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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: 1BR-SHE1016

December 10, 2010

Eva Schulz
AECOM
2540 Kensington Road NW
Calgary Alberta Canada
T2N 3S3
E-mail: Eva.Schulz@aecom.com

RE: NWB LICENCE No. 1BR-SHE1016

Dear Ms. Schulz:

Please find attached renewal Licence No. **1BR-SHE1016** issued to Defence Construction of Canada (DCC) by the Nunavut Water Board (NWB) **Motion #: 2010-23-L02** 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 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 comments¹ received by interested persons on issues identified. This information is attached for your consideration.

Sincerely,



Thomas Kabloona
Nunavut Water Board
Chair

TK/sj/pb

Enclosure: Licence No. **1BR-SHE1016**
Comments

Cc: Distribution - Kitikmeot

¹ Environment Canada dated July 26, 2010; Indian and Northern Affairs Canada dated July 23, 2010; and Kitikmeot Inuit Association dated July 19, 2010.



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

DECISION

LICENCE NO.: 1BR-SHE1016

This is the decision of the Nunavut Water Board (NWB) with respect to an application, dated February 26, 2010, for the renewal of a Licence made by:

DEFENCE CONSTRUCTION CANADA

to allow for the implementation of a post-construction monitoring program at the CAM-3, Shepherd Bay Distant Early Warning (DEW) Line Site, located within the Kitikmeot Region, Nunavut at general latitude of 68° 48' N and general longitude 93° 25' 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 Nunavut Impact Review Board screening³ under Article 12 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 (NWNSTRA)* 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 *NWNSTRA*, decided to waive the requirement to hold a public hearing and determined that:

Licence Number NWB5SHE0510 be renewed as Licence Number 1BR-SHE1016 subject to the terms and conditions contained therein. (Motion #: 2010-23-L02)

Signed this 6th day of December, 2010 at Gjoa Haven, NU.

Thomas Kabloona
Nunavut Water Board, Chair

² Email from the Nunavut Planning Commission to the NWB dated July 5, 2010.

³ Nunavut Impact Review Board decision dated August 30, 2007.

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I. BACKGROUND

The CAM-3 Distant Early Warning Line (CAM-3) site is located in the Shepherd Bay area, approximately 50 km south of the Hamlet of Taloyoak, within the Kitikmeot Region of Nunavut at general latitude of 68° 48' N and general longitude 93° 25' W.

Between the years 2001 and 2002, Defence Construction Canada (DCC) carried out a detailed site investigation at the CAM-3 site. Subsequent to that assessment, on August 24, 2010, DCC filed an application with the Nunavut Water Board (NWB) for a licence to carryout site reclamation activities. On February 17, 2005 the NWB issued a five (5) year licence to DCC to carry out the reclamation program. The licence allowed for, among other activities, the demolition of existing facilities and the construction of engineered landfills. The licence expired on February 28, 2010.

The reclamation program was completed in 2007. DCC now plans to conduct a monitoring program for the seven (7) reclaimed landfills. The monitoring program, which will be supported by an on-site camp capable of accommodating eight persons, is scheduled to last for approximately twenty-five (25) years. The primary goal of the program is to assess the performance of the following reclaimed landfills:

- Beach Landfill;
- Non-Hazardous Waste Landfill;
- Station Landfill;
- Tier II Soil Disposal Facility;
- Northeast Landfill;
- USAF Landfill;
- NWS Landfill.

II. PROCEDURAL HISTORY

On April 21, 2010, DCC filed a licence renewal application with the NWB to allow it to setup a temporary, seasonal camp facility and conduct post-construction, monitoring of the seven landfills at the former CAM-3 DEW line site. The monitoring program is scheduled to be carried out in three phases designed to collect geotechnical and environmental data pertaining to soil, groundwater, and ground temperatures within the landfills and affiliated areas. The data obtained will be used to assess the performance of the landfills.

A Preliminary Technical Review of the application and accompanying documents noted that the 2009 annual report and monitoring results had not been submitted. The applicant was informed that the deficiencies identified had to be addressed before the application could proceed through the NWB's regulatory process.

On June 25, 2010 the NWB received the outstanding information and determined that the application was complete. Following that determination, interested persons and parties were invited to comment on the application over a thirty-day period.

Comments were received from Environment Canada (EC), Indian and Northern Affairs Canada (INAC), and the Kitikmeot Inuit Association (KIA). None of the parties objected to the application for renewal. However, the parties provided a number of recommendations about particular aspects of the project. Following the application review and comments received, the Board has renewed licence NWB5SHE0510 as Licence no. 1BR-SHE1016. The scope of the renewal is limited to the landfill monitoring program.

III. GENERAL CONSIDERATIONS

A. Term of the Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)* S. 45, the NWB may issue a licence for a term not exceeding twenty-five (25) years. In determining an appropriate licence term, The NWB has taken into consideration the Post-Construction Monitoring Program timeframe submitted by the applicant and also notes the applicant's request for a twenty (20) year licence term. The Licensee is expected to complete Phase I monitoring in approximately 5 years. Phase II monitoring is scheduled to begin after verification of equilibrium conditions established in Phase I.

The NWB understands that the proposed twenty (20) year term could allow the Licensee to complete Phase I monitoring and all except one Phase II monitoring event. For Phase I monitoring, however, the NWB is of the view that a six (6) year term is appropriate to allow for the collection, analysis and synthesis of the data required to confirm the degree of chemical and thermal stability within the reclaimed landfills. In addition, the six (6) year term will also allow the Licensee to complete the evaluation of Phase I monitoring data. Furthermore, the term of the licence is consistent with other recently approved landfill monitoring programs licensed by the Board.

B. Annual Report

The annual reporting requirements imposed on the Licensee are for the purpose of ensuring that the NWB has an accurate annual update with respect to the use of water and the deposit of waste during a calendar year. This information is maintained on the public registry and is available to interested persons. The requirements of this Annual Report can be found in Part B, Item 1. A standard form for annual reporting can be downloaded from the NWB ftp site at <http://nunavutwaterboard.org/ftp/> in the administration folder.

In addition, the NWB reminds the Licensee of the previous decision issued by the NWB with respect to this project in which the Licensee was notified of the reporting requirement to provide an executive summary of reports in Inuktitut. This is an important requirement that has been previously overlooked by the Licensee.

C. Water Use

The Licensee had requested less than one (1) cubic metre of water per day for domestic use. Since water will also be required for sampling purposes, the Board has decided to permit five (5) cubic metres of water per day. As indicated in the application and previous licence, water for domestic use will be obtained from unnamed lakes proximal to camp (Water Supply Lakes).

D. Deposit of Waste

The NWB understands that the CAM-3 site has been reclaimed and that during on-site monitoring, the Licensee is proposing that camp sewage and greywater be disposed of in pits and then buried. Latrine pits and sumps must be at least thirty one (31) metres from the nearest ordinary high water mark. All other wastes generated through the monitoring activities are to be backhauled for proper disposal at a licensed facility. The NWB notes that the Licensee proposed to backhaul all other wastes from site.

G. Modifications

The remediation activities at the CAM-3 site have been completed. In order to ensure that the NWB has an accurate record of the reclaimed facilities, final as-built drawings are an important part of the public record. Part G, Item 4 requires the submission of Final As-built drawings for the reclaimed facilities. As-built drawings shall be stamped and signed by a professional Engineer and submitted to the NWB for the public registry. Final As-built drawings are required for the Beach Landfill, Non-Hazardous Waste Landfill, Station Landfill, Tier II Soil Disposal Facility, Northeast Landfill, USAF Landfill and NWS Landfill.

H. Spill Contingency Planning

The NWB finds the Spill Plan submitted with the application to be generally acceptable. The NWB notes that INAC and EC provided helpful comments on the Plan. In particular, the NWB requests that, upon the Plan's next revision, the Licensee include the following information:

- a. Include a copy of the NT-NU Spill Report form;
- b. Provide a list of the contents of each spill kit; and
- c. Update the contact information for INAC's Manager of Field Operation: phone 867-975-429 and fax 867-975-6445.

I. Abandonment and Restoration

Given that the scope of on-site operations has changed significantly since the completion of reclamation activities, the Licensee is requested to revise the Abandonment and Restoration plan to reflect the seasonal and permanent closure measures required for the on-site camp used to support the monitoring program. The plan shall be submitted to the NWB for review.

J. Monitoring

The remediation activities at the CAM-3 site were completed in 2007. Monitoring of remaining facilities will be on-going for approximately twenty (20) to twenty five (25) years.

The monitoring to be carried out under this licence shall be conducted in accordance with the approved Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010. All monitoring results are to be provided to the NWB with an analysis/interpretation of results as part of the Annual Reports.

The NWB notes that the monitoring program does not include information regarding monitoring of the on-site landfarm identified in the correspondence to the Board dated January 5, 2007, which stated that there were plans to decommission the Landfarm. However, the NWB could not locate supporting information as it relates to the remediated soil or the structure itself. The Licensee should provide photographic record, drawings, and disposal details for Landfarm soil along with analytic results confirming the level of treatment.

In addition, the NWB notes that there appears to be no monitoring of the decommissioned landfarm described in the program. The NWB requests, in accordance with Part J, Item 6, that the Licensee provides a plan to monitor the reclaimed landfarm. The plan shall be submitted to the NWB for approval at least three (3) months prior to on site monitoring in 2011.

Finally, the NWB has included a requirement for the Licensee to submit a comprehensive report prior to the renewal or as part of the renewal application documents for this licence. The Report shall include the results of any review conducted and/or changes recommended by the Environmental Working Group (EWG) to the monitoring plan, data collected during Phase I Monitoring, and the results of assessments or inspections, conducted by a geotechnical Engineer, aimed at determining the integrity of the Waste Disposal Facilities. In addition, the Report shall address the short-term and long-term performance of the facilities, the nature of the permafrost encasing the facilities, and included recommendations where necessary. This requirement is detailed under Part J, Item 5 and will help the NWB and interested parties assess the effectiveness of both the reclamation and monitoring measures undertaken.



NUNAVUT WATER BOARD WATER LICENCE

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)

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 or dispose of waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number/Type: 1BR-SHE1016 TYPE "B"

Water Management Area: NUNAVUT 05

Location: CAM-3SHEPHERD BAY DEW-LINE SITE
KITKMEOT REGION

Classification: INDUSTRIAL UNDERTAKING

Purpose: DIRECT WATER USE AND CAMP-WASTE DISPOSAL
DURING LONG-TERM MONITORING

Quantity of Water use not
to Exceed: FIVE (5) CUBIC METRES PER DAY

Date of Licence Issuance: DECEMBER 6, 2010

Expiry of Licence: DECEMBER 30, 2016

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

This Licence allows for the implementation of a Post Construction Monitoring Plan for an industrial undertaking at the CAM-3, Shepherd Bay Distant Early Warning Line site located approximately 50 km south of Taloyoak within the Kitikmeot Region, Nunavut at general latitude of 68° 48' N and general longitude 93° 25' 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

In this Licence: **1BR-SHE1016**

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

“Beach Landfill” comprises of the landfill, monitoring stations and associated structures identified in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

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

“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 “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

“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

“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” means an area designed to biologically treat Type B soils, as described in the Application for Water License filed by the Applicant on August 24, 2004 and illustrated in Drawing H-S123/2-9101-116;

“Licensee” means the individual or organization to which Licence 1BR-SHE1016 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;

“Non-Hazardous Waste Landfill” comprises the landfill, adjacent monitoring wells and associated structures designed to contain non-hazardous solid waste as described in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010

“Northeast Landfill” comprises of the landfill, monitoring stations and associated structures as described in the Plan entitled “Shepherd Bay Landfill Monitoring” dated February 2010.

“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;

“NWS Landfill” comprises the landfill, monitoring stations and associated structures located immediately adjacent to the northwest edge of the USAF Landfill as described in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

“Post Construction Monitoring Plan” means the plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010 and approved with the Licence Renewal and subject to amendment as per Part J, Item 2.

“Sewage” means all Toilet Wastes and Greywater;

“Station Landfill” consists of the landfill, monitoring station and associated structures designed for the containment of debris as described in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

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

“Tier II Soil Disposal Facility” comprises of the soil disposal facility, monitoring stations and associated structures designed to treat Tier II soil excavated during the clean-up of the CAM-3 site as described in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

“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);

“USAF Landfill” consists of the of the landfill, associated monitoring stations and structures that contain mostly buried debris covering an area of 6570 m² as described in the Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.

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

“Waste Disposal Facilities” means the facilities designed to retain wastes including the

Beach Landfill, Non Hazardous Waste Landfill, Northeast Landfill, NWS Landfill, Station Landfill, Tier II Soil Disposal Facility, USAF Landfill, and Landfarm;

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. The monthly and annual quantities (in cubic metres) of fresh water obtained from all sources;
 - b. A summary of all waste backhauled for disposal at approved facilities under Part D, Items 4;
 - c. Tabular summaries for all data and information generated under the Post Construction Monitoring Plan;
 - d. A review and analysis of data collected during the Post Construction Monitoring Plan and a brief description of any future studies planned by the Licensee;
 - e. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - f. The results of any review conducted and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements;
 - 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. If applicable, a description of any trenches and sumps excavated, including the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - j. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;

- k. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - l. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence;
 - m. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
 - n. For the first Annual Report following issuance of the Licence, include disposal information for soil treated in the Landfarm and details on the abandonment and restoration of the Landfarm.
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
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 authorized to use water for domestic purposes and for the sampling purposes identified in the CAM-3 “Shepherd Bay Landfill Monitoring” Plan. Total water used for both domestic and sampling purposes shall not exceed five (5) cubic metres per day. Water for domestic purposes shall be obtained from Water Supply Lake proximal to camp.
2. The Licensee shall not remove any material from below the ordinary high water mark of any water body.
3. 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.
4. 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 shall locate areas designated for waste disposal at a minimum distance of thirty one (31) 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.
2. The Licensee shall contain all Greywater in a sump located at a distance of at least thirty one (31) 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.
3. The Licensee shall contain all Toilet Wastes in latrine pits. Latrine pits shall be located at a distance of at least thirty one (31) 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.
4. The Licensee shall not practice on-site land filling of domestic waste, unless otherwise approved by the Board in writing.
5. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire,

Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.

6. The Licensee shall backhaul all solid Waste generated through the course of the operation at a licensed waste disposal site.
7. 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 to those communities.
8. 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. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes 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.
3. With respect to access road, pad construction, demolition or other earthworks, the deposition of debris or sediment into any water body is prohibited. These materials shall be disposed of above the ordinary high water mark in such a fashion that they do not enter the water.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Non-Hazardous Waste Landfill 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.
4. The Licensee shall submit to the Board for review, as part of the 2010 Annual Report, final As-Built drawings stamped and signed by an Engineer for the Waste Disposal Facilities.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. 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.

2. 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.
3. 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 INAC Manager of Field Operations at (867) 975-4295; and
 - c. Submit to the INAC 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 submit to the Board for review, as part of the 2010 annual report, a revised Abandonment and Restoration Plan for on-site activities associated with the Monitoring Program including the camp.
2. Any areas disturbed as a result of the undertaking are to be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The NWB has approved the Post Construction Landfill Monitoring Plan entitled “Shepherd Bay Landfill Monitoring” Plan dated February 2010.
2. 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.
3. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
4. The Licensee shall include in the Annual Report, required under Part B, Item 1, all monitoring results and information required by this Part.

5. The Licensee shall submit a comprehensive Monitoring Report for Phase I monitoring prior to renewing or as part of the renewal application documents for this licence. The Report shall include the results of any review conducted and/or changes recommended by the Environmental Working Group (EWG) to the Monitoring Plan, a summary, recommendations, and data collected and should incorporate relevant assessments and/or inspections, performed by a Geotechnical Engineer, with respect to the integrity of the Waste Disposal Facilities. The Report shall also address whether the facilities have performed as expected, the expected long-term performance of the facilities and the extent to which the facilities are encased in permafrost.
6. The Licensee shall submit to the Board for approval, at least three (3) months prior to on site monitoring activities in 2011, a Landfarm Monitoring Plan to verify the stability of the closed facility.

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

Substance	DCC Tier I^{bc} (mg/L)	DCC Tier II^d (mg/L)
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.