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March 21, 2003

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Sent by email to: nwblic@polarnet.ca

Pond Inlet Airport Water Licence Application

On behalf of Indian and Northern Affairs Canada (INAC), I am pleased to submit the following comments on the water licence renewal application for the Municipality of Pond Inlet.

1. Introduction

This submission, on the application for a renewal of the municipal water licence by the Municipality of Pond Inlet, is submitted on behalf of the Water Resources division of INAC.

The Municipality of Pond Inlet is currently operating under the water licence NWB3PON9904, which expires January 14, 2004. However, since a new sewage lagoon is planned for 2003, INAC views this application as a combination of an amendment to the current licence as well as a renewal.

This submission will be based on the water licence application received by the Nunavut Water Board (NWB) on January 20, 2003. Past inspection reports have also been taken into consideration.

2. Conditions Applying to Water Use

The Municipality currently receives water from Water Lake, located approximately 4.4 km south of the community. Water Lake was bermed to allow for the retention of a greater volume of water. Natural recharge of Water Lake is augmented by pumping water from the nearby Salmon Creek. It should be noted that natural recharge alone is insufficient to meet the water needs of the community.



Water Lake has a truck fill station. The water receives a chlorine treatment and is then distributed to the community by truck. Water consumption will reach 54,767 m³/year in 2003. By 2008, consumption is expected to reach 64,567 m³/year, while a consumption rate of 76,375 m³/year is expected by 2013.

Assuming a 5 year water licence (2004 to 2009), INAC recommends that the annual volume of water pumped from Water Lake/Salmon Creek should not exceed 67,000 m³/year for the term of the licence.

SNP station 1 should be designated as "raw water supply from Water Lake," to be measured at the truck fill point. It should be used to measure the monthly quantity of water pumped from Water Lake.

INAC also recommends the installation of warning signs along Water Lake indicating that the lake is the source of the Municipality's drinking water.

3. Conditions Applying to Waste Disposal

Sewage is trucked from the residential holding tanks to the sewage disposal area located to the south-east of the Municipality. Although the current sewage lagoon is located in that area, that lagoon is currently seeping and repairs are underway. During this period of repairs, raw sewage is being dumped in a gully, known locally as Kitingujaat, running along the solid waste site. The gully is a natural wetland area, which provides some treatment for the sewage. The temporary disposal of sewage into the gully was authorized by the NWB on September 5, 2001.

A new lagoon - actually the reparation and expansion of the current lagoon - is scheduled to be completed in the summer of 2003, at which point dumping of sewage into the gully will stop. The new lagoon is designed to meet the needs of the community for the next 20 years.

INAC recommends that SNP station 2 be designated as "raw sewage from the pumpout truck." Station 2 should be used for the monthly measure of sewage generated by the Municipality.

Also, SNP station 3 should read as "runoff below the sewage disposal area prior to discharge into the marine environment." This should include sampling of the sewage effluent prior to reaching the Eclipse Sound in the area of greatest flow. The sewage effluent at SNP station 3 should be sampled monthly during periods of flow for the following parameters and limitations:

Total Suspended Solids

180 mg/L

BOD 120 mg/L

Fecal Coliform 10,000 CFU/100 mL

pH 6 to 9

Oil and Grease no visible sheen Ammonia monitor only

Warning signs should be posted along the flow path of the sewage effluent.

The Municipality also has an old lagoon that is no longer in use. However, this old lagoon has yet to be properly abandoned and restored. INAC therefore believes that, until the facility is properly abandoned, it should be considered an active lagoon and treated as such in the water licence.

INAC therefore recommends that SNP station 4 should read as "runoff below the old sewage disposal area prior to discharge into the marine environment." SNP station 4 should have the same parameters and monitoring requirement as SNP station 3. Monitoring at SNP station 4 should be required for until the old sewage lagoon undergoes proper abandonment and restoration.

The Municipality of Pond Inlet's solid waste management site is located adjacent to the sewage lagoon and the Kitingujaat gully. The site is surrounded by a fence. The Municipality practices on site burning of municipal waste. Waste oil is drummed and other hazardous wastes are segregated from the main waste stream. There is also a separate area for bulky waste.

INAC also recommends that SNP station 5 read as "runoff below the solid waste disposal area and prior to discharge into the bay." Monitoring should take place at station 5 on a monthly basis during periods of flow. The parameters to be monitored should not be too onerous for the Municipality.

4. Conditions Applying to Abandonment and Restoration

The Municipality currently has an abandoned sewage lagoon and solid waste disposal site located closer to the community. Previous inspections from the INAC Water Resource Officer have indicated that effluent has been noticed from the old lagoon. INAC therefore recommends that the Municipality prepare an abandonment and restoration plan for the old sewage lagoon. Once the plan is approved, the Municipality should proceed with the final restoration of the site. Until the site is fully abandoned and restored, the old sewage lagoon should be considered an active sewage lagoon and require monitoring.

5. Conditions Applying to Operation and Maintenance

INAC recommends a requirement for an updated Operation and Maintenance (O&M) Plan for the new waste disposal facilities be submitted to the NWB for approval within 6 months of the issuance of the licence. This O&M Plan should include - but not be limited to provisions for the segregation and storage/disposal of hazardous waste such as petroleum or batteries.

6. Recommended Terms of Licence

INAC recommends a 5 year term to allow enough time for the Municipality to establish a consistent compliance record. This should also give them time to resolve any unforseen potential problems with their proposed sewage treatment facility.

Finally, INAC recommends allowing all interested parties to review and comment on the draft licence prior to it being issued. This will allow the Municipality of Pond Inlet to express any reservations they may have at this point. Hopefully, any reservations can be resolved early in the process and minimize any non-compliance issues in the future.

If you have any concerns or questions, please feel free to contact me.

Sincerely,

Original Signed By: Michael Roy

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