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NUNAVUT IMALIRIYIN KATIMAYINGI  
NUNAVUT WATER BOARD  
OFFICE DES EAUX DU NUNAVUT

## WATER LICENCE APPLICATION FORM

Application for: (check one)

New       Renewal       Amendment       Assignment       Cancellation

**LICENCE NO:**

(for NWB use only)

<p><b>1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE</b></p> <p>North Warning System Office c/o National Defence Headquarters 101 Colonel By Drive Ottawa, Ontario K1A 0K2 Attn: Major A. Cameron - R&amp;CS 3-4</p> <p>Phone: <u>(613) 998-8602</u> Fax: <u>(613) 998-9261</u> e-mail: <u>Cameron.AD@forces.gc.ca</u></p>	<p><b>2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)</b></p> <p><u>The Same</u></p> <p>Phone: _____ Fax: _____ e-mail: _____</p>
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<p><b>3. LOCATION OF UNDERTAKING</b> (describe and attach a topographical map, indicating the main components of the Undertaking)</p> <p><b>CAM-M - Cambridge Bay -NWB6 CAM0409 – Type “B” – Existing Licence</b></p> <p>Latitude: (69° 06' 52" N)      Longitude: (105° 07' 14" W) NTS Map Sheet No. <u>N/A</u>   Scale: <u>N/A</u></p>
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<p><b>4. DESCRIPTION OF UNDERTAKING</b> (attach plans and drawings)</p> <p><i>DND/NWSO Long Range Radar Station</i></p>
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<p><b>5. TYPE OF PRIMARY UNDERTAKING</b> (A supplementary questionnaire <u>must</u> be submitted with the application for undertakings listed in <b>“bold”</b>)</p>
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<p><input type="checkbox"/> <b>Industrial</b></p> <p><input type="checkbox"/> <b>Mining and Milling</b>(includes exploration/drilling)</p> <p><input checked="" type="checkbox"/> <b>Municipal</b> (includes camps/lodges)</p> <p><input type="checkbox"/> Power</p>	<p><input type="checkbox"/> Agricultural</p> <p><input type="checkbox"/> Conservation</p> <p><input type="checkbox"/> Recreational</p> <p><input type="checkbox"/> Miscellaneous (describe below):</p>
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See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

**6. WATER USE**

<input checked="" type="checkbox"/> To obtain water	<input type="checkbox"/> Flood control
<input type="checkbox"/> To cross a watercourse	<input type="checkbox"/> To divert a watercourse
<input type="checkbox"/> To modify the bed or bank of a watercourse	<input type="checkbox"/> To alter the flow of, or store, water
<input type="checkbox"/> Other (describe):	

**7. QUANTITY OF WATER INVOLVED** (cubic metres per day including both quantity to be used and quality to be returned to source)

**Water use**  100m<sup>3</sup>/day or less  
 Greater than 100m<sup>3</sup>/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

*Approximately 2,190,000 liters per year*

**Water returned to source**  
 \_\_\_\_\_ m<sup>3</sup>/day

**8. WASTE** (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- Sewage – Sewage (blackwater) and grey water are both handled by a tertiary wastewater treatment system, Cycle-let. Some of the treated water is recycled as urinal/toilet flush water; the rest goes to the designated grey water outfall area.
- Waste oil – Is retrograded to a licensed disposal facility located outside of Nunavut every year.
- Solid Waste – Solid waste is sent to the Cambridge Bay community landfill twice a week. Approximately 1 to 1.4 cubic meters per day of solid waste is generated.
- Greywater – Sewage (blackwater) and grey water are both handled by a tertiary wastewater treatment system. See “Sewage” description above.
- Hazardous – Hazardous waste is retrograded to a licensed disposal facility located outside of Nunavut every year.
- Sludges
- Bulky Items/Scrap Metal – These items are stored on a pallet line and retrograded for disposal outside of Nunavut as required, typically every two to four years.
- Other describe:

**9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing address and location; attach if necessary)

**Not applicable - Department of National Defence(DND) Property**

**Land Use Permit**

DIAND  Yes  No If no, date expected \_\_\_\_\_

Regional Inuit Association  Yes  No If no, date expected \_\_\_\_\_

Commissioner  Yes  No If no, date expected \_\_\_\_\_

**10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** (direct, indirect, cumulative impacts, etc.)

NIRB Screening       Yes     No    If no, date expected

Reference: Monenco-Eyretchnics Group October 1987 - Initial Environmental Evaluation of the North Warning System Project - Eleven Long Range Radar Sites and the Short Range Radar Development Site - Volume One.

**11. INUIT WATER RIGHTS**

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

The project will NOT substantially affect the quality, quantity, or flow of water through Inuit Owned Lands.

**12. CONTRACTORS AND SUB-CONTRACTORS** (name, address and functions)

Nasittuq Corporation (NWS Facility Manager)  
Suite 100, 170 Laurier Ave. W., Ottawa, ON K1P 5V5

**13. STUDIES UNDERTAKEN TO DATE** (list and attach copies of studies, reports, research, etc.)

See Box 10 above.

**14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN**

Supplementary Questionnaire (where applicable: see section 5)     Yes     No If no, date expected - **Previously Provided**

Inuktitut and/or Inuinnaqtun/English Summary of Project     Yes     No If no, date expected - **Previously Provided**

Application fee of \$30.00 (Payee Receiver General for Canada)     Yes     No If no, date expected - **N/A**

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)     Yes     No If no, date expected - **N/A**

**15. PROPOSED TIME SCHEDULE** (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

one year or less (or)     Multi Year

Start Date: September 01, 2009    Completion Date: September 01, 2019

**A. Cameron**  
Name (Print)

**Major**  
Title (Print)

  
Signature

**30 July 2009**  
Date

**For Nunavut Water Board office use only**

**APPLICATION FEE**      Amount: \$ \_\_\_\_\_      Pay ID No.: \_\_\_\_\_

**WATER USE DEPOSIT**    Amount: \$ \_\_\_\_\_    Pay ID No.: \_\_\_\_\_

## **CAM-M**

The following highlights some areas of particular interest for this application, which we feel are appropriate for this new license, or which we have noted while administering the current license:

### **1. Sewage Handling System and Effluent Sampling Point CDL-2**

The sewage (blackwater) and greywater are both handled by a tertiary wastewater treatment system called Cycle-Let ® located in the sewage treatment plant at CAM-M. This system is described in the Exploration/Remote Camp Supplementary Questionnaire (previously provided). In short, this system treats sewage to the point where the end product is water. After treatment, the system recovers this water for toilets and urinals, with excess discharge to an outfall. The sewage treatment system is monitored by on-site personnel and is maintained by the Original Equipment Manufacturer (“OEM”) on a quarterly basis to ensure that it is functioning within specification. The current water license NWB6BCAM0409 – Type “B” (“Existing License”) requires that the effluent be sampled in the months of May through August inclusive, with the parameters to test for also stated in the license.

We are requesting that these tests be conducted quarterly throughout the year, as we believe that this will give a better indication that the system as a whole is in fact functioning within specification. Although the effluent is essentially water, we agree that the parameters to be sampled for should be the same as those required by the Existing License. The location of the system and the sample point CDL-2 are shown on the Site Plan as Annex B to the Exploration/Remote Camp Supplementary which was previously provided.

### **2. Raw Water Monitoring Point CDL-1**

As per the Site Plan referenced above, we wish to confirm that the monitoring point for water intake, CDL-1, is at the raw water storage tank, and not at the water lake itself. The water meter we have installed is inside the building on the raw water fill line. The meter is installed here for ease of reading and maintenance. We trust this is acceptable.

### **3. Emergency Response and Spill Reporting**

We request that the Nunavut Water Board issue the new licence requiring spill reports based on the minimum reportable quantities of Schedule “B” of the Spill Contingency Planning and Spill Reporting Regulations as shown on the web site of the Nunavut Department of the Environment. The Existing License calls for the reporting of all spills. Current policy is to report all spills internally, regardless of volume. This information is used to determine if there are any deficiencies in the Petroleum, Oil & Lubricants (POL) system, e.g. pressure relief values required or not working, flex hoses which may be weeping indicating they require replacement, etc. As a result we

have spill reports for as little as 0.1 litres. Upon further review of the Spill Contingency Planning and Spill Reporting Regulations, it is noted that spills are to be reported as per Schedule “B”. As an example, the reportable limit for flammable liquids is 100 litres. By following the minimum reportable quantities of Schedule “B”, we will be in compliance to the standards set by the Nunavut Department of the Environment.