



Nunavut Regional Office  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

Your file - Votre référence

April 26, 2005

Our file - Notre référence  
9545-3-3-IQA-G

Mr. Brad Sokach  
City of Iqaluit  
P.O. Box 460  
Iqaluit, NU, X0A 0H0

*Hand delivered*

**Re: Request for opinion on wastewater treatment technology**

Dear Mr. Sokach,

Indian and Northern Affairs Canada (INAC) acknowledges receipt of your April 19, 2005, email with regard to the proposed use of Snowfluent technology for the treatment of municipal wastewater in the City of Iqaluit. In your email, you indicate that City Council has requested an opinion from regulators on the use of Snowfluent vs. activated sludge for wastewater treatment.

INAC will review and provide technical advice, through the Nunavut Water Board (NWB) water licencing process, on any wastewater treatment system the city chooses to implement. We are not in a position, however, to advocate the type of wastewater treatment technology used to meet the requirements of a licence or legislation.

INAC is aware that the City of Iqaluit currently has an application filed with the NWB for a Type A Water Licence. INAC can not attempt to presume the decision of the NWB with regard to the issuance of a Water Licence, or of any terms or conditions that may be contained therein. We are therefore currently unable to provide guidance on any specific criteria that may be required of the City in the operation of a wastewater facility.

In INAC's review of a Water Licence application, the material presented is evaluated for its ability to meet the requirements of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWSRTA)*. The *NWSRTA* prohibits, with exceptions, any unauthorized use of water or deposit of waste into water. I have included below, in the event they may be of assistance in your deliberations, examples of the types considerations INAC includes in our review of wastewater storage and/or treatment facilities.

**Considerations in the review of wastewater treatment and discharge facilities:**

1. **Treatment/discharge quality.** Effluent discharges out of conformity with Water Licence criteria are subject to enforcement action under the *NWNSRTA*. INAC therefore recommends that Proponents take every reasonable measure to ensure that effluent will consistently meet Water Licence discharge criteria.
2. **Potential for, and magnitude and consequences of, unauthorized release.** INAC recommends that Proponents carefully consider the consequences of unauthorized releases in the planning stages of any treatment system. INAC recommends that Proponents consider the magnitude (volume and affected area), intensity (deviation of the quality of the released material from Water Licence quality criteria), effects (i.e. proximity to water bodies or other sensitive areas), and reversibility (effectiveness of clean-up measures) of potential unauthorized discharges when designing wastewater treatment systems.
3. **Potential for catastrophic release.** As distributed by the NWB, INAC will review the plans and inspection reports of structures associated with wastewater storage and treatment. Recommendations are provided, where appropriate, to decrease the probability of structural failure. We encourage Proponents to perform any required repairs and/or modifications to decrease the probability of catastrophic structural failure and concomitant wastewater release.
4. **Monitoring.** The Proponent must be able to demonstrate, through the monitoring plan, that the wastewater effluent/discharge meets the quality and quantity conditions imposed by a Water Licence.
5. **Contingency planning.** INAC recommends that Proponent have clearly identified responses and reporting mechanisms in the event that there is a spill, or if a treatment system does not operate as planned.

INAC commends the City for their commitment to ensuring the protection of human and environmental health through effective wastewater management. Please do not hesitate to contact the undersigned at (867) 975-4555 or [hawkinss@inac-ainc.gc.ca](mailto:hawkinss@inac-ainc.gc.ca) if you have any questions or concerns, or if we might be of any further assistance in this matter.

Best regards,

**Original signed by:**

Stephanie Hawkins  
Qikiqtani Regional Coordinator  
Water Resources Division

cc: Jim Wall, Nunavut Water Board  
Doug Sitland, Community Government Services - Government of Nunavut  
Director of Operations, Indian and Northern Affairs Canada