excavated from the active layer over the footprint of the saline water storage pond during the pond construction early this fall. The unfrozen till material is currently stockpiled at the site. The selected unfrozen till material used for construction of Berm3 should have a fines (<0.075 mm in size) content of 20% to 60% by weight to have a relatively low hydraulic conductivity. It is not planned to use esker sand and gravel for the Berm3 construction.

Comment 2: Can the proponent comment on the difference in particle size for each of these materials and how this will ensure the integrity of Berms 3 over the berms operation life.

Agnico Eagle Mines response:

Two types of the fill materials will be used for Berm3 construction – Run-of-Mine Rockfill (as berm slope erosion protection) and Selected Unfrozen Till Fill (as berm core).

The Run-of-Mine Rockfill will be primarily sourced from the waste rock from underground mine development. The run-of-mine rockfill can have a wide variation in gradation, with a maximum particle size of 600 mm. This material will mainly serve as surface erosion protection materials for Berm3 slopes.

As mentioned above, the Selected Unfrozen Till Fill for Berm3 construction will be primarily sourced from the unfrozen till material that had been excavated from the active layer over the footprint of the saline water storage pond during the pond construction early this fall. The selected unfrozen till material used for construction of Berm3 should have a fines (<0.075 mm in size) content of 20% to 60% by weight to have a relatively low hydraulic conductivity. The material can have a wide variation in gradation with a maximum particle size of 300 mm. The till core will serve as a water retaining element with relatively low hydraulic conductivity to control water seepage when the water is temporarily present during periods when the CP5 water elevation is high or when a rain (or spring thaw) event occurs.

Comment 3: Can the proponent comment on the difference in ice content for each of these materials and how this will impact on the integrity of Berms 3 over the berms operation life.

Agnico Eagle Mines response:

As mentioned above, the Run-of-Mine Rockfill for Berm3 will be sourced from the waste rock from underground mine development and would have no or negligible ice content.

The design intent of Berm3 is that the Selected Unfrozen Till Fill will be unfrozen during placement and compaction; therefore, it is expected that the Till fill will have no or little ice content during placement.

Comment 4: Can the proponent comment on whether field compaction tests will be completed as part of the QA/QC be completed during the construction of Berm 3.

Agnico Eagle Mines response:

A field QA/QC program will be carried out during the Berm3 construction. The program will include field compaction tests to inspect the till density after compaction.

Comment 5: Can the proponent comment on what type and frequency of field compaction tests will be completed and what will the frequency be.

Agnico Eagle Mines response:

Depending on the soil and field conditions, field density testing may include proof rolling or in-situ density testing using nuclear densometer or other methods (sand-cone method). The minimum frequency of the testing will be one per lift of the Selected Unfrozen Till Fill. The testing frequency will be adjusted by the QA/QC team based on the field conditions and testing results.

Comment 6: Can the proponent comment on why field compaction tests may not be completed.

Agnico Eagle Mines response:

As mentioned above, field compaction tests will be carried out for the Selected Unfrozen Till Fill. However, field compaction tests will not be conducted on the Run-of-Mine Rockfill to be placed on the berm slopes due to its larger particle sizes and relatively thin layer over a slope.