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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYIT
OFFICE DES EAUX DU NUNAVUT

File No.: 2BW-MEL----

October 20, 2011

Eric M. Lamontagne
Meliadine Gold Project
Agnico-Eagle Mines Ltd.
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And

John Witteman
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Subject: Water Licence Application for the Phase 1 Meliadine All Weather Access Road (AWAR): Agnico-Eagle Mines Limited (AEM)

Dear Mr. Lamontagne and Mr. Witteman:

The Nunavut Water Board ("NWB" or "Board") received on October 6, 2011, from Agnico-Eagle Mines Limited (AEM), a Water Licence application package for the Phase 1 Meliadine All Weather Access Road (AWAR) consisting of the following documents:

- Water Licence Application;
- Culvert Bridge Questionnaire;
- Cover Letter to NWB;
- Cover letter to the Nunavut Impact Review Board (NIRB);
- Non technical English and Inuktitut Summary;
- Phase 1 – Meliadine All-Weather Access Road Project Description and Environmental Assessment; with
 - Appendix A Operations & Maintenance Manual for the Phase 1 All-Weather Access Road;
 - Appendix B Application for Approval for the Proposed Meliadine West-All Weather Access Road, Various Crossings, Nunavut;
 - Appendix C Stream Crossing Summary Sheets;
 - Appendix D DFO - Part 4 Screening of Agnico-Eagle Mines Ltd. All-Weather Road;
 - Appendix E-1 Terrain Unit Descriptions and Interpretations;



- Appendix E-2 Terrain Classification Codes and Terminology;
- Appendix F Terrain Type Map Unit Figures;
- Appendix G Plan for the Protection of Archaeological and Cultural Features;
- Appendix H Applicable Acts, Regulations, and Guidelines;
- Appendix I NIRB Screening Part 1 Form – English;
- Appendix I NIRB Screening Part 1 Form – Inuktitut; and
- Appendix K NIRB Screening Part 2 Form.

In addition to the above information, the NWB Licensing department had been made aware that a full “hard copy and CD” application package was to be submitted to the NWB via Express Post. The “hard copy and CD” application package has been received as of the writing of this letter. In addition to the electronic submissions, the following documents are included with this package:

- Geomorphology and Soils – Meliadine Access Road, Meliadine Gold Project, Nunavut;
- All Weather Access Road Meliadine Gold Project Feasibility Level Design;
- Meliadine Gold Project Interim Abandonment and Restoration Plan for Water Licences 2BE-MEP0813 and 2BB-MEL0914;
- Meliadine Gold Project Waste Rock and Ore Management Plan Underground Mineral Exploration and Bulk Sample Program;
- Meliadine Gold Project Waste Management Plan;
- Meliadine Gold Project Water Management Plan;
- Meliadine Gold Project Fuel Management and Spill Contingency Plan for Water Licences 2BE-MEP0813 and 2BB-MEL0914;
- Quality Assurance/Quality Control Plan for the Meliadine Gold Project;
- Geochemical Assessment of Potential Road Construction Material Meliadine Gold Project, Nunavut; and
- Meliadine Gold Updated Project Description; with
 - Appendix A Synopsis of Exploration History;
 - Appendix B Acts, Regulations and Guidelines Applicable to the Meliadine Gold Project;
 - Appendix C Consultations and Meetings for Community, Regulatory Agencies and Elders 1995-2001;
 - Appendix D NIRB Forms;
 - Appendix E Confirmation Letter sent to the Department of Fisheries and Oceans.

Apart from this Application, the included Cover Letter dated October 5, 2011, stated that AEM “*will simultaneously make application to the NWB and to the KIA to allow AEM to expand its on-site fuel storage capacity at its Meliadine site by an additional 1.6 Million litres in early 2012 through an amendment of its existing water license 2BB-MEL0914*”. The application has been received as of the writing of this letter, and the NWB will be processing that application upon initial review for completeness.

The NWB also notes that in the cover letter, AEM indicated that it would “like to withdraw” the original amendment application for the AWAR that was submitted in February, 2011. The NWB requests that AEM provide a formal notice on AEM letterhead for the request to withdraw the application.



Application Review

In its initial review of the AWAR Application, the NWB placed particular emphasis on aspects of the following documents aimed at fulfilling the water licence application requirements, and discussing water related activities: Phase 1 – Meliadine All-Weather Access Road Project Description and Environmental Assessment (EA) and Appendix A - Operations & Maintenance Manual for the Phase 1 All-Weather Access Road (O&M). The NWB identified certain issues that must be addressed before the application can be considered complete and is distributed to interested persons for review/comments.

Application Form

Item 13 of the Water Licence Application states that no water will be used. However, Item 15 of Appendix K, NIRB Screening Part 2 Form states that *“the volume of water allowed for the camp under the Water Licence is 25m³/day and this is sufficient, even with the increased number of workers”*. The NWB’s understanding is that this statement refers to the water use under the water licence 2BB-MEL0914. Section 3.1 of Appendix A refers to mitigation measures for the control of road dust during operations and included the possibility of “watering of the surface” as a control measure. The source and volume of water to be utilized should be included. Therefore a confirmation is needed regarding water use requirements under the submitted licence application.

Design Drawings

Section 3.1.2, Road Configuration and Design, of the EA included Figure 3.1-2, Typical Road Cross-section for Thaw Susceptible Soil and Figure 3.1-3, Typical Road Cross-section at a Passing Turnout for Areas Over Thaw Susceptible Soil. Those designs are indicated as being Not for Construction in the Golder Associates Ltd. (Golder) report “All Weather Access Road, Meliadine Gold Project, Feasibility Level Design, January 2011” (Golder 2011a). The EA stated that *“there will be a total of 10 water crossings along the road route. Two of these crossings will be achieved using clear-span bridges (the Meliadine River at KM 2.3 and an unnamed stream at KM 5.0). In addition to the above, AEM will install a new clear-span bridge immediately adjacent to the existing Char River bridge that is located on the existing Municipal owned and operated road to the Iqaluqaarjuup Nunanga Territorial Park”*. Figures 3.1-5: Proposed Meliadine River Bridge Design and 3.1-6: Detail of Meliadine River Bridge Abutment of the EA and Figure 5: Meliadine River Bridge Design presented in the O&M are not legible. In addition, although being stamped by an Engineer, the status or development of those drawings is unknown. The design drawings for the planned 3 bridges are not included with the “All Weather Access Road, Meliadine Gold Project, Feasibility Level Design, January 2011” (Golder 2011a) report.

The For Construction Design Drawings of an appropriate scale that are stamped by an appropriate Engineer practicing in Nunavut, should be submitted for all planned water-crossings.

Quarries and Borrow Pits

The Golder’s “Geochemical Assessment of Potential Road Construction Material Meliadine Gold Project, Nunavut” evaluated generally the geochemical characteristics for potential quarry and borrow sites for this project using the results of chemical analysis of discrete rock and till samples from a limited number of surface locations.

Section 2.1.2 Road Construction Material of the O&M states that *all proposed rock and granular quarry/borrow sources used for road construction have been tested and verified as being non-acid generating and with low metal leaching potential*. Sections 3.1.4 Rock and Granular Material Quarries and 5.2 Aquatic Environment, of the EA, state that *“...all material used at the watercourse crossings will be non-acid generating; however, this will be verified through testing of the rock fill material and through monitoring of water quality in the watercourse during and after construction”*.



It is recommended that a stand alone Borrow Pit and Quarry Management Plan be included with the application that clearly defines the procedures, methods and monitoring to be implemented in order to achieve the required verification as stated in Sec.5.2 of the EA.

Spill Contingency Measures

Information about the spill contingency measures that will be implemented during the construction and operation of the AWAR are presented in Sections 3.4 Emergency Response, 3.4.2 Spill Response, of the EA and in the O&M under Section 7.0 Management of Hazards and Emergency Response. It is indicated that *“the existing Meliadine Gold Project Fuel Management and Spill Contingency Plan (SCP) for Water Licences 2BE-MEP0813 and 2BB-MEL0914, November 2010 will be updated to include the all-weather road”*.

It is the NWB’s understanding that the inclusion of the all-weather road in the SCP for Licences 2BE-MEP0813 and 2BB-MEL0914 may indicate a change in the scope of those licences, and possibly result in unintended amendments being required. NWB requests that for the separate licence application, a standalone SCP should be presented for the proposed activities. Information on the possible use of chemical dust suppressants and/or water use during the operation of the AWAR should also be included in the SCP.

Monitoring Program

Monitoring activities are generally described in the EA Sections 5.2.7.1 Hydrology, 5.2.7.2 Water Quality and 5.4.7 Monitoring, and follow-up for Physical Environment (terrain and permafrost) as well as in the M&O Section 6.0 Environmental Monitoring Program.

A stand-alone Monitoring Plan should be provided with the application. This plan shall discuss the hydrology, water quality, rock fill testing and permafrost monitoring activities and include a map of proposed monitoring locations to be considered. The Plan should also address inspections of the road surface, shoulders, culverts, and bridges along the route.

Reclamation and Closure

Section 10.0 Reclamation, of the EA, discusses in general the road decommissioning and includes a paragraph on Quarry Sites and Borrow Sources. In addition, an Estimate of Reclamation Liability is presented in subsection 10.1.

A stand alone Interim Reclamation and Closure Plan related to the AWAR is to be provided that includes the reclamation schedule and procedures in the event that after the initial road construction is conducted, subsequent phases of the proposed Meliadine Gold Project are not approved or undertaken. The detailed estimate of reclamation liability is to be discussed and included within the plan.

The NWB would like to emphasize that the information for the water licence application needs to be sufficient, to provide the assurance and confirmation to the Board that adequate mitigation measures have been contemplated and developed sufficiently to protect freshwater resources, and in some circumstances, as itemized in this letter, it is advisable to provide stand-alone documentation related specifically to the AWAR in addition to the information supplied for the EA. To ensure that the water licence application review process can continue without unnecessary delay, additional complete information and plans need to be submitted in timely manner.

Please feel free to contact the undersigned at (867) 360-6338 Ext. 30 or



k.kharatyan@nunavutwaterboard.org or David Hohnstein, Director of Technical Services at (780) 443-4406 or dts@nunavutwaterboard.org should you have any further technical questions and Phyllis Beaulieu, Manager of Licensing at licensing@nunavutwaterboard.org for any licence administrative matters, at your earliest convenience.

Yours truly,

Original signed by:

Karén Kharatyan
Technical Advisor

cc: Distribution List – Kivalliq

