



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU X0A 0H0

Your File: 3BM-RAN0207  
Our File: 9545-2-2.3BM.RANA  
CIDM's #: 350417

August 28, 2009

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0A 1J0

**Re: Renewal Application for Type 'B' Water Licence (3BM-RAN0207) –  
Nuna Burnside Engineering and Environmental Inc. on behalf of the  
Hamlet of Rankin Inlet**

Please be advised that Indian and Northern Affairs Canada (INAC) has completed a review of the Hamlet of Rankin Inlet application for the renewal of the expired licence (3BM-RAN0207) for solid waste disposal activities as well as the land farm operations & maintenance. See attached Technical Review Memo for your consideration in the approval of this renewal.

Please feel free to contact me should you have any questions or comments. I can be reached at (867) 975-4568 or by email at [Ian.Rumbolt@inac-ainc.gc.ca](mailto:Ian.Rumbolt@inac-ainc.gc.ca).

Sincerely,

*Original signed by*

Ian Rumbolt  
Regional Coordinator



## **Technical Review Memo**

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Ian Rumbolt – Regional Coordinator, Indian & Northern Affairs Canada

**Re: Renewal Application for Type ‘B’ Water Licence (3BM-RAN0207) –  
Nuna Burnside Engineering and Environmental Inc. on behalf of the  
Hamlet of Rankin Inlet**

### **Comments/Recommendations:**

#### Land Farm

It is unclear whether or not the land farm in this application is the same one that is owned and operated by the Government of Nunavut, Community and Government Services (GN-CGS) under licence 1BR-RAN0914. The Hamlet should provide further clarification on this point. INAC assumes that this land farm is not covered under licence 1BR-RAN0914 and therefore the Nunavut Water Board (NWB or Board) should take into consideration the following recommendations:

- 1) No effluent discharges of contaminated material are permitted without prior approval from INAC Inspectors and the NWB. Contaminated liquid collected within the treatment area must be analyzed to determine compliance with the CCME Guidelines for the protection of Aquatic Life 2003 for hydrocarbons before discharging to receiving waters.
- 2) A contingency and mitigation plan must be provided to deal with the possibility of seepage from the land farm. One consideration would be to dig a trench around the land farm with an HDPE liner to collect any seepage.
- 3) INAC recommends that a fence is built around the land farm to prevent the misuse and inappropriate dumping of materials inside of the land farm. Soil or snow contaminated with heavy metals, glycols and/or heavy oils should not be placed in the land farm due to the length of time required to remediate these materials.
- 4) The recommended depths for contaminated soil should range between 30 and 45 cm. The thicker the soil depths, the more tilling is required to aerate thus potentially affecting the time required to properly remediate the contaminated soil.
- 5) Proper equipment must be used for tilling the contaminated soil and care should be taken when using this equipment. Any misuse could cause tears to the liner which may result in seepage outside of the land farm.



- 6) INAC recommends that an independent consultant with expertise in soil sampling techniques obtain samples after the remediation process is complete to ensure reliability.
- 7) Precautions have to be taken when tilling the soil inside the land farm with loaders. The operators have to be careful not to puncture or rip the liner with the equipment.

#### Environmental Emergency Contingency Plan

- 1) Update contact information for the INAC Field Operations Division (Inspectors):

Peter Kusugak  
Manager of Field Operations  
INAC – Nunavut Regional Office  
Ph: (867) 975-4295  
Fax: (867) 979-6445

Andrew Keim  
Water Resources Inspector  
INAC – Nunavut Regional Office  
Ph: (867) 975-4298  
Fax: (867) 979-6445

#### Solid Waste Management Facility Operational and Maintenance Plan

- 1) The Board should impose a condition that states “no open burning of plastics, wood treated with preservatives, electrical wire, Styrofoam, asbestos or painted wood to prevent the deposition into any surrounding waters of waste materials from incomplete combustion and/or leachate from contaminated ash residues”.
- 2) INAC recommends that the proponent should be required to test any surface waters that accumulate outside of the land farm facility to ensure berm and liner integrity.
- 3) A contingency and mitigation plan should be required by the NWB to address water accumulation inside of the land farm as well as the possibility of seepage from the land farm. Water that accumulates inside of the land farm should be spread over the contaminated soils for further treatment and not discharged outside of the land farm unless approved by the Board or INAC Water Inspectors.



Cc. Kevin Buck, Manager of Water Resources – Indian & Northern Affairs  
Canada, Nunavut Regional Office