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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN

Effective January 1, 2004

WATER LICENCE APPLICATION FORM

Application for: (check one)

_✓__ New __ Amendment ___Renewal ___Assignment

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Philip Warren, P.Eng., PMP, Environmental Officer
Defence Construction Canada
Constitution Square, Suite 1720
350 Albert Street
Ottawa, ON K1A 0K3

Phone: 613-998-7288
Fax: 613-998-0468
E-mail: Philip.Warren@dcc-cdc.gc.ca

As administered by:
Eva Schulz, P.Ag., Environmental Scientist
2540 Kensington Road NW
Calgary, AB T2N 3S3

Phone: 403-270-9220
Fax: 403-270-0399
E-Mail:Eva.Schulz@uma.aecom.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Phone: _____
Fax: _____
e-mail: _____

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

The CAM-1 DEW Line site is located on the east central side of Jenny Lind Island in the Queen Maud Gulf in Nunavut, approximately 140 km southeast of the community of Cambridge Bay (Ikaluktutiak).

Latitude: 68°40'N Longitude: 101°43'W NTS Map No. 67B Scale 1:50,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

The purpose of the project is to complete the environmental cleanup of the CAM-1 site. The main components of the cleanup include the following:

- Demolition and removal of the existing site facilities;
- Closure and remediation of existing landfills;
- Construction of two new landfills for the disposal of contaminated soils and non-hazardous debris generated as a result

of the clean up;
- Excavation and either landfilling or treatment of contaminated soils;
- Removal of surface debris; and,
- Physical restoration of the site to as natural a state as practical.

A detailed Project Description of the work to be completed at CAM-1 is included with the application.

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in **"bold"**)

___ **Industrial**
___ **Mining and Milling**
___ **Municipal** (includes camps/lodges)
___ Power
___ Agricultural
___ **Conservation**
___ Recreational
_✓_ **Miscellaneous** (includes exploration/drilling) (describe): Environmental clean up - please see Project Description.

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

_✓_ To obtain water
___ To modify the bed or bank of a watercourse
___ To alter the flow of , or store, water
___ To cross a watercourse
___ To divert a watercourse
___ Flood control
_✓_ Other (describe): See Project Description

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

It is estimated that the quantity of water to be used for running the camp, including contractor use, will be 52,000 litres/day. The camp requirements are approximately 12,000 litres/day, and construction use is estimated at 40,000 litres/day. Construction use will vary depending on daily activities, but typically includes dust suppression and granular material wetting. Water will be extracted from either the summer of winter water supply lake. The water will be pumped into a water tank on a truck using a portable pump and then transferred to a water storage tank at the Camp. As the contract for the work has not yet been awarded, the size of the tank is not available. No water will be returned to the source.

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

✓ Sewage
✓ Solid Waste
✓ Hazardous
✓ Bulky Items/Scrap Metal
✓ Waste oil
✓ Greywater
✓ Sludges
Other (describe):_____

As a minimum, the camp sewage will be directed to a two-cell lagoon situated a minimum of 100 metres from the camp, any natural drainage course and water bodies that support aquatic life. The sewage lagoons will be sized to provide an individual capacity for 45 days of wastewater storage or one half of the duration of the construction season, whichever is less. The maximum fluid depth shall not exceed one metre. The sewage effluent will be tested prior to discharge for the following parameters: Biological Oxygen Demand, Total Suspended Solids, Oil & Grease; Ammonia and pH. Greywater from camp operations will also be discharged into the sewage lagoon. Domestic garbage will be incinerated in an enclosed container (typically a forced-air incinerator) and the residual waste buried in the Non-Hazardous Waste Landfill. All excess fuels, camp equipment and facilities will be removed from the site after completion of the clean up activities. Any hazardous wastes encountered during the clean up operations will be packaged and stored according to TDG Regulations prior to shipment to a southern disposal facility. Waste oil is included as hazardous waste.

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

Land Use Permit

DIAND _✓_ Yes ___ No If no, date expected _____
A land use permit has been applied for, but has not yet been received.

Regional Inuit Association ___ Yes _N/A_ No If no, date expected _____

Commissioner ___ Yes _N/A_ 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 _____

The Project Description will be submitted to NIRB, and is attached to the application. The Project Description provides a summary of the proposed construction, potential environmental impacts and proposed mitigation measures.

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?

No

11. (Continued)

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?

N/A

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

The contract for the clean up work has not yet been tendered or awarded. Therefore, the names, addresses and functions of the contractors and sub-contractors involved in the clean up of the CAM-1 site are not available at this time.

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

During the radar upgrade program in the early 1990's, prior to the start of the DEW Line Clean Up, a number of environmental and engineering investigations were conducted at the DEW Line sites. The objectives of these studies were as follows:

- To identify the nature and extent of chemical contamination at the sites;
- To determine the possible impact of these contaminants on the Arctic ecosystem in general and the food chain in particular; and
- To develop practical environmental clean up strategies appropriate for the Arctic.

See Section 2.5 in the Project Description for a list of the previous assessments and investigations.

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 _____

Inuktitut/English Summary of Project _✓_ Yes __ No If no, date expected _____

Application fee $30.00 (Payee Receiver General for Canada) __ Yes _✓_ No If no, date expected _____

Water Use fee (see Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)
___ Yes ___ No If no, date expected _____

15. PROPOSED TIME SCHEDULE

_✓_ Annual (or) __ Multi Year

Start Date: June 2007 Completion Date: October 2010

Eva Schulz	**Environmental Scientist**		**February 28, 2006**
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board use only

APPLICATION FEE **Amount: $_____** **Pay ID No.:** _____

WATER USE DEPOSIT **Amount: $_____** **Pay ID No.:** _____