



Environment Canada Environnement Canada

Environmental Protection Operations
5204 - 50th Avenue Suite 301
Yellowknife NT X1A 1E2

February 5, 2009

Our File No.: 4105 006 114

Your File No.: 1BR-RES

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
Tel: (867) 360-6338
Fax: (867) 360-6359

Via Email at licensing@nwb.nunavut.ca

Dear Phyllis Beaulieu,

RE: NWB 1BR-RES – Indian and Northern Affairs Canada – Resolution Island Water License (1BR_RES0308) Extension – Remediation Project

Environment Canada (EC) has reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to EC's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

On November 21 2005 EC reviewed the Indian and Northern Affairs Canada (INAC) Long-Term Monitoring Plan or "Resolution Island Monitoring Program: NWB App. # NWB5RES0308 (December 31, 2003)", and found it to be clearly laid out and sufficient for the purposes of ensuring that contaminants do not migrate on site. As a result of the 2005 review, EC proposed several recommendations. However, as of today, the following recommendations do not appear to have been adopted by INAC within the license (Original extracts from EC letter dated November 15 2005 follows):

General

- Table 2 outlines the proposed monitoring requirements for both new landfills and old dumps. However, details regarding the parameters to be monitored are not provided. EC recommends that the monitoring program encompasses the same constituents that were the focus of remediation activities at the site.
- Given that the Plan was originally submitted in 2003, EC recommends that the location of all monitoring points and wells be verified against as-built drawings.

Section 1.1 – New Landfills

- The Plan states that remediation steps will be required if analytical results show a "significant increase" in contamination. EC recommends that the Plan quantify what constitutes a significant increase. It is recommended that if the analytical results reveal contamination levels higher than the initial remediation criteria, that remedial action be put into place.
- Indian and Northern Affairs Canada should ensure that equipment is available to mobilize to site if required, if monitoring reveals that any earthworks are required (i.e. due to settling, erosion, etc... at landfills).

Section 1.3 – Interceptor Barriers

- The Monitoring Plan should clearly indicate that any silt collected by the barriers will be shipped off site for treatment/disposal, as all landfills on site are now closed.

Section 1.5 – Monitoring Schedule

- EC recommends that the full review of the monitoring data that will occur in the fifth year be submitted to the Nunavut Water Board and circulated to the distribution list for comment.

Consequently, EC recommends that the INAC 2003 Long-Term Monitoring Plan be updated to include the above original recommendations. In addition, EC further recommends adding the following new recommendations:

- Table 1 in the INAC 2003 Long-Term Monitoring Plan outlines the status of the estimated PCB mass on Resolution Island. EC recommends that this table be updated for each subsequent monitoring report.
- Even though the 2005 review mentioned that the locations for the monitoring points are to be verified against as-built drawings, EC recommends specifically that the maps of the sampling locations be included in an appendix. These maps should indicate photograph locations and the direction for all visual sampling locations.
- In addition, the INAC 2003 Long-Term Monitoring Plan should include at least the following elements: monitoring frequency, analytical parameters (should monitor for contaminants of concern or potential contaminants), appropriate detection limits (for comparison with appropriate guidelines and/or legislation), sampling methods and QA/QC procedures.
- EC noted that there are no references in the INAC 2003 Long-Term Monitoring Plan. Therefore, EC recommends that the guidelines and standards (i.e. OME Guidelines, Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated sites, etc.) that the project falls under be included in the appendix of the updated plan.

If there are any changes in the proposed plan, EC should be notified, as further review may be necessary. Please do not hesitate to contact me at (780) 951-8827 or Stacey.Lambert@EC.gc.ca with any questions or comments.

Yours truly,

Stacey Lambert
Environmental Assessment Coordinator, EPOD

cc: Carey Ogilvie (Head, Assessment & Monitoring, EPOD)
Jody Klassen (Toxic Substances Evaluator, EPOD)