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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: 1BR-QIK1320

August 23, 2013

Tamera Van Dyck, Environment Manager
David Eagles, Project Manager
Defence Construction Canada
Director General Military Engineering
National Defence Headquarters
101 Colonel By Drive, Ottawa, ON K1A 0K2
E-mail: Tamara.VanDyck@dcc-cdc.gc.ca
David.Eagles@dcc-cdc.gc.ca

RE: NWB Renewal Licence No. 1BR-QIK1320

Dear Ms. Van Dyck and Mr. Eagles:

Please find attached Licence No. **1BR-QIK1320** issued to Defence Construction Canada by the Nunavut Water Board 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.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then Water use and Waste disposal must cease, or the Licensee will be in contravention of the Nunavut Land Claims Agreement. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment

process. The process and timing may vary depending on the scope of the amendment; however, a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.¹

Sincerely,



Thomas Kabloona
Nunavut Water Board
Chair

TK/sj/ri

Enclosure: Licence No. **1BR-QIK1320**
Comments – AANDC and EC

Cc: Qikiqtani Distribution List
Eva Schulz, AECOM Canada Ltd.

¹ Aboriginal Affairs and Northern Development Canada (AANDC) – Water Resources Division, May 17, 2013; and Environment Canada (EC) dated May17, 2013.

DECISION

LICENCE NO.: 1BR-QIK1320

This is the decision of the Nunavut Water Board (NWB) with respect to an application, dated February 14, 2013, for the renewal and amendment of a Licence made by:

DEFENCE CONSTRUCTION CANADA

to allow for the continued implementation of a post construction Landfill Monitoring Program at the former FOX-5 (Broughton Island) Distant Early Warning (DEW) Line site, located approximately 9 kilometres east of the Hamlet of Qikiqtarjuaq within the Qikiqtani Region of Nunavut at the following geographical coordinates generally:

Latitude: 67° 33" N

Longitude: 63° 49' W

DECISION

After having been satisfied that the application falls outside an area with an approved land use plan² and is exempt from the requirement for screening by the Nunavut Impact Review Board³ in accordance with Schedule 12-1 of the *Nunavut Land Claims Agreement (NLCA)*, the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and representations made by interested persons, 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 *NLCA* and of the *NWNSRTA*, decided to waive the requirement to hold a public hearing and determined that:

Licence No. 1BR-QIK0712 be renewed as Licence No. 1BR-QIK1320 subject to the terms and conditions contained therein (Motion No.: 2013-B1-035).

SIGNED this 23rd day of August 2013 at Gjoa Haven, NU.



Thomas Kabloona
Nunavut Water Board, Chair

² Nunavut Planning Commission (NPC) Land Use Conformity Determination, dated April 18, 2013.

³ Nunavut Impact Review Board (NIRB) Screening Exemption Decision, dated April 25, 2013.

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I. INTRODUCTION

The FOX-5 (Broughton Island) Distant Early Warning (DEW) Line site is a former auxiliary station located on the east coast of Cumberland Peninsula on Baffin Island, approximately 9 kilometres east of the Hamlet of Qikiqtarjuaq within the Qikiqtani Region of Nunavut. The site was decommissioned in 1991 following replacement of the DEW Line system by the more modern North Warning System (NWS) and the construction of a NWS facility in the vicinity of the former FOX-5 DEW Line site.

Following decommissioning of the FOX-5 DEW Line site, the demolition of site facilities and environmental clean-up of the site commenced. The clean-up activities, which lasted for the period 2001 to 2006, included the closure and remediation of two existing landfills and the construction of two Non-Hazardous Waste Landfills. The existing and new landfills include the Main Landfill, Middle Site Non-Hazardous Waste Landfill, Station Area Non-Hazardous Waste Landfill and the Tier II Disposal Facility.

The Licensee has indicated that the continued implementation of the three (III)-phase, landfill monitoring program be undertaken in accordance with any renewed licence issued for the project. Phase I, and Phase II monitoring, which are scheduled to last for approximately 25 years, are designed to collect sufficient information to assess and confirm the performance of the landfills from a geotechnical and environmental perspective. Phase III monitoring is expected commence after 25 years, and although the scope of that phase is yet to be developed, it is expected to be based on a 10-year monitoring interval.

The monitoring results obtained will be reviewed and recommendations will be provided to the Department of National Defence – Nunavut Tunngavik Incorporated (DND/NTI) Steering Committee by an Environmental Working Group (EWG) established to provide technical support to the Steering Committee. Decisions on whether to continue or terminate the monitoring program will likely be made after the 25-year period and following an assessment of performance carried out jointly by the DND and NTI.

II. PROCEDURAL HISTORY

The Nunavut Water Board (“NWB and Board) received on February 14, 2013 from AECOM Canada Ltd., on behalf of Defence Construction Canada and the Department of National Defence (DND) an application and supporting information for the renewal and amendment of Licence 1BR-QIK0712. The application included the following documents:

- Cover letter dated February 14, 2013;
- Application for Water Licence Amendment;
- Executive Summary, English and Inuktitut;
- Spill Contingency Plan and MSDS Sheets; and
- Landfill Monitoring Report Dated February 2013.

The above-mentioned application documents have been placed in the NWB's public registry and access provided through the NWB's FTP site using the following link (User name: "*public*" Password: "*registry*"):

<ftp://nunavutwaterboard.org/1%20PRUC/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-QIK0712%20FOX%205/>

The NWB distributed the application on April 17, 2013 for a thirty (30) day public review period, and comments were received from Aboriginal Affairs and Northern Development Canada (AANDC) and Environment Canada (EC). AANDC provided comments with respect to the spill contingency plan and the annual reports; however, no objections were expressed by the interveners, in principle, about any potential board decision that would result in issuance of a renewal Licence.

The original licence for the project, NWB5QIK0207, which allowed for the use of water and deposit of waste during the clean-up operations at the FOX-5 DEW Line site, was issued on May 30, 2002. On July 30, 2003, Licence NWB5QIK0207 was amended, as requested by the proponent, to capture changes associated with the waste disposal facilities under the licence.

Licence NWB5QIK0207 expired on May 30, 2007 and was renewed on August 12, 2007 as Licence 1BR-QIK0712 to support the implementation of the landfill monitoring program at the FOX-5 (Broughton Island) DEW Line site. The renewed licence expired on December 31, 2012.

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 applicant requested a seventeen (17) year renewal licence under which it plans to monitor, assess and confirm the stability of the landfills at the project site at specific intervals during the monitoring program. Given the current stage of the program, the Board has decided to issue the licence for a term of seven (7) years during which details pertaining to any significant changes that might be to require to the monitoring program would be determined and provided for consideration under the application for a potentially longer term renewal licence in the future.

B. Annual Report

Under the reporting section in the Licence, Part B, Item 1, the Licensee is required to submit, on an annual basis, a report that pertains to the activities carried out under the project. This information is kept in the NWB's public registry and made available to interested persons upon

request. In addition, the NWB maintains annual reporting information on its FTP site, which can be accessed using the following link (username: “**public**” and password: “**registry**”): <http://nunavutwaterboard.org/>.

According to the intervener submission received from Aboriginal Affairs and Northern Development Canada (AANDC), the annual reports for 2007, 2008, 2009, 2010, and 2012 were not available on the NWB’s ftp’s site for review. Prior to distributing the file for public comments, the NWB had indicated the apparent absence of specific Annual Reports required under the licence terms and conditions, and the NWB received confirmation from the Licensee that most of the reports in question, had been provided as part of the monitoring and/or annual reporting requirements under the licence. However, copies of the reports for 2009, 2010 and 2012 will be provided to the NWB in the near future. Once the reports are received, the NWB intends to review and provide the Licensee with some feedback under a separate correspondence.

C. Water Use

The Licensee has indicated that no camp facilities will be established on site; therefore, no Water use will be required under the project except for the purposes of sampling in accordance with the monitoring requirements in the licence. Accordingly, the NWB has not authorized the use of Water under the terms and conditions of this licence.

D. Deposit of Waste

The Licensee did not provide any details in the application with respect to the amount and types of Waste that is expected to be generated during continuation of the landfill monitoring program for the project. As such, the Licensee is not allowed to deposit any Waste without authorization from the Board.

E. Abandonment and Restoration

According to information provided by the licensee, the abandonment and restoration activities for the site have been completed since 2006. The Licensee initiated the post-construction monitoring program in 2007 and plans to continue doing so for a period of 25 years. Under the terms and conditions in the Licence applying to abandonment and restoration, the Licensee is required to remove all equipment and any facilities associated with the project upon completion.

F. Monitoring

The Monitoring program under this licence and potentially successive renewal licenses is scheduled to last up to 2030. The NWB has included a requirement for the Licensee to submit a Preliminary Phase II Monitoring Summary Report as part of the application to renew this Licence in 2020. The Report shall be prepared by a Geotechnical Engineer to summarize data collected during Phase I and II monitoring, and should assess the integrity of the Waste Disposal

Facilities. The Report shall address whether the facilities have performed as expected, whether they are encased in permafrost and how they are expected to perform over the long term. In addition, relevant recommendations should be included as deemed necessary. This requirement is detailed under Part J, Item 7 and will help the NWB and interested parties in assessing the effectiveness of closure and monitoring measures undertaken over the period for which the report is submitted.

Further, the licensee is required to carry-out monitoring in accordance with the details provided in the post-construction landfill monitoring program and the requirement of the DND-NTI agreement.

G. Spill Contingency Planning

The Licensee has included a Spill Contingency Plan (SCP) as part of its application documents, which the Board has approved with the issuance of the Licence.

The Board, having appropriately considered the Application, intervener's submission and the requirements associated with the nature of the undertaking, has accordingly set terms and conditions in this Licence to govern the FOX-5, Qikiqtarjuaq Landfill Monitoring Program.



NUNAVUT WATER BOARD WATER LICENCE RENEWAL

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)

101 COLONEL BY DRIVE, OTTAWA, ON K1A 0K2

(Mailing Address)

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

Licence Number/Type: 1BR-QIK1320 TYPE "B"

Water Management Area: NORTHWESTERN DAVIS STRAIT WATERSHED (50)

Project/Location: FOX-5, QIKIQTARJUAQ LANDFILL MONITORING PROGRAM
QIKIQTANI REGION, NUNAVUT

Classification: INDUSTRIAL UNDERTAKING

Purpose: MONITORING

Quantity of Water use not
to Exceed: NO WATER USE AUTHORIZED

Date of Licence Issuance: AUGUST 23, 2013

Expiry of Licence: AUGUST 22, 2020

This Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Thomas Kabloona
Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

- a. This Licence allows for implementation of a post-closure, Landfill Monitoring Program, for an undertaking classified as Industrial as per Schedule I of the *Regulations* at the FOX-5 (Broughton Island) DEW Line site located approximately 9 kilometres east of Qikiqtarjuaq, within the Qikiqtani Region, Nunavut.
- b. 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
- c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

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

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report or plan;

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Applicant**” means the Licensee;

“**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;

“**Effluent**” means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond or following a treatment process;

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act, s. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12;*

“**Final Discharge Point**” means the point at which the Licensee no longer exerts care and/or control over the quality and/or quantity of the Effluent from a treatment process;

“**Grab Sample**” means a single Water or wastewater sample taken at a time and place representative of the total discharge;

“**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;

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

“**Landfarm Facility**” means an area designed to biologically treat Type B soils, as described in the Application for Water License filed by the Applicant on May 23, 2007;

“**Licensee**” means the individual or organization to which Licence 1BR-QIK1320 Type “B” 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;

“**Monitoring Program**” means a monitoring program established to collect data on surface Water and groundwater quality to assess impacts to the freshwater aquatic environment of an appurtenant undertaking as described in the document entitled “Water Use Licence Amendment and Renewal FOX-5 Qikiqtarjuaq Landfill Monitoring”, dated February 2013;

“**Main Landfill**” means the existing landfill, monitoring wells, located approximately 1 kilometre northwest of the Station Area as described in the document entitled “Water Use License Amendment and Renewal, FOX-5, Qikiqtarjuaq Landfill Monitoring”, dated February 2013;

“Middle Site Tier II Soil Disposal Facility/Non-Hazardous Waste Landfill means the two-cell landfill, including the perimeter berm and monitoring wells, constructed along the road between the main station and the community of Qikiqtarjuaq for the purpose of containing non-hazardous debris derived from demolition and surface debris and Tier II soil as described in the document entitled “Water Use License Amendment and Renewal, FOX-5, Qikiqtarjuaq Landfill Monitoring”, dated February 2013;

“NTI Agreement” means the *'Agreement Between Nunavut Tunngavik Incorporated and Her Majesty the Queen in the Right of Canada, as Represented by the Minister of National Defence for the Clean-up and Restoration of Distant Early Warning Sites within the Nunavut Settlement Area-Environmental Provisions'* including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“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;

“Post Construction Monitoring Plan” means the plan entitled “Water Use Licence Amendment and Renewal FOX-5 Qikiqtarjuaq Landfill Monitoring,” dated February 2013;

“Regulations” means the *Nunavut Waters Regulations SOR 2013/69 18th April, 2013;*

“Sewage” means all toilet Wastes and Greywater;

“Solid Waste Disposal Facility” comprises the area and associated structures designed to contain solid Waste and to permanently isolate the contents of the disposal facility from the environment, as described in the Application for a Water Licence filed by the Applicant on May 23, 2007;

“Station Area Non-Hazardous Waste Landfill” means the landfill facility including the compacted perimeter berms and monitoring wells constructed east of the station area for the purpose of disposing non-hazardous Waste generated from the demolition of activities as described in the document entitled “Water Use License Amendment and Renewal, FOX-5, Qikiqtarjuaq Landfill Monitoring”, dated February 2013;

“Sump” means an excavation in impermeable soil for the purpose of catching or storing Water or Waste;

“Tier I Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier I in Appendix E of the NTI Agreement, including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table No.1);

“Tier II Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of the NTI Agreement including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table No.1);

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

“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 (F3 – F4 Fractions);

“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 (F1 – F2 Fractions);

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

“Waste Disposal Facilities” means all facilities designated for the disposal of Waste, and includes the Sewage Disposal Facilities, Solid Waste Disposal Facilities, and Landfarm Facility, as described in the Application for Water Licence filed by the Applicant on May 23, 2007.

3. Enforcement

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of Water and deposit or discharge of Waste by the licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported, which shall contain the following information:

- a. Tabular summaries for all data and information generated under the Post-construction monitoring program;
 - b. A review and analysis of data collected during the FOX-5, Qikiqtarjuaq landfill monitoring program and a brief description of any future studies planned by the Licensee;
 - c. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - d. The results of any review conducted and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements;
 - e. A summary of any studies requested by the Board that relate to wastewater reclamation, and a brief description of any future studies planned;
 - f. A list of unauthorized discharges and summary of follow-up actions taken;
 - g. If applicable, a description of any trenches and sumps excavated, including the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - h. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - i. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - j. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - k. Any other details on Water use or Waste disposal requested by the Board by November 1st of the year being reported.
2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
 3. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
 - (a) Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369
Email: licensing@nunavutwaterboard.org
 - (b) Inspector Contact:
Manager of Field Operations, AANDC
Nunavut District, Nunavut Region
P.O. Box 100

Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

4. 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.
5. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
6. This Licence is assignable as provided for in Section 44 of the *Act*.
7. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee is not authorized to use Water under the terms and conditions of this licence.
2. Streams cannot be used as a Water source unless authorized and approved by the Board in writing.
3. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body.
4. The Licensee shall not do anything that will cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
5. The Licensee shall implement sediment and erosion control measures to prevent the deposition of dust and/or sediment into Water, arising from contractor activities or on-site vehicular travel.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee is not allowed to discharge effluent from the facilities approved under the Licence unless written authorization is obtained from the Board.
2. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the site prior to any backhauling and disposal of

Wastes from the FOX-5, Qikiqtarjuaq Landfill Monitoring Program Project.

3. The Licensee shall backhaul and dispose of all Waste generated through the course of the operation at a licensed Waste disposal site.
4. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.

PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
2. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
3. The Licensee shall minimize disturbance to terrain, permafrost and drainage during movement of contractor's equipment and personnel around the site during post-closure monitoring activities.
4. All sites affected by sampling 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.
5. Licensee shall not deposit any Waste in any body of Water, or on the banks thereof.

PART F: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. No camp activities are authorized under the provisions of this Licence
2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
3. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water.

4. The Licensee shall not mobilize heavy equipment or vehicles unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. 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
 - d. the Board has not rejected the proposed Modifications.
2. Modification for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved with the issuance of this Licence the plan entitled "Spill Contingency Plan," received by the NWB with the application on February 14, 2013.
2. The Licensee shall submit together with the 2013 Annual Report an Addendum to the Plan referred to in Part H, Item 1, in the format set out by the Consolidation of Spill Contingency Planning and Reporting Regulations, R-068-93, that addresses or includes the following:
 - a. A detailed topographic map depicting project site and nearby Water bodies;
 - b. A copy of the NT-NU spill report form; and
 - c. The contact information AANDC's Manager of Field Operations.

3. Licensee shall ensure that any equipment maintenance and servicing is conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
4. All sumps and fuel caches shall be located a minimum of thirty one (31) metres above the ordinary High Water Mark of any adjacent Water body and inspected on a regular basis. The Licensee is encouraged to use some form of secondary containment on fuel and chemical storage associated with this undertaking.
5. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the AANDC's Manager of Field Operations at (867) 975-4295; and
 - c. Submit to the AANDC Water Resources Inspector on each occurrence, a detailed report including the GPS location, no later than thirty (30) days after initially reporting the event.

PART I: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION AND CLOSURE

1. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
2. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, Water pumps and lines, material and equipment prior to the expiry of this Licence.
3. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
4. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
5. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
6. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the

purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall monitoring the Waste Disposal Facilities in accordance with the post-construction landfill monitoring program filed with the Board as on February 14, 2013 and as outlined in the provisions and requirements of the Agreement between the Department of National Defence and the Nunavut Tunngavik Incorporated.
2. The Licensee shall submit as an addendum together with the annual report required for the period immediately following any changes or updates the Plan referred to in Part J, Item 1.
3. The Licensee shall conduct all sampling, sample preservation and analyses in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
4. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
5. The Licensee shall include in the Annual Report, required under Part B, Item 1, all monitoring results and information required by this Part.
6. The Licensee shall ensure that tabular summaries for all data and information generated under the “Monitoring Program”, as well as an analysis of data collected during the “Monitoring Program,” are provided to the Board in the Annual Report, in accordance with Part B, Item 1.
7. The Licensee shall submit a Preliminary Phase II Monitoring Summary Report as part of an application to renew this Licence in 2020. The Report shall be prepared by a Geotechnical Engineer and shall summarize data collected during Phase I and II monitoring, and include information on the integrity of the Waste Disposal Facilities. The Report shall also address whether the facilities have performed as expected and encased in permafrost. The report must include an assessment of how the facilities are expected to perform in the long term as well as appropriate recommendations.
8. An Inspector may impose additional monitoring requirements.

Table No.1
(From INAC Abandoned Military Site Remediation Protocol)
DEW Line Clean-up Criteria (DCC)^a

Substance	DCC Tier I^{bc}	DCC Tier II^d
Arsenic	-	30
Cadmium	-	5.0
Chromium	-	250
Cobalt	-	50
Copper		100
Lead	200	500
Mercury	-	2.0
Nickel	-	100
Zinc	-	500
PCB's	1.0	5.0

a. These criteria were adopted specifically for the cleanup of Arctic DEW Line Sites from the 1991 versions of the Quebec Soil Contamination Indicators and the Canadian Council of Ministers of the Environment Interim Canadian Environmental Criteria for Contaminated Sites.

b. Soil criteria are given in parts per million, ppm.

c. Soils containing lead and/or PCBs at concentrations in excess of DCC I, but less than DCC II, may be landfilled,

d. Soils containing one or more substrates in excess of DCC II must be containerized - i.e. removed in a manner which precludes contact with the Arctic ecosystem.