



Nunavut Regional Office
Operations Directorate
Water Resources Division
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File #9545-2-3.3BC.DYEA
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March 4, 2009

Via Email

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0E 1J0

**Subject Water License #3BC-DYE----, Nasittuq Corporation, Cape Dyer
Project, Qikqtani Region, New Application**

Dear Phyllis,

Please be advised that on behalf of Indian and Northern Affairs Canada (INAC), I have reviewed the above referenced Type B Water License Application submitted by Nasittuq Corporation to the Nunavut Water Board for approval.

A Technical Intervention Memorandum (attached) is provided to the Board for consideration.

Should you have any questions regarding this submission, feel free to contact me at 867-975-4555 or David.Abernethy@inac-ainc.gc.ca.

Regards,
David W. Abernethy

Cc. Tanya Trenholm, Water Resources Division Manager - Acting
Kevin Buck, Water Resources Division Manager
Bernie MacIsaac, Field Operations Division Manager

Technical Review Memorandum

Date: March 4/09

To: Phyllis Beaulieu, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada, Water Resources Division, Iqaluit, NU

Re: **Water License #3BC-DYE----, Nasittuq Corporation, Cape Dyer Project, Qikqtani Region, New Application**

A. Description

The Nunavut Water Board (NWB or Board) received a Type B water license application from the Nasittuq Corporation (Nasittuq) on Oct. 3/08 to allow for water use and waste disposal associated with the operation and maintenance of Canada's North Warning System Long Range Radar Site #DYE-M (Cape Dyer). The Cape Dyer Project is an unmanned radar site used by the Department of National Defence (DND) to gather information concerning airborne activity within the arctic surveillance area. This site is located on Baffin Island and has coordinates of 66°40'05 north latitude, 61°21'13" west longitude. The NWB requested comments from interested parties with regard to this application on Jan. 28/09.

The Department of National Defence currently holds a Type B water license, #3BC-DYE0409, allowing for water use and waste disposal activities associated with the operation and maintenance of the Cape Dyer Project. The water license application submitted by Nasittuq is intended to change the licensee for this project, in terms of its operation and maintenance, from DND to Nasittuq.

The application includes the following documents:

- Cover letter dated Sept. 30/08
- Water License Application Form
 - Annex A – Site Plan Drawings
 - Annex B – Environmental Evaluation
- Supplementary Questionnaire
 - Annex A – Dec. 6/07 Letter to D. Filiatrault
 - Article A2 – Infrastructure and Scope of Work
 - Annex B – Site Plan Drawings
 - Annex C – Aerial Photo
 - Annex D – Spill Contingency Plan
 - Annex E – MSDS Sheets
- English and Inuktitut Executive Summaries

- Letter dated Oct. 14/08 with drawings attached
- Letters dated Nov. 28/08 and Jan. 12/09 – Responses to Issues and Concerns
- Site Specific Spill Contingency Plan for DYE-M, dated Nov. 25/08
- Insurance Cover Note, dated Sept. 28/06

In its January 28/09 notice of Nasittuq's water license application, the NWB requested interested parties to provide comments on the followings topics,

1. *Owner vs. Operator Responsibility for Site Remediation;*
2. *Adequacy of Amount and Form of Proposed Security; and,*
3. *Request to Treat Stamped and As-built Drawings of Tank Farms as Confidential.*

B. Comments / Recommendations

1. General

- Terms and conditions of existing licence #3BC-DYE409 issued to DND should be incorporated into the new licence applied for by Nasittuq with some exceptions.
- There should be no open burning of plastics, wood treated with preservatives, electrical wire, Styrofoam, asbestos, or painted wood. The reason for this is to prevent or minimize impacts to surface waters from the deposition of wastes associated with incomplete combustion and the leaching of ash residue through run-off.

2. Owner vs. Operator Responsibility for Site Remediation

- Defence Canada Construction's (DCC) water license #1BR-DYE0409, is specific to site remediation activities associated with the Distant Early Warning (DEW) Line Clean-up Project. As such, INAC supports a separation of licensing in this instance.

3. Adequacy of Amount and Form of Proposed Security

- INAC recommends that the Board impose a license condition that requires Nasittuq to provide Cover Notes / up-to-date proof of environmental liability insurance on an annual basis. This can be included as an Annual Report requirement.

4. Request to Treat Stamped and As-built Drawings of Tank Farms as Confidential

- At this time, INAC does not have any concerns with regard to Nasittuq's request to have stamped and as-built drawings of the Cape Dyer Project's fuel tank farm treated by the NWB as confidential.

5. Sewage Treatment

- Sewage generated at the Cape Dyer Project during "ramp-up" conditions is collected in a tank and then discharged from an outfall pipe to a designated area. Up to ten (10) cubic metres are discharged at one time from two (2) to five (5) times a year. An incineration-toilet is also available for use. Any ash that is generated from this toilet is disposed in the on-site landfill facility.

Part D, Item #5 of water license #3BM-DYE0409 requires the Licensee to manage all sewage through the use of Incinolet toilets, and dispose of all resulting ash. This condition should continue to be applied. It is understood that sewage currently discharged to the "designated area" does not receive treatment and as a result, can impact surface water in the receiving environment. If this is the case, such practices must not continue.

6. Greywater Treatment

- Part D, Item #4 of Water license #3BC-DYE0409 requires that all greywater be discharged and contained in a sump located at least thirty (30) metres from the high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created. INAC recommends that this condition continue to be applied in a new license held by Nasittuq.

7. Spill Contingency Plan

- The Project's Spill Contingency Plan should include a copy of the Government of Nunavut's *Spill Report Form*. This form must be completed and submitted when hazardous material/fuel spills are reported through the 24-hour Spill Report Line (Fax 867-873-6924, Telephone 867-920-8130).
- INAC recommends that secondary containment measures be implemented for all fuels stored on-site.

- Remote monitoring of fuel levels and leak detection should be installed on fuel storage tanks.

8. On-site Landfill Facility

- Nasittuq states in their application that non-hazardous materials will be disposed of in an approved on-site landfill facility. There is no information regarding this landfill in the submitted application. Nasittuq must submit a site diagram indicating the landfill location at a minimum. Furthermore, if Nasittuq is proposing to use a landfill site that is approved through the DCC site remediation water licence # 1BR-DYE0409, then written permission to deposit waste in this landfill facility must be submitted to the NWB. It is noted that the DCC site remediation licence expires on May 31/09. Therefore, in addition, Nasittuq should provide a comprehensive waste management plan to the Board for approval within 3 months of the license issuance. The plan must contemplate waste disposal options should the landfill be closed and/or backhauling of wastes for disposal at an approved facility.