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Department of Environment
Ministère de l'Environnement

Nov. 1, 2007

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board

via Email to: licensing@nunavutwaterboard.org

RE: NWB FILE # 2BE-MEA – AGNICO-EGALE MINES LTD. – MEADOWBANK EXPLORATION PROJECT

Dear Ms. Beaulieu:

The Government of Nunavut, Department of Environment (DOE) has reviewed the water license renewal application for the Meadowbank exploration project, from the Agnico-Ealge Mines Ltd. for gold exploration, approximately 70 km north of Baker Lake. Based on the *Environmental Protection Act*, the DOE has the following comments to make regarding spill contingency, abandonment & restoration, and incineration.

A. SPILL CONTINGENCY PLAN

Based on the DOE's *Spill Contingency Planning and Reporting Regulations,* and *Spill Reporting in Nunavut: a Guide to the New Regulations*, the DOE has the following comments to make:

- A description of the type and amount of chemicals such as drill additives normally stored on site should be included in the spill plan.

- All fuel tanks, connectors and associated plumbing should be installed in a manner that meets current acceptable codes for the installation of such appliances. Fuel tanks should be situated on solid platforms, on a stable base, and should be inspected on a regular basis for leaks and movement (shifting). Flex connectors, if used, should be installed as per manufacturer's instructions and should be inspected regularly. It should be noted that many spills in Nunavut result from improperly installed and maintained heating fuel tanks and especially improperly-installed flex connectors.

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- Secondary containment structures for hazardous materials should be kept free of snow, water and debris. The majority of snow from the surface of the tank farm should be removed in the spring while everything is still in a frozen state, to prevent large ponding of water and possible migration of the water potentially contaminated in the case of a tear in the liner.

- It is advised to keep a stock of 55 gallon “overpack” or “salvage” drums. These afford a safe, effective and rapid means for containing leaking drums.

- While snow can be useful to stop the spread of spills, disposing of fuel contaminated snow can be problematic; especially if large volumes are involved. The single most difficult problem associated with disposing of large amounts of fuel contaminated snow is finding a place to store and treat the snow before the spring melt.

  The proponent is strongly advised to consider how they would manage large amounts of fuel-contaminated snow in the event of a major spill. While empty 45 gallon drums make excellent containers, more often than not, there are not enough of them on site to handle the volume of contaminated snow. The DOE refers the applicant to a GNWT document entitled: *Generic Plans and Operating Procedures of a Remediation Facility for Hydrocarbon-Contaminated Materials in the NWT*. The applicant might find this to be of use in developing a plan for managing fuel-contaminated materials such as snow and soil.

- In addition to a course outline for spill contingency training, the qualifications and background of the instructor(s) for the training course should also be provided. This information is useful to regulatory agencies in that it allows them to determine how well-prepared the applicant is to deal with hazardous materials spills.

B. ABANDONMENT & RESTORATION

To ensure proper reclamation of the project site after closure, the DOE recommends the following:

- Drill holes and sumps should be backfilled or capped at the end of project, and be contoured to match surrounding landscape. The sumps should only be used for inert drilling fluids, not any other materials or substances. The sumps should also be properly closed out at the end of a project.

- Page 5 of the *Abandonment & Restoration Plan* stated that contaminated soil will potentially be treated on-site with biological remediation agents, such as ‘oil sponge’. It is important the applicant provides further details to ensure this methodology would be appropriate. Details such as facility

location, management and monitoring procedures, standard that the treated soil will comply with, and eventual disposal location of the treated materials, would be useful for this review.

C. CAMP INCINERATOR

The Government of Nunavut is a signatory to the *Canada-Wide Standards for Dioxins and Furans*, and the *Canada-Wide Standards for Mercury Emissions*. The DOE therefore has the following comments to make.

For a camp of more than 50 people, the applicant shall apply appropriate technologies to ensure complete combustion of wastes, and emissions from an incinerator comply with the standards. The use of a dual chamber, controlled-air flow incinerator is recommended, and compliance with the Standards shall be demonstrated with an initial stack test upon commission of the incinerator on site. During the course of operations, the proponent shall make determined efforts to achieve compliance with the Standards. Determined efforts shall include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. Additionally, the efforts shall also include but not be limited to appropriate record management, including maintenance reports, operator training logs, and the submission of an annual report that outlines the efforts made to achieve compliance with the Standards.

Finally, waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions should not be burned. Additionally, plastics, electrical wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans when burned and should be excluded from incineration.

The DOE thanks the NWB for the opportunity to provide comments on the Meadowbank exploration project. Please contact us if you have further questions.

Yours sincerely,

Original signed by

Helen Yeh
Environmental Assessment Coordinator
Department of Environment
Government of Nunavut