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**RE: Transport Canada - NWB 1BR-LTU – Operation & Maintenance Plan**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada'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*.

Transport Canada has proposed the construction of a land treatment unit lined with a synthetic geomembrane for treatment of petroleum hydrocarbon contaminated soil at the Iqaluit airport with a capacity of 7500m<sup>3</sup>. Transport Canada has submitted an Operation & Maintenance Plan as a requirement of Part E, Item 5 of their current water license NWB 1BR-LTU.

Environment Canada has reviewed the submitted Operation & Maintenance Plan and is pleased to provide technical advice relative to the design, siting, construction, operation, monitoring and eventual decommissioning of soil treatment facilities. Due to the harsh climate conditions, successful remediation of hydrocarbon contaminated soils in the North requires careful adherence to an appropriate site specific plan. The Plan submitted appears to be carbon-copy of the generic *Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils*. While the plan provides an excellent framework for the operation and maintenance of a LTU in the North, EC recommends that site specific procedures be developed by Transport Canada for the Iqaluit Land Treatment Unit. Some of the areas that should be up-dated include:

- Inspection and maintenance of the landfarm in ensuring its effectiveness
- Microbial population density, frequency of aeration, moisture content of soil, depth of piles/windrows
- Sampling protocol for end of treatment including intended final end use of soil
- Security of the site
- Methodology for treating, sampling and releasing leachate and or pond water from LTU.
- Procedure for snow removal/treatment prior to spring melt
- Operating period
- Decommissioning including removal and disposal of synthetic liner.

Given the importance of this Plan to the successful remediation of the contaminated soils in the LTU, EC recommends that the plan be revised and resubmitted for approval. If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to

contact me with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at [cindy.parker@ec.gc.ca](mailto:cindy.parker@ec.gc.ca).

Yours truly,

***Original signed by***

Cindy Parker  
Environmental Assessment Technician

cc: (Colette Spagnuolo, Environmental Assessment & Contaminated Sites Specialist, Environment Canada, Iqaluit)