



P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369

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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI

## DECISION

### LICENCE NUMBER: NWB5SHE0510 - Type "B"

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence dated August 24, 2004, made by:

#### Defence Construction Canada (DCC)

to allow for the use of water and disposal of waste during remediation activities at the CAM-3 DEW Line Site, Shepherd Bay, Kitikmeot Region, Nunavut.

With respect to this application, the NWB gave notice to the public that Defence Construction Canada had filed an application for a water licence.

## DECISION

After having been satisfied that the application was exempt from the requirement for screening by the Nunavut Impact Review Board in accordance with S. 12.3.2 of the *Nunavut Land Claim Agreement* (NLCA), the NWB decided that the application could go through the regulatory process. After reviewing the submission of the Applicant and written comments expressed by interested 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 *Nunavut Land Claims Agreement* and of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA), decided to waive the requirement to hold a public hearing and furthermore to delegate its authority to approve the application to the Chief Administrative Officer pursuant to S. 49(a) of the NWNSRTA and determined that:

**Licence Number NWB5SHE0510 - Type "B" be issued subject to the terms and conditions contained therein. (Motion #:2004-49)**

SIGNED this 17th day of February, 2005 at Gjoa Haven, NU.

Philippe di Pizzo  
Chief Administrative Officer

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## **I. BACKGROUND**

The CAM-3DEW Line site is located at Shepherd Bay, within the Kitikmeot region of Nunavut, at 68°46"N and 93°30"W. The CAM-3 site has been determined to be surplus, and accordingly operations on the site have ceased. As has been the practice at other DEW line facilities, a detailed site investigation was undertaken prior to the commencement of remediation activities. This site assessment took place during 2001 and 2002. The CAM-3 site remediation is scheduled to occur between 2005 and 2008, and will include the following activities:

- Demolition and removal of existing facilities that are not required for the operation of the North Warning System;
- Management of contaminated soils in accordance with Federal regulations and the *"Agreement Between Nunavut Tunngavik Incorporated and Her Majesty the Queen in Right of Canada, as Represented by the Minister of National Defense 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;
- Remediation of existing site landfills, and construction of engineered landfill facilities for the containment of non-hazardous waste and contaminated soils;
- Collection and disposal of scattered surface debris on the CAM-3 site; and
- Restoration of disturbed areas to a stable condition shaped to match existing terrain.

The existing site airstrip will be used to access the site, and existing roads will be used for site travel. A temporary camp will be set up at the site to facilitate the site remediation activities. Upon completion of site remediation, all camp facilities, including equipment and excess fuel, will be removed from the site. Long term monitoring of site landfills will be undertaken upon completion of clean-up activities and continue for 25 years, after which time monitoring requirements will be re-evaluated.

## **II. PROCEDURAL HISTORY**

On August 24, 2004, Defence Construction Canada (DCC) filed an application with the Nunavut Water Board for a water license for water use and waste disposal activities associated with remediation activities at the CAM-3 DEW Line Site located at Shepherd Bay, Nunavut. After having been satisfied that the application was exempt from the requirement for screening by the Nunavut Impact Review Board in accordance with Schedule 12.1, Paragraph 5 of the *Nunavut Land Claim Agreement* (NLCA), the NWB decided that the application could proceed through the regulatory process.

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 55.1 and Article 13 of the *Nunavut Land Claims Agreement*, public notice of the application was posted. The application was then referred for review and comments to Federal, Territorial and local organizations. No public concerns were expressed, and after reviewing the submission of the Applicant and written comments expressed 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 *Nunavut Land Claims Agreement* and of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA), decided to waive the requirement to hold a public hearing and furthermore to delegate its authority to approve the application to the Chief Administrative Officer pursuant to s.13.7.5 of the NLCA and S.49(a) of the NWNSTRA.

### **III. ISSUES**

#### **Term of the License**

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 45, the NWB may issue a license for a term not exceeding twenty-five years. In determining an appropriate term of a water license, the Board considers a number of factors, including the results of any previous Department of Indian and Northern Affairs Canada (INAC) site inspections and the compliance record of the Applicant. To date, the level of regulatory compliance of the Licensee on other related projects has been commendable, and accordingly no issues currently exist that would indicate any concerns to the Board regarding the term of the license requested by the Applicant.

The NWB has imposed the requirement to produce an Annual Report. This Report is for the purpose of ensuring that the NWB has an accurate annual update of licensed activities during a calendar year. This information is maintained on the public registry and is available to any interested persons upon request. The Licensee's attention is drawn to the requirements for information to be provided to the Board in the Annual Report, which is described in Part B, Item 1 of this license.

In review of the application the NWB has determined that a term of five (5) years is appropriate, and will allow enough time for the Licensee to develop, submit, and implement the plans required under its license to the satisfaction of the NWB.

#### **Water Use**

The CAM-3 DEW Line site currently receives water from Water Supply Lake. Water requirements for camp operations during the period of the license were reported to be approximately 10 m<sup>3</sup> per day. Water requirements for construction purposes have been identified as approximately 40 m<sup>3</sup> per day. Total water usage requested by the Applicant is 50m<sup>3</sup> per day. No concerns were expressed by interested persons regarding the levels of water use proposed. Accordingly, and based upon the projected requirements of the Licensee, the Board has set the terms and conditions in the water license, which govern water usage. The maximum permitted usage of water by the Licensee, over the term of the water license and for all purposes, has been set at 50 m<sup>3</sup> per day.

#### **Deposit of Waste**

## **Sewage**

The Licensee has indicated that camp sewage and greywater will be discharged to a two-cell lagoon located a minimum of 100 m from any body of water or any drainage course. This lagoon will be remediated prior to departure from the site.

The Department of Fisheries and Oceans (DFO) and Environment Canada (EC) provided specific comments relevant to sewage disposal operations at the CAM-3 DEW line site. DFO and EC both identified the requirements described in the *Fisheries Act* to prevent the deposition of deleterious substances into water. EC requested that the Applicant clearly identify the Sewage Disposal Facility, as well as its Final Discharge Point, with appropriate signage. EC additionally recommended that the applicant maintain a minimum of 1 metre freeboard in the Sewage Disposal Facility lagoon at all times. As well, EC recommended that the proponent develop an Operations and Maintenance Plan (including an appropriate Spill Contingency Plan) to help prevent the deposition of deleterious substances into the environment. Finally, EC requested that the Licensee develop information regarding the chemical and physical characteristics of the sewage sludge contained within the Sewage Disposal Facility prior to the abandonment and restoration of that Facility. The Board concurs with these recommendations, and has set the terms and conditions in the water license which govern sewage disposal accordingly.

## **Solid Waste**

The Licensee has indicated that camp solid waste will be incinerated and that any non-combustible residual waste will be buried in an on-site landfill. Additionally, pre-existing landfills on the CAM-3 DEW Line site will be remediated in accordance with protocols described in the *“Agreement Between Nunavut Tunngavik Incorporated and Her Majesty the Queen in the Right of Canada, as Represented by the Minister of National Defense 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. Non-hazardous waste, as well as contaminated soil, will be placed in appropriately designed engineered landfills. Soils designated as hazardous under the *Canadian Environmental Protection Act* (CEPA; 1999), as well as materials coated with PCP-amended paint, will be disposed of in approved off-site facilities.

Specific comments relevant to solid waste disposal operations on site were provided by EC and DFO. EC and DFO recommended that control measures be put in place to manage sediments during site construction works, in order to prevent the depositions of deleterious substances into water in violation of the *Fisheries Act*. EC and DFO further recommended that monitoring of site drainage ditches be undertaken, in order to confirm that said deposition of sediments into water does not occur. Finally, DFO and EC provided specific guidance relative to construction activities (granular storage, equipment fueling and maintenance and facility construction), to prevent the deposition of deleterious substances into water. The Board concurs with these recommendations, and has set the terms and conditions in the water license, which govern solid waste disposal, accordingly.

## **LICENCE NWB5SHE0510 TYPE “B”**

**LICENCE NWB5SHE0510 TYPE "B"**

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

**DEFENSE CONSTRUCTION CANADA (DCC)**

(Licensee)

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

of

(Mailing Address)

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

**NWB5SHE0510 Type "B"**

Licence Number

**NUNAVUT 06**

Water Management Area

**CAM-3 DEW LINE SITE, SHEPHERD BAY,  
KITIKMEOT REGION, NUNAVUT (68°46'N; 93°30'W)**

Location

**WATER USE AND WASTE DISPOSAL**

Purpose

**CAMP MOBILIZATION & OPERATION,  
SITE REMEDIATION AND ASSOCIATED USES**

Description

**50 CUBIC METRES DAILY**

Quantity of Water Not to be Exceeded

**FEBRUARY 17, 2005**

Date of Licence

**FEBRUARY 28, 2010**

Expiry Date of Licence

Dated this 17th of February 2005 at Gjoa Haven, NU.



Philippe di Pizzo  
Chief Administrative Officer

## **PART A: SCOPE, DEFINITIONS & ENFORCEMENT**

### **1. SCOPE**

- i. This Licence entitles Defense Construction Canada (DCC) to use water and dispose of waste during operations required for the clean-up of the CAM-3 Distant Early Warning (DEW) Line Site, Shepherd Bay, Nunavut (68°46'N; 93°30'W). Activities include: 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 North Warning System Short Range Radar site.
- ii. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and.
- iii. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives.

### **2. DEFINITIONS**

In this Licence: **NWB5SHE0510 TYPE "B"**

**"Act"** means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*

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

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

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

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

**“Demolition Rinse Water”** means water and associated waste generated by the operation of decontamination and decommissioning activities;

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

**“Final Discharge Point”** means an identifiable discharge point of a Waste Disposal Facility beyond which the Licensee no longer exercises care and control over the quality of the Effluent;

**“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 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 License NWB5SHE0510 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 program established to collect data on surface water and groundwater quality 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;

**“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 Defense 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’;

**“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 August 24, 2004 and illustrated in Drawing H-S123/2-9101-104.

**“Sewage”** means all toilet wastes and greywater;

**“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 August 24, 2004 and illustrated in Drawings H-S123/2-9101-101/111/112/113/114/115/116;

**“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 Defense 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 (see Table I);

**“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 Defense 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 (see Table I);

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

**“Type B Soil”** means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline;

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

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

**“Water Supply Facilities”** comprises the Water Supply Lake area and associated infrastructure designed to collect and supply water, as described in the Application for Water Licence filed by the Applicant on as described in the Application for Water License filed by

the Applicant on August 24, 2004 and illustrated in Drawing H-S123/2-9101-101.

### **3. ENFORCEMENT**

- i. Failure to comply with this Licence will be a violation of the *Act*, exposing the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- ii. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- iii. 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 with the Board no later than March 31 of the year following the calendar year reported, which shall contain the following information:
  - i. The monthly and annual quantities (in cubic metres) of fresh water obtained from all sources;
  - ii. The monthly and annual quantities (in cubic metres) of sewage generated;
  - iii. The monthly and annual quantities (in cubic metres) of material deposited in Solid Waste Disposal Facilities;
  - iv. A summary of any construction work, modification and major maintenance work (including as-built engineered drawings) carried out on the Water Supply and Solid Waste Disposal Facilities, including all associated structures;
  - v. Tabular summaries for all data and information generated under the "Monitoring Program";
  - vi. An analysis of data collected during the "Monitoring Program" and a brief description of any future studies planned by the Licensee;
  - vii. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
  - viii. 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;
  - ix. A list of unauthorized discharges and summary of follow-up actions taken;
  - x. Any revisions to the approved "Spill Contingency Plan";
  - xi. If applicable, a description of any trenches and sumps excavated, including but not limited to the following: GPS coordinates, dimensions, depth below active

- xii. layer, and secondary containment features;
  - xiii. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
  - xiv. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
  - xv. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
  - xvi. Any other details on water use or waste disposal requested by the Board by November 1<sup>st</sup> of the year being reported.
2. Meters, devices, or such methods as approved by the Board for measuring the volumes of water used and waste discharged shall be installed, utilized and maintained by the Licensee to the satisfaction of an Inspector.
  3. Modifications to the “Monitoring Program” may be made only upon written approval of the Chief Administrative Officer.
  4. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate area to inform the public of the location of the Water Supply Facility, Solid Waste Disposal Facilities, Landfarm Facility, and the stations of the “Monitoring Program”. All postings shall be in the Official Languages of Nunavut and located and maintained to the satisfaction of an Inspector.
  5. The Licensee shall ensure a copy of this Licence is maintained at the municipal office and at the site of operation at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

**(i) Chief Administrative Officer:**

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

**(ii) Inspector Contact:**

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

**(iii) Analyst Contact:**

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

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

**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all freshwater for domestic and contractor-use purposes from the site Water Supply Lakes using the Water Supply Facilities or as otherwise approved by the Board.
2. The Licensee shall implement measures to prevent the deposition of dust and/or sediment arising from contractor activities or on-site vehicular travel into the Water Supply Lakes.
3. The daily quantity of water obtained for all purposes shall not exceed 50 cubic metres.
4. The freshwater intake shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.
5. The Licensee shall ensure that the rate of water withdrawal is such that fish do not become impinged on the screen

**PART D: CONDITIONS APPLYING TO SEWAGE DISPOSAL**

1. The Licensee shall direct all sewage to the Sewage Disposal Facility, or as otherwise approved by the Board.

2. All effluent discharged from the Sewage Disposal Facility shall not exceed the following effluent quality standards at the point of discharge to the receiving water as defined in Part J, Item 1(i):

PARAMETER	MAXIMUM AVERAGE CONCENTRATION
Oil and Grease	no visible sheen
Total Suspended Solids	180 mg/l
BOD	120 mg/l
Faecal Coliforms	10000 CFU/100ml
The waste shall have a pH between 6.0 and 9.0.	

3. The Licensee shall collect and temporarily store, in preparation for future disposal, all Demolition Rinse Water from decontamination procedure.
4. All pump out water from excavation and borrow pits shall be pumped to an area approved by an Inspector.

#### **PART E: CONDITIONS APPLYING TO SOLID WASTE DISPOSAL**

1. The Licensee shall dispose of Tier I soil, Tier II soil, Type A soil, non-hazardous waste and waste generated during site construction and remediation activities in the Solid Waste Disposal Facilities constructed according to the Plans contained in the application submitted to the Board by the Licensee on August 24, 2004.
2. The Licensee shall treat Type B soil in the Landfarm Facility, constructed according to the Plans contained in the application submitted to the Board by the Licensee on August 24, 2004.
3. The Licensee shall dispose of material coated with Polychlorinated Biphenyl (PCB) - amended paints, hazardous materials and soils containing contaminants in excess of Canadian Environmental Protection Agency (CEPA) Guidelines off site at an approved treatment facility.

#### **PART F: CONDITIONS APPLYING TO THE UNDERTAKING**

1. The Licensee shall ensure that the location and construction parameters of the Tier II contaminated soil and non-hazardous waste landfills, petroleum-impacted soil land-farms, roads including stream crossings, active layer monitoring wells, thermal monitoring sites and

any other associated structures conform to the plans submitted to the Board by the Applicant on August 24, 2004.

2. The Licensee, if any constructed facilities were to fail, shall repair such facilities immediately.
3. The Licensee shall implement proper handling, storage and transportation procedures for hazardous materials during clean-up activities.
4. The Licensee shall minimize disturbance to terrain, permafrost and drainage during extraction of granular material, development and closure of landfills, movement of contractor's equipment and personnel around the site and removal of site debris.
5. Stream crossings shall be appropriately designed and constructed to minimize erosion and/or deposition of waste into water.
6. The Licensee shall ensure that the existing creek channels are maintained at their normal width and depth to the extent possible, both during and after construction.
7. Granular materials and rock rip-rap used for any temporary stream crossings, approaches or as may be required for bank stabilization must be obtained from a source approved by an Inspector, and be clean and free of contaminants. Such material must not be removed or gathered from below the ordinary high water mark of the creek, stream or from any nearby water body.
8. All sites affected by construction or removal activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into watercourses located on or adjacent to the site, to the satisfaction of an Inspector.
9. The Licensee shall restore and stabilize all areas affected by the undertaking upon completion of the work, to the satisfaction of an Inspector.
10. The Licensee shall not deposit any waste in any body of water, or on the banks thereof, which may impair the quality, quantity, or flow of water.
11. Areas designated for waste disposal shall not be located within thirty (30) metres of the normal high water mark of any body of water, unless otherwise authorized.
12. The Licensee shall dispose of all scrap metal, discarded machinery and parts, and other bulky material in a manner that conforms to the Plans submitted to the Board.
13. The Licensee shall ensure that:
  - i. Any in-stream construction is carried out during low water periods;

- ii. In-stream activity is limited and machinery is prohibited from traveling up the streambed;
- iii. Fording of streams is minimized;
- iv. Equipment used in in-stream construction is clean and free of oil and grease;
- v. Mechanized clearing is not permitted within thirty (30) metres of the normal high water mark of on-site streams in order to maintain a vegetative mat for bank stabilization; and
- vi. Debris from clearing activities should not be dragged or skidded across watercourses and all slash and debris is to be disposed of above the high water mark so that it does not enter the water.

#### **PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Licensee shall ensure that any fuels, chemicals, or wastes associated with this undertaking do not enter any waters. All fuel is to be stored at a location that is a minimum of thirty (30) metres from the ordinary high water mark of any water source.
2. The Licensee shall revise the approved "Spill Contingency Plan (2004)", to reflect the following:
  - i. The addition of a INAC Inspector and the Environment Canada Inspector in Iqaluit to the spill response contact list in Nunavut;
  - ii. The addition of Contractor personnel to the spill response contact list;
  - iii. The utilization of drip pans during equipment re-fueling operations; and
  - iv. The location (including GPS co-ordinates) of all fuel storage areas associated with the undertaking.
3. The revision data requested in Part G, Item 2 shall be submitted to the Board 30 days prior to the commencement of on-site works. The information may be submitted as an addendum to the approved "Spill Contingency Plan (2004)".
4. The Licensee shall revise the "Spill Contingency Plan (2004)" annually to reflect changes in operation, technology and personnel. Any proposed modification shall be re-submitted to the Board for approval.
5. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - i. Employ the "Spill Contingency Plan";
  - ii. Report the spill immediately to the 24-Hour Spill Reporting Line (867) 920-8130 and to an Inspector at (867) 975-4298; and

- iii. Submit to an Inspector a detailed report on each occurrence no later than thirty (30) days after initially reporting the event.

#### **PART H: CONDITIONS APPLYING TO MODIFICATIONS**

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

#### **PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION**

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

4. The Licensee shall complete all reclamation work within the time schedule specified in the Plan submitted to the Board, unless otherwise approved by the Board.

**PART J: CONDITIONS APPLYING TO MONITORING PROGRAMS**

1. The Licensee shall within six (6) months of issuance of the License submit to the Board for approval a “Monitoring Program” which shall include but not be limited to the following:
  - i. GPS coordinates of all locations of sewage and greywater disposal;
  - ii. GPS coordinates of any discharges of treated water from the landfarm facility (if applicable)
  - iii. Specific components of the monitoring program;
  - iv. Sampling frequency; and
  - v. Physical and chemical parameters for sewage and greywater analyses;
2. The Licensee shall revise the “Monitoring Program” referred to in Part J, Item 1 if not acceptable to the Board. The Revised Plan shall be submitted to the Board for approval within thirty (30) days after notification.
3. The “Monitoring Program” referred to in Part J, Item 1 shall be implemented as approved by the Board.
4. The Licensee shall provide to the Board, as an addendum to the “Monitoring Program” the following information, when said information becomes available upon completion of the remediation program, to confirm the implementation of the monitoring provisions of the NTI Agreement:
  - 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
5. The Licensee shall submit to the Board, at least thirty (30) days prior to any sampling, a Quality Assurance/Quality Control (QA/QC) Plan approved by an Analyst which addresses both field and laboratory requirements.
6. The QA/QC Plan referred to in Part J, Item 5 shall be implemented as approved by the Board.
7. All sampling, sample preservation and analyses shall be conducted in accordance with

methods prescribed in the current edition of “Standard Methods for the Examination of Water and Wastewater”, or by such other methods as approved by the Board.

8. All analyses shall be performed in a Canadian Association of Environmental Analytical Laboratories (CAEAL) Certified Laboratory, or as approved by the Board.

**Table I**  
**Tier I and Tier II**  
**DEW Line Clean-up Criteria**

Substance	Units	DCC Tier I	DCC Tier II*
Arsenic	ppm	-	30
Cadmium	ppm	-	5.0
Chromium	ppm	-	250
Cobalt	ppm	-	50
Copper	ppm		100
Lead	ppm	200**	500
Mercury	ppm	-	2.0
Nickel	ppm	-	100
Zinc	ppm	-	500
PCB's	ppm	1.0***	5.0

\* concentrations exceeding these limits are classified as Tier II soils except when the concentrations exceed federal regulations (CEPA soils)

\*\* concentrations between 200 and 500 ppm are classified as Tier I soils

\*\*\* concentrations between 1.0 and 5.0 ppm are classified as Tier I soils