



8 June 2012

NWB File: 2BB-MEL0914  
CIDMS #: 533341

Ms. Phyllis Beaulieu  
Licencing Coordinator,  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0B1J0

**Re: 2BB-MEL0914 - Water License Amendment to establish a landfill at the Meliadine Site:  
Agnico-Eagle Mines Limited (AEM): Response to Comments from Aboriginal Affairs and Northern  
Development Canada**

Dear Ms. Beaulieu;

AEM's amendment application is for the disposal of solid, nonhazardous waste in a proposed landfill. No liquids are to be disposed of in the landfill. AEM has prepared responses to Aboriginal Affairs and Northern Development Canada comments in their letter of June 1<sup>st</sup>, 2012.

**AANDC Comment:**

*AANDC recommends that all relevant leases, permits, conformity checks and screenings as well as any other authorizations are in place and proper approvals received before any work commences. AANDC notes that the appropriate approvals from the Nunavut Planning Commission and Nunavut Impact Review Board (Question 7 and 8 in the application answered **No**, however there was no confirmation attached) were not received or available prior to Agnico-Eagle submitting their renewal application.*

**AEM's Response:**

Sections 7 and 8 of the application ask for confirmation of NPC and NIRB approvals. AEM understands that these are required and has followed standard procedures in obtaining them. The amendment application is sent by AEM to the NWB who then sends the application to its distribution list - this includes the NPC and NIRB among others. If needed, confirmation is subsequently provided by the NPC and the NIRB following their review of the application. We feel this is an efficient means in meeting these two requirements. The NPC and NIRB responses to the amendment request were received by the NWB and were forwarded to AANDC's for their information.

**AANDC Comment:**

*AANDC notes that there was limited detail on water management controls for the landfill, although this area is within the Primary Containment Area.*

*AANDC recommends clarification into the control of water runoff and seepages from the landfill and if this water will be controlled and diverted to a collection area where it will be tested prior to discharge.*

*AANDC also recommends as a precautionary measure that a full suite of water quality parameters standard for landfills be included in the site run-off monitoring plan, and that glycol be added to monitoring of land farm run-off.*

**AEM's Response:**

The location of the proposed landfill is outside the drainage basin of the Primary Containment Area (PCA). The extent of the PCA is noted on annotated figure 4, which is within the "A" drainage area. The landfill is in the "H" drainage basin – see the annotated figure 5 showing the various drainage basins, and where the proposed landfill and PCA are located.

The landfill is located in the headwaters of the H drainage basin. Drainage patterns are poorly defined in the upper reaches and are only active during spring freshet and large rain events. The topography is quite flat where the landfill is to be located and any leachate is more likely to pond than flow. Pondered leachate water samples will be analysed for the complete suite of parameters. If flow is evidenced reaching a nearby H pond, a water sample will be collected from the pond for a complete suite of parameters as well.

Waste segregation is practised at Meliadine and materials not compatible with land filling will not be placed in the landfill. This should result in any landfill leachate being quite dilute. Sampling to be undertaken by AEM will confirm this and analytical results will form part of the annual report.

Aboriginal Affairs and Northern Development makes reference to the monitoring of glycol in land farm run-off. (AEM does not have a land farm on site and we assume reference is being made to possible runoff from the proposed landfill.) The most common form of glycol used at the Meliadine advanced exploration camp is ethylene glycol. It is used as antifreeze in machinery. In servicing machinery ethylene glycol can be drained and if it cannot be reused, it is stored in totes or barrels held within secondary containment. Waste liquids such as ethylene glycol are shipped as a hazardous waste to a certified waste management company for treatment, recycling and/or disposal in another provincial or territorial jurisdiction. As no liquids are to be disposed of in the landfill, the analysis of glycol is not required.

**AANDC Comment**

*AANDC recommends crushing or cutting into smaller pieces any objects and/or other equipment that may cause voids within the landfill which may result in slumping or depressions to form within the landfill and thus reducing the integrity and effectiveness of the landfill.*

**AEM's Response:**

Operating procedures will see the waste compacted by running the dozer over the waste materials after final placement. This will help to crush any bulky items placed in the landfill and reduce voids.

AEM also has an active recycling program with metal waste being sent to a certified waste management company for treatment, recycling and/or disposal in another provincial or territorial jurisdiction. It is normally waste metal that creates voids in a landfill and this will be precluded through the recycling program.

**AANDC Comment:**

*AANDC recommends that the proponent be advised that in order to transport hazardous wastes in Nunavut the waste generator must be registered with the Government of Nunavut, Environmental Protection Division and provide the final destination for the hazardous wastes (approved registered facility).*

## **AEM's Response**

Meliadine shares a hazardous waste generator number Meadowbank. Presently, AEM expects to ship approximately 2 sea cans of hazardous waste in 2013 to a certified waste management company for treatment, recycling and/or disposal in another provincial or territorial jurisdiction. The shipment will be under AEM's hazardous waste generator number NUG 100031. The sea cans and their labeling will be inspected by an accredited TDG person in Rankin Inlet and appropriate paperwork will be kept on file in camp. Hazardous waste is being held at the Meliadine site in secondary containment until completion of the Phase 1 All-weather Access Road.

## **AANDC Comment**

### ***Section 3 & 4 The Containment Area and Water Treatment***

*The proponent states that effluent (meeting discharge criteria) discharged from the containment area enters what are identified as "polishing ponds" and specifies Lake A8 as the receiving environment. AANDC recommends further clarification that effluent will not be discharged to the "polishing ponds" unless discharge criteria are met.*

*AANDC also recommends that the proponent clearly demonstrate the boundaries of the containment area and identify which water bodies lay within these boundaries. This is very hard to decipher with the figures provided.*

## **AEM's Response**

AANDC is referring to the supplementary questionnaire for advanced exploration questionnaire, which was updated for this amendment. This updated questionnaire was included for completeness and sections 3 & 4 refer to the Primary Containment Area, which is in a different drainage basin than the landfill as mentioned above. The polishing ponds are downstream of the PCA and are less than 2 metres deep. All freeze to bottom during the winter.

Before any water is discharged from the PCA, a sample is collected and undergoes a complete suite of analyses at a commercial laboratory. If the water does not meet discharge criteria or acceptable water quality standards, it is not discharged.

The boundary of the PCA can be found on annotated figure 4.

Should you have any questions or concerns, please do not hesitate in getting in touch with me at 819 277 5444 or [jwitteman@agnico-eagle.com](mailto:jwitteman@agnico-eagle.com).

Yours sincerely,



John Witteman

Cc. Ian Parsons, Aboriginal Affairs and Northern Development Canada  
David Frenette, Stéphane Robert, Josée Noël - AEM





