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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **1BR-GLA08015**

November 5, 2008

Douglas Craig, M.Sc. Environmental Officer
Defence Construction Canada
Constitution Square, Suite 1720
350 Albert Street
Ottawa, Ontario
K1A 0K3

Email: Douglas.Craig@dcc-cdc.gc.ca

Email: Eva.Schulz@aecom.com

RE: NWB Licence No. 1BR-GLA0815

Dear Mr. Craig,

Please find attached, the amended and renewal Licence No. **1BR-GLA0815** issued to Defence Construction Canada (DCC) by the Nunavut Water Board (NWB) 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* (NLCA) and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRTA). 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 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 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.

Sincerely,

A handwritten signature in dark ink, appearing to read 'T. Kabloona', with a long horizontal flourish extending to the right.

Thomas Kabloona
Nunavut Water Board, Chair

TK/kt/dh

Enclosure: Licence No. **1BR-GLA0815**

cc: Kitikmeot Distribution List

DECISION

LICENCE No.: 1BR-GLA0815

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Water Licence renewal and amendment dated February 15, 2008 made by:

DEFENCE CONSTRUCTION CANADA (DCC)

to allow for the use of water and disposal of waste during camp operations and post-construction monitoring activities at the CAM-2 Gladman Point DEW Line Site located on the south side of King William Island within the Kitikmeot Region, Nunavut, located at general latitude 68° 40'N and general longitude 97° 49'W.

DECISION

After having been satisfied that the application was for a location within an area in which there is no valid Land Use Plan and having undergone a Screening by the Nunavut Impact Review Board in accordance with Part 4 of the *Nunavut Land Claims Agreement* (NLCA)¹, 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, 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, waived the requirement to hold a public hearing, and determined that:

**Licence Number 1BR-GLA0815 be issued subject to the terms and conditions contained therein.
(Motion #: 2008-06-L12)**

SIGNED this 5th day of November, 2008 at Gjoa Haven, NU.



Thomas Kabloona
Nunavut Water Board, Chair

TK/kt/dh

¹ Screening Decision of the Nunavut Impact Review Board (NIRB) on Application: NIRB 03DN003; DIAND N2003X0002; NWB NWB5GLA; DEW Line Clean-up CAM-2, Gladman Point, dated March 3, 2003

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I. INTRODUCTION

The former CAM-2 Gladman Point, Distant Early Warning (DEW) Line Site is located on the south side of King William Island approximately 75 km West of Gjoa Haven and 300 km east of Cambridge Bay in the Kitikmeot Region, Nunavut, within the general latitude 68° 40'N and general longitude 97° 49'W.

CAM-2 was converted to a short range radar site in the early 1990's and recently underwent remediation and decommissioning under Water Licence NWB5GLA0308, completed in 2005. Remediation and decommissioning activities involved construction camp mobilization and operation, landfill construction and remediation, petroleum impacted soil landfarm facility construction and operation, road construction and repairs including stream crossings, barrel and debris consolidation, blasting, and demolition of infrastructure no longer required for the operation of the short range radar site.

The purpose of the renewal application is to provide for post construction landfill monitoring of the following five landfill areas:

- Non-hazardous Waste Landfill;
- Tier II Soil Disposal Facility;
- Station Landfill;
- West Landfill – North; and
- West Landfill – South.

Landfill monitoring is scheduled to occur over a 25 year period between 2008 and 2033 on a seasonal basis between August and September. A small camp for 5-8 people will be set up at site to facilitate the monitoring activities over a 4-5 day period.

II. PRODECURAL HISTORY

An application was filed with the Nunavut Water Board (NWB) by Defence Construction Canada (DCC) on January 6, 2003 for activities associated with the remediation of the CAM-2 DEW Line Site. 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 and on March 3, 2003 NIRB issued its screening determination concluding that the project could proceed subject to terms and conditions without an environmental review under Part 5 or 6. Following public notice from which no public concerns were expressed, the NWB issued Licence NWB5GLA0308 on April 1, 2003 with an expiry date of April 30, 2008.

On February 15, 2008, an application for a Water Licence renewal was filed with the NWB by DCC, for water use and waste disposal activities associated with post construction monitoring of the former CAM-2 DEW Line site. The Application included the request for an expiry date of August 2033 and has been considered under this application to be that for renewal of the current licence with associated amendments.

After having provided notice of the renewal application to the Kitikmeot distribution list on March 18, 2008, no comments were received by the NWB from interested persons.

III. GENERAL CONSIDERATIONS

A Term of 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. While the Applicant has requested a term of 25 years, the NWB believes that a term of approximately seven (7) years is appropriate due to the unresolved issues associated with the original Licence NWB5GLA0308 as described in sections B, D, E, F, and G of this Decision. This Licence term coincides with the schedule for the first phase of monitoring as described in Section 2.4.1 of the applicant's Monitoring Plan (*"Defence Construction Canada Landfill Monitoring Program Water Use Application CAM-2, Gladman Point DEW Line Site"* dated February 2008) as well as allowing for an evaluation of the first phase of monitoring. This Licence term also allows the Licensee to resolve the outstanding issues, properly carry out the terms and conditions of the renewed Licence and provide sufficient time to permit the Licensee to develop, submit and implement the plans required under the Licence to the satisfaction of the NWB.

B Former Sewage Disposal Facility

Under the previous licence, NWB5GLA0308, Part D Item 2, the Licensee was requested to submit to the Board for approval, prior to construction and operation, design drawings of the Sewage Disposal Facility stamped by a qualified Engineer registered in Nunavut. To date, this Licence condition has not been addressed.

The Licensee's 2003 Annual Report, submitted March 31, 2004, indicated that the sewage lagoon, constructed in 2003 did not retain the effluent discharged to it. Following review of the 2003 Annual Report, Environment Canada requested information regarding how sewage was to be handled for the duration of the project, as the lagoon was not operating properly. This request was forwarded to the Licensee by the NWB on September 29, 2004 requesting the Licensee to submit the information as an addendum to the approved 2003 Annual Report.

The Licensee's 2004 Annual Report, submitted March 10, 2005, stated that due to the coarse grained nature of the material available at the CAM-2 site, the sewage lagoon did not retain the sewage and all effluent discharged into the lagoon infiltrated the ground. As such, no samples of the sewage effluent were collected.

On November 1, 2005, the NWB issued a letter to DCC reminding DCC of the NWB's September 29, 2004 request and further requesting details associated with the design of the Sewage Disposal Facility including the design drawings stamped by a qualified Engineer and measures put in place to improve performance of the Sewage Disposal Facility

The Licensee's 2005 Annual Report submitted March 31, 2006, stated again that due to the coarse grained nature of the material available at the CAM-2 site, the effluent in the sewage lagoon infiltrated the ground and there was usually insufficient volume for sampling. One sample collected showed levels that exceeded BOD and fecal coliform (as per Part D Item 3 of Water Licence NWB5GLA0308).

On March 6, 2007, the NWB issued a letter to DCC requesting a response to the concerns expressed in previous correspondence regarding the performance of the sewage lagoon and

notifying Indian and Northern Affairs Canada (INAC) of the compliance issues by way of copy of the letter.

The Board acknowledges that the Sewage Disposal Facility was closed out and regraded at the end of the 2005 season, however, the Board would like resolution of the above mentioned issues and therefore requires as a condition in Part D Item 1 of the renewal Licence that the Licensee submit as-built drawings of the former Sewage Disposal Facility, the GPS coordinates of the monitoring station at the Facility, as well as a Site Close-Out Report for the Sewage Disposal Facility that describes any efforts conducted to assess if the foundation and berm soils of the lagoon were contaminated and if so, how contaminated soils were managed or remediated.

C Annual Report

The requirements imposed upon the Licensee are for the purpose of ensuring that the NWB has an accurate annual update of water use and depositions of waste during a calendar year. This information is maintained on the public registry and is available to any interested persons upon request. The requirements of this Annual Report can be found in Part B, Item 1.

D Spill Contingency Planning

On January 6, 2003, the Applicant submitted as part of the original Water Licence Application a Spill Contingency Plan. The Board generally requires that all Licensees prepare comprehensive Spill Contingency Plans to establish a state of readiness to ensure prompt and effective response to possible spills or system failure events. As such, Part G Item 2 of Water Licence NWB5GLA0308 required the Licensee to submit a revised Spill Contingency Plan in accordance with the Board's "*Guidelines for Contingency Planning*", January 1987, for Board approval sixty (60) days prior to the commencement of operations. To date, a revision to the Plan has not been received by the NWB.

Although the scale of the Water Licence renewal activities is smaller than those originally licenced by Water Licence NWB5GLA0308, the potential for spills still exist, and for that reason the Board requires as a condition in Part I Item 1 of the renewal Licence, that the Licensee submit a site specific Spill Contingency Plan for post closure monitoring activities.

E Abandonment and Restoration

On January 23, 2006, the Licensee submitted an Abandonment and Restoration Plan in accordance with Part I Item 1 of Water Licence NWB5GLA0308. Following distribution of the Plan, comments were received from Environment Canada and the Government of Nunavut by March 2006.

It was noted in a letter dated March 6, 2007 from the NWB to the Licensee that many facilities had undergone abandonment and restoration in 2005, prior to submission of the Plan, even though Part I Items 1 and 2 of Water Licence NWB5GLA0308 required the Plan to be submitted six (6) months prior to the completion of on-site activities to address contractor demobilization and site remediation operations, and that the Plan was to be implemented as and when approved by the Board.

The NWB made a number of requests in its March 6, 2007 letter to the Licensee associated with the Abandonment and Restoration Plan, which to date have not been addressed. Therefore, the Board requires as a condition in Part J Item 1 of the renewal Licence that the Licensee submit a Site Close-out Report.

F Monitoring Plan

On July 16, 2003 the Licensee submitted a Monitoring and QA/QC Plan entitled “*Quality Assurance (QA) and Quality Control (QC) Plan for the Collection of Water Samples at the CAM-2 (Gladman Point) DEW Line Site*” in accordance with Part J Items 1 and 3 of Water Licence NWB5GLA0308.

On October 1, 2004, the NWB issued a letter to the Licensee conditionally approving the Monitoring and QA/QC Plan and requesting the Licensee to submit the following as additional information, provided as an addendum to the approved plan once it became available, upon completion of the remediation program:

- 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

On March 10, 2005, the Licensee submitted a Monitoring Plan entitled “*Defence Construction Canada Landfill Monitoring Program CAM-2, Gladman Point*”. Following a review of the Monitoring Plan, the NWB issued a letter to the Licensee dated March 6, 2007 requesting the following information:

- i. The GPS coordinates of remaining surface and sub-surface monitoring stations;
- ii. The details of the soil sampling methods and depth of collection;
- iii. Clarification regarding the references to Figures for the Landfills and the Tier II Soil Disposal Facility;
- iv. The details considered to assess the risk potential of the West Landfill-North, West Landfill-South, and the Station Landfill; and
- v. The monitoring completed for the Landfarm including the criteria employed for contaminated soil and the location of the remediated soil.

The document entitled “*Defence Construction Canada Landfill Monitoring Program Water Use Licence Application CAM-2, Gladman Point DEW Line Site*” dated February 2008, submitted as part of this Water Licence renewal application addresses items (i)-(iii) listed above. Responses to items (iv) and (v) listed above remain outstanding. Therefore, the Board requires as a condition in Part K Item 2 of the renewal Licence, that the Licensee submit an addendum to the February 2008 Monitoring Plan that addresses items (iv) and (v) listed above.

The NWB has incorporated the Licensee’s Monitoring Plan requirements into Part K of the renewal Licence and the conditions contained therein.

G Quality Assurance/ Quality Control Plan

On July 16, 2003 the Licensee submitted a Monitoring and QA/QC Plan entitled “*Quality Assurance (QA) and Quality Control (QC) Plan for the Collection of Water Samples at the CAM-2 (Gladman Point) DEW Line Site*” in accordance with Part J Items 1 and 3 of Water Licence NWB5GLA0308.

On October 1, 2004, the NWB issued a letter to the Licensee conditionally approving the Monitoring and QA/QC Plan.

In 2005, the Licensee submitted revised QA/QC Plans entitled “*Quality Assurance (QA) and Quality Control (QC) Plan for the Collection of Effluent Samples at the CAM-2 (Gladman Point) Dew Line Site*” revised September 2005, and “*Quality Assurance (QA) and Quality Control (QC) Plan for the Landfill Monitoring Program at the CAM-2 (Gladman Point) Dew Line Site*” revised September 2005.

On March 6, 2007, the NWB issued a letter to the Licensee, requesting documentation to substantiate Analyst approval of the QA/QC Plan or an update as to when Analyst approval would be obtained in accordance with Part J Item 3 of Water Licence NWB5GLA0308. To date this requirement has not been addressed. Therefore, the Board requires as a condition in Part K Item 8 of the renewal Licence, that the Licensee submit the appropriate documentation to substantiate Analyst approval of the QA/QC Plan.

LICENCE NO. 1BR-GLA0815

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 (DCC)

(Licensee)
of **Constitution Square, Suite 1720, 350 Albert Street, Ottawa, ON K1A 0K3**

(Mailing Address)

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

1BR-GLA0815
Licence Number _____

NUNAVUT 04
Water Management Area _____

**CAM-2 DEW LINE SITE, GLADMAN POINT,
KITIKMEOT, NUNAVUT**
Location _____

WATER USE AND WASTE DISPOSAL
Purpose _____

INDUSTRIAL – TYPE “B”
Classification of Undertaking _____

FIVE (5) CUBIC METRES PER DAY
Quantity of Water Not to Exceed _____

NOVEMBER 5, 2008
Date of Licence _____

OCTOBER 30, 2015
Expiry Date of Licence _____

Dated this 5th day of November, 2008 at Gjoa Haven, NU.



Thomas Kabloona
Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of water and the disposal of waste for an undertaking classified as Industrial as per Schedule II of the *Regulations* at the CAM-2 Gladman Point DEW Line Project, located approximately 75 km West of Gjoa Haven in the Kitikmeot Region, Nunavut, within the general latitude 68° 40'N and general longitude 97° 49'W.

- a. 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
- b. 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.

“**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;

“**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 water 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* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

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

“Engineer” means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;

“Environmental Working Group” means the group established to provide technical support to the Steering Committee comprised of qualified engineering and environmental scientists with expertise in environmental remediation and clean up in northern climates as described in the document entitled *“Defence Construction Canada Landfill Monitoring Program Water Use Application CAM-2, Gladman Point DEW Line Site”* dated February 2008.

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

“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 areas designated to biologically treat Type B soils;

“Licensee” means the holder of this Licence;

“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 the Monitoring Plan submitted as part of the Application entitled *“Defence Construction Canada Landfill Monitoring Program Water Use Licence Application CAM-2, Gladman Point DEW Line Site”* dated February 2008, that identifies the program established to collect data on surface water and groundwater quality as well as ground temperature to assess impacts to the environment of an appurtenant undertaking;

“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;

“Regulations” means the *Northwest Territories Water Regulations* sor/93-303 8th June, 1993, omitting Section 5, Water Use or Waste Deposit Without a Licence;

“Sewage” means all toilet wastes and greywater;

“Sewage Disposal Facility” comprises the area and engineered structures designed to contain and treat sewage as described in the Application for Water Licence filed by the Applicant on January 6, 2003

“Solid Waste” means non-hazardous waste, Type A soil, Tier I soil and Tier II soil;

“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 Water Licence filed by the Applicant on January 6, 2003;

“Spill Contingency Plan” means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

“Steering Committee” means the Steering Committee described in the *“Agreement between Nunavut Tunngavik Incorporated and Her Majesty 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”* dated September 1, 1998, to monitor progress, develop recommendations and suggest alternative solutions for achieving the commitments set forth in the Agreement;

“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 *“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;

“Tier II Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of 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;

“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, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

“Water Supply Facilities” comprises the Water Supply Lake area and associated infrastructure designed to collect and supply water.

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. The 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. A summary report of water use and waste disposal activities;
 - b. A summary of any construction work, modification and major maintenance work (including as-built diagrams) carried out on Solid Waste Disposal Facilities;
 - c. Tabular summaries for all data and information generated under the “Monitoring Program”;
 - d. An analysis of data collected during the “Monitoring Program” and a brief description of any future studies planned by the Licensee;
 - e. The results of any review conducted by the Environmental Working Group and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements;
 - f. A summary of remediation work undertaken during the year and an outline of work anticipated for the following year;
 - g. 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;
 - h. A list of unauthorized discharges and summary of follow-up actions taken;
 - i. Any revisions to the remediation plan;
 - j. Any updates or revisions for manuals and plans as required by changes in operation and/or technology;
 - k. If applicable, a description of any trenches and sumps excavated, including but

- not limited to the following: GPS coordinates, dimensions, depth below active layer and secondary containment features;
- l. Revisions or addendum for the Spill Contingency Plan, including contact information as required under Part I, Item 2;
 - m. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - n. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - o. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - p. 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 install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes as required under Part J, Item 1.
 4. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
 5. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
 6. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
 7. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate areas identifying the locations of the Water Supply Facility, Solid Waste Disposal Facilities and the Monitoring Program Stations. All postings shall be in the Official Languages of Nunavut.
 8. 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:

Water Resources Officer, INAC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

(c) 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

9. 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.
10. 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.
11. This Licence is not assignable except as provided in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all water for domestic camp use from Water Supply Lake. The volume of water for the purposes of this Licence shall not exceed five (5) cubic meters per day.
2. The Licensee shall implement measures to prevent the deposition of dust and/or sediment into water arising from contractor activities or on-site vehicular traffic.
3. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
4. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized by the Board in writing.
5. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall submit to the Board within sixty (60) days of Licence issuance, as-built drawings of the former Sewage Disposal Facility stamped by a qualified Engineer registered in Nunavut, the GPS coordinates of the monitoring station at the Sewage Disposal Facility, as well as a Close-Out Report for the Sewage Disposal Facility that describes any efforts conducted to assess the foundation and berm soils of the Facility for contamination and if so, how contaminated soils were managed or remediated.
2. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty (30) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise approved by the Board in writing.
3. The Licensee shall backhaul all solid waste to an approved Solid Waste Disposal Facility or as otherwise approved by the Board, in writing.
4. The Licensee shall provide to the Board, prior to the backhauling of any waste, documented authorization from the operator of the approved Solid Waste Disposal Facility where camp waste will be deposited.
5. The Licensee shall backhaul and dispose of all Hazardous Wastes, including waste oil generated through the course of the operation, in an approved waste disposal site.
6. 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.

7. The Licensee shall contain all greywater in a sump located at a distance of at least thirty (30) metres above the ordinary 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, unless otherwise approved by the Board in writing.
8. For any camp with a design population under 300 person days per year and less than 1,000 person days for the life of the camp, the Licensee shall contain all toilet wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits shall be located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.
9. For any camp with a design population over 300 and less than 2,000 person days per year, and less than 5,000 person days for the life of the camp, the Licensee shall dispose of all toilet wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved waste disposal site.
10. All pump out water from sampling activities shall be pumped to an area located at a minimum of thirty (30) meters from the ordinary high water mark of any water body and where direct flow into a water body is not possible and no additional impacts are created.

PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall, upon the failure of any constructed facilities, repair such facilities immediately to the appropriate standards as recommended by an Engineer.
2. 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.
3. 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.
4. The Licensee shall not deposit waste in any waterbody, or on the banks thereof, which may impair the quality, quantity, or flow of water.
5. The deposition of debris or sediment into or onto any water body is prohibited.

PART F: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.

2. All activities shall be conducted 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.

PART G: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. Drilling activities are permitted for the installation of additional monitoring wells as required and identified by the Licensee under Part B, Item e.
2. The Licensee shall not conduct any land based drilling within thirty (30) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board in writing.
3. The Licensee shall ensure that all drill waste, including water, chips, muds and salts (CaCl_2) in any quantity or concentration from drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
4. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
5. Where drilling activity has penetrated below the permafrost layer, the NWB requests that the proponent record the depth of permafrost and location of the drill hole to be included within the Annual Report.

PART H: 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. Modifications 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 I: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Licensee shall submit to the Board within sixty (60) days of Licence issuance a site specific Spill Contingency Plan for post closure monitoring activities in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under the *Environmental Protection Act (Nunavut)* and the document entitled *Contingency Planning and Reporting in Nunavut: a Guide to the New Regulations*.
2. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report.
3. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from 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 and transfer facilities associated with this undertaking.
4. The Licensee shall ensure that any equipment maintenance and servicing be 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.
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 Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 or Environment Canada's 24-hour pager at (867) 766-3737 and to the DIAND Water Resources Inspector at (867) 975-4295; and
 - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

PART J: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licensee shall submit to the Board within sixty (60) days of Licence issuance, a Site Close-out Report to complement the Abandonment and Restoration Plan filed with the Board on January 23, 2006, that includes the following:
 - a. A site description including a brief site history, site location coordinates, the location of fuel/chemical storage facilities used during abandonment and restoration; the number of workers, and the approximate area disturbed;
 - b. A description of the quantities of fuel and chemicals brought to site and left on site;
 - c. A description of how combustible and non-combustible wastes were managed, removed, and disposed.
 - d. A description of how hazardous wastes were managed, removed and disposed including the use of Waste Manifests and registration with the Environmental Protection Service, Department of Environment.
 - e. Site plans before and after abandonment and restoration;
 - f. A list of facilities remaining on the site upon completion of abandonment and restoration activities;
 - g. The schedule for the completed abandonment and restoration activities listed in the Abandonment and Restoration Plan;
 - h. Details and results of final inspections and photographs of each abandoned and/or restored Facility; and
 - i. As-built drawings signed by an Engineer and construction records of each Facility constructed on site.
2. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land at the end of each monitoring event.
3. The Licensee shall remove from the site any solid wastes generated from the camp as well as empty barrels and drums at the end of each monitoring event.
4. The Licensee shall remove from the site infrastructures and site material associated with the temporary camp described in the application filed on February 15, 2008, when no longer needed for site activities. All disturbed areas as a result of the undertaking shall be contoured, stabilized, and re-vegetated as required, upon completion of work and restored as practically as possible to a pre-disturbed state.

PART K: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall undertake post-closure monitoring activities of the Solid Waste Disposal Facilities in accordance with the Monitoring Plan entitled “*Defence Construction Canada Landfill Monitoring Program Water Use Licence Application CAM-2, Gladman Point DEW Line Site*” dated February 2008, and revisions to the Monitoring Plan, approved by the Board in writing.
2. The Licensee shall submit to the Board for review, within sixty (60) days of Licence issuance an addendum to the Monitoring Plan entitled “*Defence Construction Canada Landfill Monitoring Program Water Use Licence Application CAM-2, Gladman Point DEW Line Site*” dated February 2008, that includes the following:
 - a. The details considered to assess the risk potential of the West Landfill-North, West Landfill-South, and the Station Landfill; and
 - b. The monitoring completed for the Landfarm Facility including the criteria employed for contaminated soil and the location of remediated soil.
3. The Monitoring Plan shall be updated to include maps and coordinates of all sampling locations upon final determination and monitoring has begun.
4. The Licensee shall provide the GPS coordinates (in degrees, minutes and seconds of latitude and longitude) of all locations of all Monitoring Program stations and other locations where monitoring is undertaken.
5. The Licensee shall measure and record, in cubic metres, the monthly quantities of water utilized for the camp and other purposes.
6. 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 approved by the Board in writing.
7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
8. The Licensee shall review the project’s QA/QC Plan within sixty (60) days following issuance of the Licence, identifying changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an addendum to the Analyst for approval, unless directed otherwise by the Board in writing. Appropriate documentation demonstrating Analyst approval of the Plan shall be submitted to the Board upon receipt.
9. The Licensee shall submit to the Board as part of the Annual Report required under Part B Item 1, the results of the review conducted by the Environmental Working Group as indicated in the Plan and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements.
10. The Licensee shall include in the Annual Report required under Part B, Item 1 all data, monitoring results and information required by this Part.