Our reference
IQALUIT-#781147

February 20, 2013

Your reference
1BH-PSC----

Megan Porter
Licensing Administrator Assistant
Nunavut Water Board
GJOA HAVEN, NU X0E 1J0

Re: Aboriginal Affairs and Northern Development Canada review of Inukshuk Corporation Ltd.'s Application for a Type 'B' Industrial Water Licence to support their Coral Harbour Petroleum Systems Upgrade Project (Hydrostatic Testing)

Dear Ms. Porter:

Thank you for your email of February 6, 2014, concerning the above mentioned application. A memorandum is provided for the Board's consideration. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4555 or email at david.abernethy@aandc-aadnc.gc.ca for further information.

Regards,

David W. Abernethy

Digitally signed by David W. Abernethy
DN: cn=David W. Abernethy, o=Aboriginal Affairs and Northern Development Canada, ou=Nunavut Regional Office, email=david.abernethy@aandc-aadnc.gc.ca, c=CA
Date: 2014.02.21 16:59:41 -05'00'

David Abernethy
Regional Coordinator
Water Resources Division
Resource Management Directorate
Aboriginal Affairs and Northern Development Canada
IQALUIT, NU X0A 0H0

Encl.

c.c.: Daniel Taukie, Water Resources Intern, AANDC Nunavut
Murray Ball, Manager of Water Resources, AANDC Nunavut
Erik Allain, Manager of Field Operations, AANDC Nunavut
Phyllis Beaulieu, Manager of Licensing, NWB

Memorandum

To: Megan Porter, Nunavut Water Board

From: David Abernethy, Aboriginal Affairs and Northern Development Canada

CC: Daniel Taukie (AANDC), Murray Ball (AANDC), Erik Allain (AANDC), and Phyllis Beaulieu (NWB)

Date: February 21, 2014

Re: **New Water Licence Application, #1BH-PSC----**

Proponent: **Inukshuk Corporation Ltd.**
Project: **Coral Harbour Petroleum Systems Upgrade Project (Hydrostatic Testing)**

Comments:

A. Background

On February 6, 2014, the Nunavut Water Board (NWB or Board) provided notification of Inukshuk Construction Ltd.'s (the proponent) application for a new water licence in support of their Coral Harbour Petroleum Systems Upgrade Project. A Type 'B' Industrial water licence for hydrostatic testing purposes has been requested with a five month term (June to November 2014).

The proponent requires the use of freshwater to test the retention capacity of a newly constructed 1,900 m^3 steel fuel tank. This tank is situated within a bermed fuel storage facility. A total of 1,900 m^3 of water is required and will be acquired from an adjacent lake (a maximum of up to 300 m^3 will be pumped per day when filling the tank). This water will be released into a field south of the fuel storage facility once the testing program is completed. The field slopes toward the ocean. There are no plans to test the quality of this water before it is discharged because it is not expected to undergo any significant change. A diagram titled, "Test Water Solid Particle Collector" is included in the application. It is understood that this pertains to a treatment system for the removal of suspended sediments.

Interested parties were asked to review this application and provide comments by March 8, 2014.

B. Results of review

On behalf of Aboriginal Affairs and Northern Development Canada, the following comments and recommendations are provided:

1. **Withdrawal of Water from Adjacent Lake**

   Comment: The proponent has not provided an assessment on whether the planned water withdrawal will impact the source lake's storage capacity. The only information provided is satellite imagery on the portion of the lake situated near the fuel storage facility.

Recommendation: The proponent should provide a general assessment on whether the planned water withdrawal will impact the source lake's storage capacity. I don't expect that this will be the case but further information should be provided (e.g., topographic map showing entire lake and surrounding area, surface area data, and volume).

2. Fuel Management and Spill Contingency Provisions

Comment: If not managed properly fuel used to power the water pump's generator can contaminate soil and water if spilled.

Recommendation: As a minimum, the licence should include the following fuel management and spill contingency provisions:

- All fuel storage containers, including the generator, should be equipped with secondary containment; and
- The proponent must immediately report any spills where the spill is of an amount equal to or greater than the amount set out in Schedule B of Nunavut's Spill Contingency Planning and Reporting Regulations (http://env.gov.nu.ca/sites/default/files/Spill%20Planning%20and%20Reporting%20Regs.pdf)

3. Discharging Water of onto the Land and into the Ocean

Comment: Without adequate control measures water released from the newly constructed fuel tank can destroy vegetation and erode soil when discharged onto the land. Direct discharge to the ocean should be considered as the water quality should not be harmful to aquatic life in the marine environment.

Recommendation: The licence should allow for the discharge of water from the newly constructed fuel storage tank onto the land and into the ocean. When discharging water onto the land sediment and erosion control measures should be implemented to prevent vegetation damage, soil erosion, and the entry of sediment into the ocean. Additionally, effluent discharge procedures should be managed accordingly for land based discharges (i.e., flow rate, energy dissipation, etc.).

Prepared by David Abernethy and Daniel Taukie