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Department of Environment

Ministère de l'Environnement

May 31, 2007,

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board

via Email to: licensingtrainee@nwb.nunavut.ca

SUBJECT: CAPE DORSET SEWAGE LAGOON SYSTEM

Dear Phyllis:

In light of the necessary time constraints associated with this file, the Department of Environment (DOE) has not had the opportunity to technically review the new information submitted by the Hamlet of Cape Dorset in support of their water license application. Additionally, at the time of writing, no access to the NWB ftp has prevented us from undertaking a final review of previously submitted information. In the absence of such reviews, DOE recommends that should a license be issued by NWB, the following apply:

1. Recommendations from April 2006

Spill Contingency Planning

In DOE's correspondence of April 2006 we provided recommendations that stated the following.

'The applicant should produce a contingency plan, or update existing spills plans, to include new operations and infrastructure. The plan should facilitate response to spills which might occur during construction and operation of the project. The plan should include a list of available spill response equipment and the names of trained personnel who will be on-site and available in the case of a spill'.

'The proponent is referred to DoE's Spill Contingency Planning and Reporting Regulations and A Guide to the Spill Contingency Planning and Reporting Regulations'.

DOE would like to ensure that as condition of the license an updated plan is submitted to NWB prior to commissioning of the new facility

Sewage Sludge Disposal

In our April 2006 submission, DOE raised the following issue regarding sewage sludge disposal;

'One of the stated design parameters for the sewage system is ease of maintenance. Part of this maintenance should include removal and disposal of sewage sludge; this does not appear to have been considered. Estimates should be made of 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. These procedures should include characterization to ensure disposal options are appropriate.'

To our knowledge this issue has not been addressed and DOE requests that submission and approval of sewage disposal plan be a condition of the license.

2. Effluent Guidelines

DOE would like to see effluent quality standards applied to this license at least equivalence to those outlined in the document, *'Guidelines for the discharge of treated municipal wastewater in the Northwest Territories'*. For a marine discharge of 150-600 litres per capita per day with a mixing conditions similar to a bay or fjord these standards are; BOD 120 mg/l and TSS 180 mg/l. Additionally as the proposed discharge point is close to local harvesting and recreational areas, criteria for *fecal coliform* should also be applied; however, DOE is not the appropriate authority to determine these criteria.

3. Monitoring

DOE would like to see the license specify a monitoring station at the last point of effluent control. With a likely fall discharge period of approximately 60 days, samples taken for the purposes of monitoring effluent quality should be collected on the first and last day of discharge, and 30 days after the first day of discharge.

4. Engineering Sign off

Through participation in the September 2006 technical meeting in Cape Dorset, DOE became aware of concerns over the design and integrity of engineered structures as well as hydrological concerns related to site drainage and groundwater conditions below the proposed lagoon. To address these concerns DOE recommends NWB ensure that all final design and construction drawings are signed by a registered professional engineer, registered in Nunavut, prior to issuing the water license.

Once again, we thank NWB for the opportunity to comment on this license application.

Yours sincerely,

Original signed by

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