



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

Your File: 1BR-RAN0914
Our File: 9545-2-3RANG
CIDM's #: 327661

May 4, 2009

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

**Re: 1BR-RAN0914 – Rankin Inlet Land farm, Government of Nunavut-
Community and Government Services (GN-CGS) – Land farm O&M
Plan, Spill Contingency Plan and Abandonment & Restoration Plan**

Please be advised that Indian and Northern Affairs Canada (INAC) has completed a review of the Rankin Inlet Land Farm Operational & Maintenance (O&M) Plan, Spill Contingency Plan (SCP) and Abandonment & Restoration (A&R) Plan (see attached Technical Review Memo).

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.

Sincerely,

Original signed by

Ian Rumbolt
Regional Coordinator



Technical Review Memo

To: Richard Dwyer - Licensing Administrator, Nunavut Water Board

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

Re: **1BR-RAN0914 – Rankin Inlet Land farm, Government of Nunavut-Community and Government Services (GN-CGS) – Land farm O&M Plan, Spill Contingency Plan and Abandonment & Restoration Plan**

The Rankin Inlet Land Farm O&M, Spill Contingency and A&R Plans were submitted to the Nunavut Water Board (NWB) on March 27, 2009 by FSC Architects & Engineers on behalf of Government of Nunavut, Community and Government Services (GN-CGS). In conducting the review documents on the NWB's FTP-site under 1BR-RAN0914 were referred to.

Background:

The GN-CGS was issued a water licence for the Rankin Inlet Land Farm to allow for the removal of contaminated soil during an upgrade to the Rankin Inlet Fuel Facility. Approximately 5,000 m³ of hydrocarbon contaminated soil will be removed from the fuel facility and transported to the proposed lined, engineered landfarm to be remediated. The landfarm will be located adjacent to the new Rankin Inlet Municipal Solid Waste Site and will be accessible from the same road. The construction of the landfarm is scheduled to begin during the summer of 2009 and remediation of the contaminated soil should be completed in less than 5 years.

Comments/Recommendations:

Spill Contingency Plan

- 1) The spill contingency plan should include contact names of the individuals responsible for responding to any spills and otherwise implementing procedures outlined in the plan.
- 2) GN-CGS should check with the various government agencies and organizations and update the emergency contact list in section 1.12 of the spill plan. For Example:
 - The INAC Water Resource Officer can be reached at (867) 975-4289 or 975-4295



Operational and Maintenance Plan

- 3) In the O&M Plan the proponent states “Surface water that appears outside the containment area will be routed around the berms and will have no chance to penetrate the contaminated soils.” A contingency and mitigation plan should be required by the NWB to address the possibility of seepage from the landfarm. 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.
- 4) INAC recommends that a fence be built around the landfarm to prevent the misuse and inappropriate dumping of materials inside of the landfarm. Soil or snow contaminated with heavy metals, glycols and/or heavy oils should not be placed in the land farm as this system is not designed for treatment of such materials.
- 5) According to section 1.2 of the Operation and Maintenance Protocols, “Generally, soil is to be deposited no deeper than 1 meter”. It is recommended that the 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.

Abandonment and Restoration Plan

- 6) When the liner is removed from the land farm facility, it must be cleaned of any hydrocarbon residue before it can be disposed of in the landfill.
- 7) If soils below the liner are found to be contaminated, these soils should be removed and disposed of appropriately. The NWB should be notified if this occurs and a revised clean-up plan required.

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