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Department of Environment

Ministère de l'Environnement

June 1, 07

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board

via Email to: licensing@nunavutwaterboard.org

RE: NWB FILE # 3BM-PEL – HAMLET OF KUGAARUK WATER LICENCE

Dear Ms. Beaulieu:

The Government of Nunavut, Department of Environment (DOE) has reviewed the renewal water license application from the Hamlet of Kugaaruk. Based on the *Environmental Protection Act*, the DOE has the following comments and recommendations to make regarding its sewage lagoon and solid waste management facility.

1. SEWAGE MANAGEMENT:

- The applicant indicated a package sewage plant will be used during reconstruction of the sewage lagoon; however, no detailed information regarding the plant was discussed. Information such as the type of the plant to be used, the capacity of the plant, operation & maintenance procedures for the plant, and contingency measures when the plant is malfunctioned, should be submitted for review.
- The design of sewage lagoon to be reconstructed should be approved by a professional engineer registered in Nunavut.
- The applicant indicated that sewage sludge from the current sewage lagoon will be removed; however, no information was submitted regarding how and where the sludge will be disposed of. The applicant should provided details regarding sludge management in the present and in the future. Estimates should be made regarding the quantities of sludge likely to be produced, the required frequency of extraction from the lagoons, and operational procedures developed for environmentally sound removal and disposal.
- Page 14 of the *Water Licence Application Supplementary Questionnaire*

for *Municipalities* stated that “no monitoring program is currently in place for wastewater or leachate.” It is important that monitoring is carried out during the month of effluent discharge to ensure effluent meets the approved standards such as the ones outlined in the “Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories.

- Considering the past history of berm breach and sewage spills a spill contingency plan should be provided for review. The applicant is referred to DOE’s *Spill Contingency Planning and Reporting Regulations* and *Spill Reporting in Nunavut: a Guide to the New Regulations*.
- There is discrepancy regarding berm slope; ratios of 3:1 (run over rise), and 2:1 are indicated in the application. The applicant should clarify this.

2. SOLID WASTE MANAGEMENT

No monitoring of leachate at the landfill is currently proposed. It is important monitoring is carried out to ensure that local water resources are not contaminated, and that monitoring results comply with approved standards. Leachate should be monitored regularly by collection of soil and/or water samples, in addition to visual inspections. Water samples should be collected from one monitoring well upgradient of the landfill as well as from three wells downgradient of the landfill. Soil samples at the toe of the landfill should be collected from the same locations as the wells.

The DOE thanks NWB for giving us the opportunity to review and provide comments on the Kugaaruk renewal water license application. Please contact us if you have any further questions or comments.

Yours sincerely,

Original signed by

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