Environment Canada Environnement Canada

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July 18, 2006

Our file:

Brian Duguay
Project Manager
Government of Nunavut

Via email at BDuguay@gov.nu.ca

Dear Mr. Duguay:

RE: Hydrostatic Testing – Whale Cove

As per your request on July 17, 2006 during our telephone conversation and subsequent email correspondences, I have reviewed the information submitted with the above-mentioned application on behalf of Environment Canada (EC). 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*.

Nunavut Construction Ltd. applied to the Nunavut Water Board (NWB) for an emergency water license to allow for the use of marine water and the disposal of waste to the marine environment during the hydrostatic testing of a 1,380 m^3 vertical tank farm located in the Hamlet of Whale Cove. After reviewing the application, the NWB determined that project does not require a water license. The NWB recommended that you follow-up with EC prior to commencement of the release of any waters to the marine environment to ensure compliance with applicable legislation.

Environment Canada is pleased to provide the following advice for incorporation into your hydrostatic testing project:

- The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition 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, is prohibited.
- Environment Canada is pleased that the tank sludge and hydrocarbon residuals will be contained and sent for disposal at an approved facility. Environment Canada recommends that the proponent ensure that all hazardous waste manifesting and tracking requirements under the *Nunavut Environmental Protection Act* and *Transportation of Dangerous Goods Act* are adhered to.
- It is recommended that the results of the effluent sampling be submitted to Environment Canada rather than Fisheries and Oceans Canada. Under a Prime Ministerial Instruction (1978) and a Memorandum of Understanding (1985), EC administers and enforces those aspects of the *Fisheries Act* dealing with the prevention and control of pollutants affecting fish. The results can be submitted to my attention at the coordinates listed above. It is recommended that at least one sample (plus associated QA/QC samples) be collected for each tank of discharge water that is accumulated.
- It is noted that effluent will be passed through a hydrophobic sorbent filter and a granular activated carbon filter to remove BTEX parameters. Environment Canada is supportive of this treatment, and recommends that the filters be disposed of with the sludges and wastes at an approved disposal facility.

- It is indicated that the samples will be tested for BTEX, pH, major ions, conductivity, TSS, hardness, TPH and specific metals. Samples should be taken after the effluent has been treated through the filters noted above.
    - Arsenic is included twice in the list of metals to be analyzed. Perhaps aluminum was intended to be included?
- Environment Canada recommends that effluent not be discharged to the marine environment unless the CCME water quality guidelines for the protection of aquatic life in the marine environment are met. The available guidelines for the parameters listed in the application are provided below for ease of reference:

Parameter	CCME Water Quality Guidelines for the Protection of Aquatic Life - Marine
Physical parameters	
pH	7.0-8.7
Conductivity	-
Hardness	-
TSS	Maximum increase of 25 mg/L from background for any short-term (i.e. less than 24 h period)
Petroleum Hydrocarbons	
Benzene	110 µg/L
Toluene	215 µg/L
Ethylbenzene	25 µg/L
Xylene	-
Total Petroleum Hydrocarbons	-
Metals	
Lead	-
Mercury	0.016 µg/L
Arsenic	12.5 µg/L
Chromium	56 µg/L (trivalent form)
Cadmium	0.12 µg/L
Copper	-
Aluminum	-
Zinc	-
Iron	-
Major Ions	
Specific ions not specified in application	

- Erosion protection measures should be used at the discharge point to prevent sedimentation of adjacent waterbodies.

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) 975-4639 or by email at colette.spagnuolo@ec.gc.ca.

Yours truly,

Original signed by

Colette Spagnuolo
Environmental Assessment / Contaminated Sites Specialist

cc: (Stephen Harbicht, Head, EA North, Environment Canada, Yellowknife)