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Environmental Protection Operations Directorate
Prairie and Northern Region (PNR)
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife NT X1A 2P7

August 2, 2013

EC file: 6600 000 048 004

NWB file: 1BR-NUN1217

Phyllis Beaulieu, Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven NU X0B 1J0

Via e-mail: licensing@nunavutwaterboard.org

Attention: Ms. Beaulieu

RE: 130704 1BR-NUN1217 Amendment Application - Nunatta Environmental Services Inc. - Qikiqtani Region

Environment Canada (EC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned project proposal and is submitting comments on mitigation measures as well as other matters of importance to the project proposal as requested by the NWB. EC's specialist advice is provided pursuant to the *Canadian Environmental Protection Act 1999*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Nunatta Environmental Services Inc. is proposing to amend their current water licence to account for two projects; the replacement of the liner for land farm cells one and two from a 20mil liner to a new, stronger 40mil liner, as well as the extension of cell two. The first stage of the project will focus on cell two, with the old liner to be removed and replaced at the same time as the length of cell two is extended to match that of the adjacent cells. The Proponent estimates the second stage of the project which includes the replacement of the liner in cell one will have to wait until the following year.

Based on a review of the license application and supporting materials, EC provides the following comments for the NWB's consideration:

General

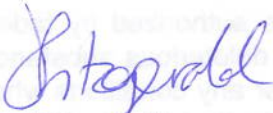
1. Subsection 36(3) of the *Fisheries Act* specifies that, unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The definition of a deleterious substance (Subsection 34(1) of the *Fisheries Act*) includes "any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of

degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water." Subsection 36(3) makes no allowance for a mixing or dilution zone at the point of deposit.

2. Please note that according to the Aboriginal Affairs and Northern Development Canada's (AANDC) "Guidelines for Spill Contingency Planning" (April 2007), available at <http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253>, all releases of harmful substances, **regardless of quantity** are to be reported to the NWT / NU 24-hour Spill Line, (867) 920-8130 if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.
3. The Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils (SAIC, 2005) should be consulted as they contain landfarming specifics including minimum distances from landfarms to surface waters (500 m). Reference: SAIC Canada. 2005. Federal guidelines for landfarming petroleum hydrocarbon contaminated soils.
4. With respect to the remediation of petroleum hydrocarbon contaminated soils, please note that EC has a number of documents available that references design, siting, operation, monitoring, sampling and analytical methods, decommissioning and closure as well as record keeping and reporting for cold climate land farming/bioremediation facilities. Please contact this office if you wish a copy of any of these:
 - Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils. SAIC Canada (Science Applications International Corporation), December 2005
 - Bioremediation of Petroleum Hydrocarbons in Soil and Groundwater Under Cold Climate Conditions: A Review, Implications for Applications in Canada , Dale Van Stempvoort and Pamela Grande, National Water Research Institute in Burlington, December 2005
 - Cold Climate Bioremediation: A Review of Field Case Histories. Pamela Rogers, Research Assistant, Department of Civil & Environmental Engineering, University of Alberta, July 2005

Should you require further information, please do not hesitate to contact me at 867-669-4746 or jane.fitzgerald@ec.gc.ca.

Sincerely,



Jane Fitzgerald
Environmental Assessment Coordinator

cc: Yongshu Fan, Senior EA Coordinator, Environmental Assessment and Marine Programs-PNR, EC
Lindsay Howes, EA Officer, EAMP-PNR, EC