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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

File No: NWB5LON0308

August 5, 2003

Scott Hamilton
Environmental Officer
Defence Construction Canada Ltd.
122 Kent Street, 17th Floor
Ottawa, ON K1A 0K3
Email: hamiltsc@dcc-cdc.gc.ca

RE: NWB Licence No. NWB5LON0308

Dear Mr. Hamilton:

Please find attached Licence No. NWB5LON0308 issued to Defence Construction Canada by the Nunavut Water Board (**Motion #: 2003-07-09**) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

Sincerely,

Philippe di Pizzo
Executive Director

Enclosure: Licence No. **NWB5LON0308**

cc: Michelle McChristie, DIAND Iqaluit
Constantine Bodykevich, DIAND Inspector
Salamonie Shoo, QIA
Gladys Joudrey, Nunavut Impact Review Board
Josee Gallipeau, Nunavut Wildlife Management Board
Colette Meloche, Environment Canada
Mike Fournier, Environment Canada
Earle Baddaloo, Department of Sustainable Development
Jordan DeGroot, Department of Fisheries and Oceans



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

DECISION

LICENCE NUMBER: NWB5LON0308

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence dated March 3, 2003, made by:

Defence Construction Canada

to allow for water use and the disposal of waste during DEW Line Clean-up Activities at the FOX-2 DEW Line Site, Longstaff Bluff, Baffin Island, Nunavut. With respect to this application, the NWB gave notice to the public that Defence Construction Canada had filed an application for a water licence.

DECISION

In accordance with S. 13.5.1 of the *Nunavut Land Claim Agreement* (NLCA), the application was forwarded to the Nunavut Impact Review Board, to determine whether the application required a review pursuant to S.12.4.1 of the NLCA. After having been advised by the Nunavut Impact Review Board that the application could proceed without a review pursuant to S. 12.4.4(a), the NWB decided that the application could go through the regulatory process.

After reviewing the submission of the Applicant and written comments expressed by interested parties, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Land Claims Agreement* and of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA), decided to waive the requirement to hold a public hearing and furthermore to delegate its authority to approve the application to the Chief Administrative Officer pursuant to S. 13.7.5 of the NLCA and S. 49(a) of the NWNSRTA and determined that:

Licence Number NWB5LON0308 be issued subject to the terms and conditions contained therein. (Motion #:2003-07-09)

SIGNED this 5th day of August, 2003 at Gjoa Haven, NU.

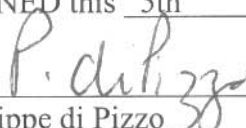

Philippe di Pizzo
Chief Administrative Officer

TABLE OF CONTENTS

DECISION	i
TABLE OF CONTENTS	ii
I. INTRODUCTION	1
II. GENERAL CONSIDERATIONS	1
A. Term of the Licence	1
B. Annual Report.....	1
C. Regulated Parameters.....	1
D. Emergency Response Planning	2
E. Monitoring Program.....	2
F. Quality Assurance/Quality Control Planning.....	2
III. LICENCE NWB5LON0308	3
PART A: SCOPE AND DEFINITIONS	4
PART B: GENERAL CONDITIONS.....	6
PART C: CONDITIONS APPLYING TO WATER USE.....	8
PART D: CONDITIONS APPLYING TO SEWAGE DISPOSAL.....	8
PART E: CONDITIONS APPLYING TO WASTE DISPOSAL.....	9
PART F: CONDITIONS APPLYING TO THE UNDERTAKING.....	9
PART G: CONDITIONS APPLYING TO EMERGENCY RESPONSE.....	10
PART H: CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS.....	11
PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION	11
PART J: CONDITIONS APPLYING TO MONITORING PROGRAMS.....	12

I. INTRODUCTION

On March 3, 2003, Defence Construction Canada filed an application with the Nunavut Water Board for a water licence for water use and waste disposal activities associated with DEW Line Clean-up Activities at the FOX-2 DEW Line Site located at Longstaff Bluff, Baffin Island, Nunavut. Pursuant to Article 13 of the Nunavut Land Claim Agreement (NLCA), the application was referred to the Nunavut Impact Review Board (NIRB) for environmental screening. In its May 13, 2003 screening decision, NIRB concluded that the project could proceed without an environmental review under Part 5 or 6. In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 55.1 and Article 13 of the *Nunavut Land Claims Agreement*, public notice of the application was posted. In this notice, the NWB invited the public and interested parties to comment on the application. No public concerns were expressed, and the NWB waived the requirement to hold a public hearing for the application. Authority to approve the application was delegated to the Chief Administrative Officer pursuant to S. 13.7.5 of the *Agreement*. After considering and reviewing the comments submitted by interested parties, the NWB has issued licence NWB5LON0308.

II. GENERAL CONSIDERATIONS

A. Term of the Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 45, the NWB may issue a licence for a term not exceeding twenty-five years. The NWB believes that a term of five years is appropriate. The 5-year licence will allow the Licensee to properly carry out the terms and conditions of the licence and to ensure that sufficient time is given to permit the Licensee to develop, submit, and implement the plans required under the licence to the satisfaction of the NWB.

B. Annual Report

The NWB requests that the Licensee provide an executive summary in Inuktitut of all studies and reports prepared under this Licence. The Board feels that it is important that the information collected and analyzed as requirements of this Licence be summarized in the appropriate languages and given back to the residents of nearby communities potentially affected by the project.

C. Regulated Parameters

Effluent quality criteria imposed in this Licence are consistent with the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories* (Northwest Territories Water Board; 1992), and follow advice received from both the Department of Indian and Northern Affairs and Environment Canada.

D. Emergency Response Planning

The Board generally requires that all Licensees prepare comprehensive Emergency Response Plans to establish a state of readiness to ensure a prompt and effective response to possible spills or system failure events. The site-specific Emergency Response Plan will assist the Licensee in responding to emergencies such that the impacts to water in particular and the environment and public health in general are minimized.

E. Monitoring Program

To measure the performance of the reclamation measures and to assess the mitigation of potential impacts to the environment associated with the appurtenant undertaking over the short and long term, the Board requests that the Licensee implement a site specific Monitoring Program. To accomplish these objectives, the NWB considers that additional detailed information from the Licensee is necessary.

F. Quality Assurance/Quality Control (QA/QC) Plan

The requirements to develop a QA/QC Plan imposed on the Licensee in this licence are for the purpose of ensuring the NWB that samples taken in the field as part of the Monitoring Program will maintain a high quality, so as to accurately represent the physical and chemical nature of the samples being taken.

LICENCE NWB5LON0308

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

DEFENCE CONSTRUCTION CANADA

(Licensee)

**Place de Ville, Tower B, 112 Kent Street,
Ottawa, ON K1A 0K3**

of

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water for a period subject to restrictions and conditions contained within this Licence:

NWB5LON0308

Licence Number

NUNAVUT 05

Water Management Area

**FOX-2 DEW LINE SITE, LONGSTAFF BLUFF,
BAFFIN ISLAND, NUNAVUT (68°54'N; 75°10'W)**

Location

WATER USE AND WASTE DISPOSAL

Purpose

**CAMP MOBILIZATION & OPERATION,
ENVIRONMENTAL CLEAN UP AND ASSOCIATED USES**

Description

40 CUBIC METRES DAILY

Quantity of Water Not to be Exceeded


August 5, 2003

Date of Licence

August 5, 2008

Expiry Date of Licence

Dated this 5th day of August 2003 at Gjoa Haven, NU.


Philippe di Pizzo
Chief Administrative Officer

PART A: SCOPE, DEFINITIONS & ENFORCEMENT

1. SCOPE

- i. This Licence entitles Defence Construction Canada (DCC) to use water and dispose of waste during operations required for the clean-up of the FOX-2 Distant Early Warning (DEW) Line Site, Longstaff Bluff, Baffin Island, Nunavut (68°54'N; 75°10'W). Activities include construction camp mobilization and operation, removal of petroleum impacted soil from the beach POL site, and temporary storage of the hydrocarbon-impacted soil in a pre-existing, bermed POL storage facility.
- ii. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and.
- iii. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives.

2. DEFINITIONS

In this Licence: **NWB5LON0308**

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*

“**Analyst**” means an Analyst designated by the Minister under Section 85 (1) of the *Act*;

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of waters or a deposit of waste is permitted by a licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement*;

“**Chief Administrative Officer**” means the Executive Director of the Nunavut Water Board;

“Emergency Response Plan” means the plan submitted with the application titled “Appendix II-Contingency Plans” (2003) to deal with unforeseen events;

“Greywater” means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“Inspector” means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

“Licensee” means the individual or organization to whom Licence NWB5GLA0308 is issued or assigned;

“Modification” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“Hazardous Waste” means waste classified as “hazardous” by Nunavut Territorial or Federal Legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act* at the time of clean-up;

“Nunavut Land Claims Agreement” (NLCA) means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*,” including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Sewage” means all toilet wastes and greywater

“Solid Waste” means non-hazardous waste, Type A soil and Type B soil;

“Monitoring Program” means a program established to collect data on surface water and groundwater quality to assess impacts to the environment of an appurtenant undertaking.

“Temporary Storage Facility” means the pre-existing, bermed POL storage facility identified on FOX-2 Longstaff Bluff Site Drawings (Appendix III of the application filed on March 3, 2003) used for temporary storage of all Type A and Type B soil excavated during due diligence activities;

“Type A Soil” means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of lubricating oil and grease;

“Type B Soil” means soil contaminated with hydrocarbons in which the primary petroleum

product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline;

“Toilet Wastes” means all human excreta and associated products, but does not include greywater;

“Waste” means waste as defined in Section 85 (1) of the *Act*;

“Water Supply Facilities” comprises the Water Supply Lake area and associated infrastructure designed to collect and supply water, as described in the Application for Water Licence filed by the Applicant on March 3, 2003, and contained in FOX-2 Longstaff Bluff Site Drawings (Appendix III)

3. ENFORCEMENT

- i. Failure to comply with this Licence will be a violation of the *Act*, exposing the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- ii. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- iii. Inspectors appointed under the *Act* enjoy-with respect to this Licence, and for the purpose of enforcing this Licence, and with respect to the use of water and deposit or discharge of waste by the licensee-all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31 of the year following the calendar year reported, which shall contain the following information:
 - i. The monthly and annual quantities (in cubic metres) of fresh water obtained from all sources;
 - ii. The monthly and annual quantities (in cubic metres) of material deposited in solid waste disposal facilities; {is there an active solid waste disposal facility?}
 - iii. A summary of any construction work, modification and major maintenance work carried out on the water supply and solid waste disposal facilities, including all associated structures;
 - iv. Tabular summaries for all data and information generated under the

- v. An analysis of data collected during the “Monitoring Program” and a brief description of any future studies planned by the Licensee;
 - vi. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - vii. A summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - viii. A list of unauthorized discharges and summary of follow-up actions taken;
 - ix. Any revisions to the approved “Emergency Response Plan”;
 - x. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - xi. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - xii. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - xiii. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported
- 2. Flow meters or other such devices used for measuring the volumes of water used shall be installed by the Licensee, and operated and maintained to the satisfaction of an Inspector.
- 3. Modifications to the “Monitoring Program” may be made only upon written approval of the Chief Administrative Officer.
- 4. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate area to inform the public of the location of the Water Supply Facility, the Temporary Storage Facility and the stations of the “Monitoring Program”. All postings shall be in the Official Languages of Nunavut and located and maintained to the satisfaction of an Inspector.
- 5. The Licensee shall ensure a copy of this Licence is maintained at the camp site office and at the site of operation at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(i) Chief Administrative Officer:

Executive Director
 Nunavut Water Board
 P.O. Box 119
 Gjoa Haven, NU X0B 1J0
 Telephone: (867) 360-6338
 Fax: (867) 360-6369

(ii) Inspector Contact:

Water Resources Officer
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4298
Fax: (867) 979-6445

(iii) Analyst Contact:

Taiga Laboratories
Department of Indian and Northern Affairs
4601 - 52 Avenue, P.O. Box 1500
Yellowknife, NT X1A 2R3
Telephone: (867) 669-2781
Fax: (867) 669-2718

6. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a **detailed executive summary in Inuktitut.**

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all freshwater for domestic and contractor-use purposes from the lake known as Water Supply Lake using the Water Supply Facilities or as otherwise approved by the Board.
2. The Licensee shall implement measures to prevent the deposition of dust and/or sediment arising from contractor activities or on-site vehicular travel into water.
3. The daily quantity of water obtained for all purposes shall not exceed 40 cubic metres.
4. The freshwater intake shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.

PART D: CONDITIONS APPLYING TO SEWAGE DISPOSAL

1. The Licensee shall discharge and contain all sewage 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 on water are created. The sump shall be treated with lime and covered with 0.5 m of native granular material prior to abandonment.

2. All pump out water from excavation and borrow pits shall be pumped to an area approved by an Inspector.

PART E: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall temporarily store all Type A and Type B soil excavated in the Temporary Storage Facility.
2. The Licensee shall incinerate all combustible waste, and shall ensure that all hazardous wastes generated through the course of the undertaking are disposed of in an approved waste disposal site located outside Nunavut.
3. The Licensee shall ensure that all non-combustible waste generated in the course of the undertaking is temporarily placed in secure on-site storage, for later disposal during final site abandonment and restoration or dispose of the material to an approved waste disposal facility.
4. The Licensee shall not deposit any waste in any body of water, or on the banks thereof, which may impair the quality, quantity, or flow of water.
5. Areas designated for waste disposal shall not be located within thirty (30) metres of the ordinary high water mark of any body of water, unless otherwise authorized.
6. All scrap metal, discarded machinery and parts, and other bulky material shall be disposed of in accordance with the plans submitted to the Board by the Licensee.

PART F: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall implement proper handling, storage and transportation procedures for hazardous materials during clean-up activities.
2. The Licensee shall minimize disturbance to terrain, permafrost and drainage during extraction of granular material, development and closure of landfills, movement of contractor's equipment and personnel around the site and removal of site debris.
3. Stream crossings shall be appropriately designed and constructed to minimize erosion or contamination of waterways.
4. The Licensee shall ensure that the existing creek channels are maintained at their normal width and depth to the extent possible, both during and after construction.

5. Granular materials and rock rip-rap used for any temporary stream crossings, approaches or as may be required for bank stabilization must be obtained from a source approved by an Inspector, and be clean and free of contaminants. Such material must not be removed or gathered from below the ordinary high water mark of the creek, stream or from any nearby water body.
6. All sites affected by construction or removal activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into watercourses located on or adjacent to the site, to the satisfaction of an Inspector.

PART G: CONDITIONS APPLYING TO EMERGENCY RESPONSE

1. The Licensee shall ensure that any fuels, chemicals, or wastes associated with this undertaking do not enter any waters. All fuel is to be stored at a location that is a minimum of thirty (30) metres from the ordinary high water mark of any water source.
2. The Licensee shall revise the approved Emergency Response Plan to reflect the following:
 - i. The addition of DIAND Water Resources and Environment Canada personnel to the spill response contact list in Nunavut; and
 - ii. The location (including GPS co-ordinates) of all fuel storage areas associated with the undertaking.
 - iii. The development of a contingency to provide emergency repairs to the Temporary Storage Facility, should said Facility fail.
3. The revision data requested in Part G, Item 1 shall be submitted to the Board within 30 days of issuance of the licence. The information may be submitted as an addendum to the original March 2003 Plan.
4. The Licensee shall revise the approved Emergency Response Plan annually to reflect changes in operation, technology and personnel. Any proposed modification shall be re-submitted to the Board for approval.
5. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - i. Employ the Emergency Response Plan;
 - ii. Report the spill immediately to the 24-Hour Spill Reporting Line (867) 920-8130 and to an Inspector; and
 - iii. Submit to an Inspector a detailed report on each occurrence no later than thirty (30) days after initially reporting the event.

PART H: CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS

1. The Licensee shall submit to the Board for approval design drawings stamped by a qualified engineer registered in Nunavut prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or wastes.
2. The Licensee may, without written approval from the Board, carry out modification to the water supply and waste disposal facilities provided that such modifications are consistent with the terms of this Licence and the following requirements are met:
 - i. The Licensee has notified the Board in writing of such proposed modifications at least sixty (60) days prior to beginning the modifications;
 - ii. Such modifications do not place the Licensee in contravention of the Licence and/or *Act*;
 - iii. The Board has not, during the sixty (60) days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - iv. The Board has not rejected the proposed modification.
3. Modifications for which all of the conditions referred to in Part H, Item 2 have not been met may be carried out only with written approval from the Board.
4. The Licensee shall provide to the Board as-built plans and drawings of the modifications referred to in Part H, Item 1 within ninety (90) days of completion of the modifications.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licensee shall submit to the Board six (6) months prior to the completion of onsite activities an Abandonment and Reclamation Plan to address contractor demobilization and site remediation operations.
2. The Licensee shall implement the Plan referred to in Part I, Item 1, as and when approved by the Board.
3. The Licensee shall revise the Abandonment and Reclamation Plan referred to in Part I, Item 2, if not acceptable to the Board. The revised Plan shall be submitted to the Board for approval within thirty (30) days after notification.

4. The Licensee shall complete all reclamation work within the time schedule specified in the Plan submitted to the Board, unless otherwise approved by the Board.
5. The Licensee shall restore and stabilize all areas affected by the undertaking upon completion of the work, to the satisfaction of an Inspector.

PART J: CONDITIONS APPLYING TO MONITORING PROGRAMS

1. The Licensee shall by September 30, 2003 submit to the Board for approval a “Monitoring Program” which shall include but not be limited to the following:
 - i. GPS coordinates of all surface and subsurface sampling points;
 - ii. Specific components of the visual, soil/water and thermal monitoring program;
 - iii. Sampling frequency; and
 - iv. Physical and chemical parameters for analyses;
2. The Licensee shall revise the “Monitoring Program” referred to in Part J, Item 1 if not acceptable to the Board. The revised Plan shall be submitted to the Board for approval within thirty (30) days after notification.
3. The Licensee shall thirty (30) days prior to any sampling, submit to the Board a Quality Assurance/Quality Control (QA/QC) Plan approved by an Analyst which addresses both field and laboratory requirements.
4. The QA/QC Plan referred to in Part J, Item 3 shall be implemented as approved by the Board.
5. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of “Standard Methods for the Examination of Water and Wastewater”, or by such other methods as approved by the Board.
6. All analyses shall be performed in a Canadian Association of Environmental Analytical Laboratories (CAEAL) Certified Laboratory, or as approved by the Board.