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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **1BR-HAL0815**

November 3, 2008

Mr. Douglas Craig, M.Sc. Environmental Officer Defence Construction Canada Constitution Square, Suite 1720 350 Albert Street.

Ottawa, ON K1A 0K3

Email: Eva.Schulz@aecom.com
Email: Douglas.Craig@dcc-cdc.gc.ca

RE: NWB LICENCE No. 1BR- HAL0815

Dear Mr. Craig:

Please find attached, renewed and amendment Licence No. **1BR- HAL0815** issued to Defence Construction Canada by the Nunavut Water Board **Motion #: 2008-04-L17** 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 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,

Thomas Kabloona

Nunavut Water Board, Chair

TK/db

Enclosure: Licence No. 1BR- HAL0815

Cc: Qikiqtani Distribution List



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DECISION

LICENCE No.: 1BR-HAL0815

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence renewal and amendment dated February 9, 2008 made by:

DEFENCE CONSTRUCTION CANADA (DCC)

to allow for landfill monitoring activities at the FOX-M Hall Beach Distant Early Warning Line Site (DEW Line Site), which is located on the Melville Peninsula within the Qikiqtani Region of Nunavut at general latitude 68° 46' N and general longitude 81° 12 'W.

DECISION

After having been satisfied that the application did not require conformity with an approved Land Use Plan 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.

The NWB would like to acknowledge the receipt of a modification notice submitted under the previous Licence on June 8, 2007.

After reviewing the submission of the Applicant, the NWB, having given due regard to the facts and circumstances, scope and intent of the NLCA and of the NWNSRTA, decided to waive the requirement to hold a public hearing and determined that:

Licence No. 1BR-HAL0815 be issued subject to the terms and conditions contained therein. (Motion #: 2008-04-L17)

SIGNED this 19th day of August 2008 at Gjoa Haven, NU.

Thomas Kabloona

Nunavut Water Board, Chair

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I. INTRODUCTION

The FOX-M, Hall Beach DEW Line site is located on the east coast of the Melville Peninsula in the Foxe Basin area. The site is approximately two kilometres south of Hall Beach. The site is easily accessible by both road from Hall Beach and air by the community airstrip.

The FOX-M site was constructed in the 1950's as part of the DEW Line, which provided radar surveillance of the northern approaches to North America. In March 1985, Canada and the United States agreed to modernize the North American Air Defence System by closing the remaining 21 Department of National Defence DEW Line sites by the early 1990's, and build the North Warning System (NWS).

FOX-M underwent a site investigation from 1989 through to 1994. Site remediation started in 2003 and was completed in 2007. During the previous Licence term, two landfills were constructed and one landfarm. The pre-existing landfills on site were also inspected and remediated as necessary. The pre-existing landfills on site include the Billboards Landfill, G217-West Landfill, Hazmat Storage-East Landfill, Communications Northwest Landfill, Communications North Landfill and the East Beach Landfill. The two landfills that were constructed are the Non-Hazardous Waste Landfill and the Tier II Soil Disposal Facility.

As part of the remediation process under the previous Licence, demolition of existing facilities at the site was undertaken. This work was largely completed by 2006 and most of the demolition materials were landfilled in the Non-Hazardous landfill.

The soils from the landfarm that were remediated during the remediation phase were placed in the Non-Hazardous landfarm.

The Non-Hazardous Waste Landfill was used throughout the remediation phase and capped in 2007. The volume of material placed in the landfill is approximately 19,700 cubic meters.

The Tier II Soil Disposal Facility consists of two cells, the first cell was filled and closed in the 2006, whereas the second cell was filled and closed in 2007. The total volume of material in the Tier II Soil Disposal Facility is approximately 32,170 cubic meters.

In addition to the landfills created on-site, there was also disposal of materials off-site. Approximately 500 cubic meters of CEPA soils were identified and disposed of off-site.

During the course of the previous Licence, all the pre-existing landfills were inspected and maintained. The only landfill that required significant remediation was the East Beach Landfill. The remediation activities for this site were completed in 2007 and largely involved the redistribution of materials in the landfill and the shoring up of berms and cover materials.

The purpose of the proposed monitoring project, following remediation activities, is to ensure that contaminants in the landfills are properly isolated and contained, minimizing release into the environment. The monitoring plan put forward by the Licensee identifies the locations of many of the monitoring sites as well as the parameters that will be monitored.

The project is currently in the monitoring phase whereby the eight landfills that were constructed or remediated as part of the previous Licence are tested to ensure their proper performance. The onsite activities that are involved in the monitoring phase include:

- ➤ Visual monitoring for settlement, erosion, frost action, animal burrows, re-vegetation, staining, vegetation stress, seepage points, ponded water and debris exposure;
- > Soil sampling to determine quantities of PCBs, total petroleum hydrocarbons and inorganic elements;
- > Ground water sampling to determine quantities of PCBs, total petroleum hydrocarbons and inorganic elements; and
- > Thermal monitoring in order to assess permafrost aggradation in the landfills.

The monitoring program as presented is to be implemented in three phases. Phase I will involve annual monitoring of all landfills for a period of five years. The length of Phase I may be extended if proper stabilization is not achieved within five years. Phase II monitoring will take place in years 7, 10, 15 and 25. Phase III will address long term issues such as liner integrity and inspections are estimated to take place once every ten years.

The project does not require the use of a camp due to its proximity to Hall Beach and all activities will be scheduled out of the Hamlet.

II. PROCEDURAL HISTORY

Licence NWB5HAL0308 was issued to Defence Construction Canada ("DCC") on April 18, 2003 for the FOX-M Hall Beach DEW Line Site following the review of an application submitted January 29, 2003. This Licence was issued to allow DCC, through their consultants, to carry out remediation activities on site including the maintenance of existing landfills and construction of two new landfills for holding waste. This licence was amended on March 22, 2006 to allow for increased water use from thirty (30) cubic metres to one hundred (100) cubic metres per day. The Licence expired on April 30, 2008.

On February 19, 2008, an application for a water Licence renewal was filed with the Nunavut Water Board by DCC, for monitoring activities at the FOX-M Hall Beach DEW Line Site.

After having provided notice of the Application and inviting interested persons to make comment on the application, the NWB did not receive any comments on the application.

III. GENERAL CONSIDERATIONS

A. Term of the Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 45, the NWB may issue a licence for a term not exceeding twenty-five years. The NWB believes that a term of approximately seven (7) years is appropriate. The licence term will allow the Licensee to properly carry out the proposed activities under the terms and conditions of the Licence and will ensure that sufficient time is given to permit the Licensee to develop, submit and implement the plans required under the Licence to the satisfaction of the NWB.

B. Water Use

The Licensee has indicated that water use is not a requirement as the Hamlet of Hall Beach will function base for activities and as the source of all domestic water needs.

C. Deposit of Waste

Sewage

The Licensee has indicated that sewage disposal is not required as the Hamlet of Hall Beach will function base for activities.

Solid Waste

The Licensee indicated that solid waste is to be backhauled from the site during activities. As such, the Licensee is required to provide to the Board, documented authorization from the community of Hall Beach prior to the backhauling of any waste.

As the landfills have been closed, the Licensee shall not practice further on-site land filling of domestic waste, unless otherwise approved by the Board in writing.

Construction Wastewater

No construction wastewater is authorized under the terms of this icence.

Incinerator Ash

Incineration is not authorized under the terms of this Licence.

D. Annual Report

The requirements imposed on the Licensee are for the purpose of ensuring that the NWB has an accurate annual update of on-site monitoring results during a calendar year and verification that remediation activities are performing as predicted. This information is maintained on the Public Registry and is available to interested persons upon request. The requirements of this Annual Report can be found in Part B, Item 1.

E. Spill Contingency Planning

The Board generally requires that all Licensees prepare a comprehensive Spill Contingency Plan to establish a state of readiness to ensure a prompt and effective response to possible spills or system failure events. Due to the limited time for which activities will take place on site and the absence of stored chemicals or fuels, the Board has waived the need for a Spill Contingency Plan but has included conditions for response and reporting of spills associated with the use of all-terrain vehicles or trucks. The Licensee is encouraged to read the terms and conditions included in Part H of the Licence and implement all necessary policies in order to prevent the introduction of fuels and chemicals into the environment.

F. Abandonment and Restoration (A&R)

Restoration conditions have been included under Part I of the Licence.

G. Monitoring

Results of the on-site monitoring are to be forwarded to the NWB in the annual report.

LICENCE NO. 1BR-HAL0815

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

DEFI	ENCE CONSTRUCTION CANADA (DCC)
(Licensee)	
	ONSTITUTION SQUARE, SUITE 1720 LBERT STREET, OTTAWA, ON, K1A 0K3
(Mailing Addres	
hereinafter called the Licensee, restrictions and conditions contain	the right to alter, divert or otherwise use water for a period subject to ined within this licence:
Licence Number	1BR- HAL0815
Water Management Area	NUNAVUT 06
T	ALL BEACH DEW LINE SITE, QIKIQTANI REGION, NUNAVUT
	REMEDIATION - LANDFILL MONITORING ACTIVITIES
Classification of Undertaking	INDUSTRIAL – TYPE "B"
Quantity of Water Not to Exceed	WATER USE IS NOT AUTHORIZED
Date of Licence	AUGUST 19, 2008
Expiry Date of Licence	OCTOBER 30, 2015
Dated this19 th _ day of August	
T. Alla	
Thomas Kabloona Nunavut Water Board, Chair	

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. **Scope**

This Licence allows for the implementation of a post-closure monitoring program following remediation activities, during an undertaking classified as Industrial, at the FOX-M Hall Beach DEW Line site, located approximately two km south of the Hamlet of Hall Beach on the Melville Peninsula, within the Qikiqtani Region, Nunavut (at general latitude 68°46'and general longitude 81°12'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-HAL0815

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

"<u>Addendum</u>" 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.

"<u>Amendment</u>" 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 waters or a deposit of waste is permitted by a licence issued by the Board;

- "Board" means the Nunavut Water Board established under the *Nunavut Land Claims Agreement*;
- "Effluent" means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond or following a treatment process
- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the 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 Post-Construction Landfill Monitoring Program Water Use Licence Renewal, FOX-M, Hall Beach DEW Line Site" dated February 2008.
- "Final Discharge Point" means the point at which the Licensee no longer exerts care and/or control over the quality and/or quantity of the effluent from a treatment process;
- "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*;
- "Licensee" means the individual or organization to which Licence 1BR- HAL0815 Type "B" is issued or assigned;
- "Maximum Average Concentration" means the average concentration of any four consecutively collected samples taken from the identical sampling location and taken during any given timeframe;
- "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 Plan" means the Monitoring Plan entitled "Defence Construction Canada Post-Construction Landfill Monitoring Program Water Use Licence Renewal, FOX-M, Hall Beach DEW Line Site" dated February 2008, that identifies a 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;
- "Solid Waste Disposal Facilities" 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 29, 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;
- "<u>Toilet Wastes</u>" 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.

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 of all waste backhauled for disposal at licensed facilities;
 - 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. 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;
 - e. An analysis of data collected during the "Monitoring Program" and a brief description of any future studies planned by the Licensee;
 - 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;
 - 1. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - m. A brief summary of work done to address concerns or deficiencies listed in the

- inspection reports and/or compliance reports prepared by an Inspector;
- n. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
- o. 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, 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.
- 4. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
- 5. 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.
- 6. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate areas identifying the locations of the Solid Waste Disposal Facilities and the "Monitoring Program Stations". All postings shall be in the Official Languages of Nunavut.
- 7. 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 Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4298 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

- 8. 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.
- 9. 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.
- 10. This Licence is not assignable except as provided in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO WATER USE

1. No water use is authorized under this licence.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

- 1. The Licensee shall dispose of all Hazardous Waste by collection, containment and shipment off-site to a licensed disposal facility in accordance with the *Transportation of Dangerous Goods Act*, the *Environmental Protection Act*, Nunavut Territorial Regulations and Guidelines, and the Nunavut Hazardous Waste Disposal Manual.
- 2. All waste backhauled from the site shall be backhauled to a licensed waste disposal facility.
- 3. The Licensee shall provide to the Board, documented authorization from the operator of the licensed waste disposal facility where waste will be backhauled for disposal, prior to the backhauling of any waste.
- 4. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste and include this information within the Annual Report, Part B, Item 1.
- 5. 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 extraction of granular material, development and closure of landfills, movement of contractor's equipment and personnel around the site.
- 3. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.
- 4. The Licensee shall design and construct all stream crossings to minimize erosion and/or deposition of waste into water.
- 5. The Proponent shall not construct or disturb any stream, lakebed or the banks of any definable water course unless authorized by the Department of Fisheries and Oceans.
- 6. Granular materials must not be removed or gathered from below the ordinary high water mark of a creek, stream or from any water body.
- 7. 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.
- 8. The Licensee shall not use Calcium Chloride as a dust suppressant on site.
- 9. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes except what is for immediate use.
- 10. 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.
- 11. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
- 12. With respect to access road, pad construction 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 F: 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 d.
- 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 (CaCl₂) 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 G: CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS

- 1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities, Waste Disposal Facilities and the Monitoring Plan 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 2 have not been met can be carried out only with written approval from the Board.
- 3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The 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 a minimum of thirty (30) 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 for fuel and chemical storage and transfer facilities associated with this undertaking.
- 2. 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 fluids, waste and contain potential spills.
- 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 or Environment Canada's 24hr pager at (867) 766-3737 and to the DIAND Water Resources Inspector at (867) 975-4295; and
 - c. Submit to the DIAND 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 AND RESTORATION

- 1. The Licensee shall complete all restoration work prior to the expiry of this Licence.
- 2. Upon completion of work, all disturbed areas shall be scarified, stabilized and restored as practically as possible to a pre-disturbed state.
- 3. Where possible the Licensee shall revegetate disturbed areas using native vegetation.
- 4. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.

PART J: 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 Post-Construction Landfill Monitoring Program Water Use Licence Renewal, FOX-M, Hall Beach DEW Line Site" dated February 2008, and revisions to the Monitoring Plan, approved by the Board in writing.
- 2. The Monitoring Plan shall be updated to include maps and coordinates of all sampling locations upon final determination and monitoring has begun.
- 3. 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.
- 4. 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.
- 5. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
- 6. The Licensee shall conduct sample collection, storage, transportation and testing in accordance with the submitted Quality Control and Quality Assurance Plan (QA/QC) dated September 2005.
- 7. The Licensee shall review the QA/QC 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, unless directed otherwise by the Board.
- 8. The Licensee shall submit to the Board as part of the Annual Report required under Part B Item 1, the results of any 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.
- 9. The results of the Monitoring Program shall be included in the annual report submitted to the Board under Part B, Item 1.

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