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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

File No: ~~8BR-KRK~~ 1BR-KRK0609

October 13, 2006

Navjit Sidhu, Project Officer
Community & Government Services
Bag 200
Cambridge Bay, NU X0B 0C0
Email: nsidhu@gov.nu.ca

RE: NWB Licence No. ~~8BR-KRK0609~~ 1BR-KRK0609

Dear Mr. Sidhu:

Please find attached Licence No. ~~8BR-KRK0609~~ 1BR-KRK0609 issued to Community & Government Services by the Chief Executive Officer of the Nunavut Water Board pursuant to 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.

Sincerely,

Original signed by:

Philippe di Pizzo
Executive Director

PDP/rqd

Enclosure: Licence No. **~~8BR-KRK0609~~ 1BR-KRK0609**

cc: Jim Rogers, DIAND Iqaluit
Peter Kusugak DIAND Inspector
Jack Kaniak, Kitikmeot Inuit Association
Erin Calder, Nunavut Wildlife Management Board
Colette Spagnuolo, Environment Canada
Earle Baddaloo, GN-DOE
Tania Gordanier, Department of Fisheries and Oceans
Carson Gillis, NTI
Doug Sitland, CGS



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

DECISION

LICENCE NUMBER: ~~8BR-KRK0609~~ 1BR-KRK0609-Type “B”

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence dated May 25th, 2005 made by:

GOVERNMENT OF NUNAVUT DEPARTMENT OF COMMUNITY & GOVERNMENT SERVICES

to allow for the use of water and disposal of waste during operations at the Hydrocarbon-Impacted Soil Landfarm Facility, located within the Hamlet of Kugaaruk, Nunavut.

DECISION

After having been satisfied that the application was in conformity with the applicable Land Use Plan and 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 S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA) and Article 13 of the NLCA, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the NLCA and of the NWNSRTA, decided to waive the requirement to hold a public hearing and 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 NWNSRTA and determined that:

Licence Number ~~8BR-KRK0609~~ 1BR-KRK0609-Type “B” be issued subject to the terms and conditions contained therein. (Motion #: 2006-51)

SIGNED this 13th day of October, 2006 at Gjoa Haven, NU.

Original Signed By:

Philippe di Pizzo
Chief Administrative Officer

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I. INTRODUCTION

On May 25th, 2005 an application for a water license was filed with the Nunavut Water Board by Government of Nunavut for water use and waste disposal activities at the Government of Nunavut's Hydrocarbon-Impacted Soil Landfarm Facility located within the Hamlet of Kugaaruk, Nunavut (as per the site location identified through *Drawing No. 0222880801-SKT-M0001-A* found in Wardrop Engineering Ltd's June 5th, 2006 Response to the NWB *Subject: Proposed Landfarm – Kugaaruk*)

After having been satisfied that the application was in conformity with the applicable Land Use Plan and 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 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. No public concerns were expressed, and after reviewing the submission of the Applicant and representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *NWNSRTA*, decided to waive the requirement to hold a public hearing and 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 *NWNSRTA*.

II. 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 understands that the facility was constructed prior to the regulatory and public review period and prior to the issuance of a water licence. While the applicant makes no specific request for the term of the licence, other than "multi-year", the Board considers a term of three years appropriate. The licence term will allow the Licensee to properly carry out 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. Annual Report

In accordance with S. 15 of the Regulations every licensee shall maintain accurate and detailed books and records and shall submit a report to the Board each year on or before the anniversary of the date of issuance of the licence, setting out the quantity of water used under the licence and the quantity, concentration and type of any waste deposited under the licence. The requirements imposed on the Licensee in this licence are for the purpose of ensuring that the NWB has an accurate annual update of water use and depositions of waste during a

calendar year. This information is maintained on the public registry and is available to any interested parties upon request. As the Licensee could not provide data, studies, and sufficient discussion on matters pertaining to treatment efficiencies and treatment mechanisms the Board will expect the Licensee to provide a detailed Annual Report that adequately provides confidence to the Board that the facility is operating under favorable conditions. The information requests are based on best engineering practices and recommendations by interested parties including Environment Canada (EC), Government of Nunavut (GN) and/or Indian and Northern Affairs Canada (INAC).

C. Modification/Construction

In its application the GN has indicated that the LTF facility, and associated structures, has already been constructed. Construction was carried through without regulatory and public input as set in the public comments period outlined in **Part 55, Item 4** of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The Licensee has filed As-Built construction drawings as a requirement of the application. The NWB would like to inform that Licensee that prior to any construction/modification works following the date of issuance of ~~8BR-KRK0609~~ **1BR-KRK0609** that the Licensee shall follow and implement the provisions set under the Modification/Construction section of this Licence.

D. Spill Contingency Planning (SCP)

As required by S. 6 (2)(g) of the Regulation, where the undertaking involves the handling or storage of petroleum products or hazardous materials, the Board may require an applicant to file a plan for the safe handling, storage and disposal thereof, and a contingency plan for their containment and for the clean-up thereof in the even of a spill. 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. The site-specific spill contingency plan will assist the Licensee in responding to emergencies such that the impacts to water in particular and the environment and public health in general are minimized. The licence contains a requirement to keep on site a Spill Contingency Plan following the issuance of the Licence.

E. Abandonment and Reclamation (A&R)

In accordance with S. 6 (2) (h) of the Regulations the Board may also require an applicant to file plans for abandonment, or any temporary closing of the proposed undertaking. To ensure that all future abandoned facilities are reclaimed in an appropriate manner, the NWB requires the Applicant to submit an Interim and Final Abandonment and Restoration Plan. These plans are required as the Licensee can not confirm design and operational life of the LTF facility and as per the recommendation of Environment Canada. The Interim Abandonment and Restoration Plan shall be submitted to the NWB within six (6) months of issuance of this licence and shall take into account measures during short and long term closures. A Final Abandonment and Restoration Plan should also be submitted for Board approval sixty (60)

days prior to final closure.

F. Monitoring Requirements

The Licence issued by the NWB does not contain any requirements regarding the quality of effluent to be discharged from the facility. However, the NWB requires the Licensee to install best engineering practices and clearly report monitoring results. The Board also requires the Licensee to report all data and rationale associated in determining the quantification of waters and waste discharged and collected, all methods and procedures in obtaining such data, and any limitation in obtaining such data as identified by an Engineer. Monitoring is a function of the materials to be deposited in the LTF. The Licensee has not adequately characterized the materials to be deposited in the LTF, thus the NWB understands that an approach should be adopted to monitor various constituents in soils contained in the LTF and waters discharged from the LTF. The NWB believes that the Inspector can define the constituents to be monitored over time if he/she believes that additional monitoring is required. The NWB has also set guidelines for waters discharged from LTF. This framework has been set understanding that the Inspector can and will evaluate site specifics and come to judgment if further monitoring is required.

The Government of Nunavut and Environment Canada have provided some guidance into minimum monitoring requirements with respect to monitoring temporal frequencies as well as spatial considerations with respect to groundwater monitoring well location. Interveners have also recommended that to implement a thorough monitoring program to provide adequate data at various locations within and outside of the facility in order to assess potential impacts of landfarming operations on the receiving environment in general and on water in particular. Based on the results of the LTF monitoring program, the NWB reserves the right to amend the licence on its own motion to include regulated parameters for effluent discharge from the facility.

G. Additional Information to be Provided by the Licensee

The NWB understands that the LTF structure was constructed prior to the issuance of ~~8BR-KRK0609~~ **1BR-KRK0609** through the email filed (Thursday October 20th, 2005: *Re: Kugaaruk Landfarm Facility*, Navjit Sidhu) with the application and included as correspondence to be reviewed during the public review period. To instill confidence into the construction methods and design selected and presented to the NWB the NWB believes it is paramount to monitor the containment, treatment, operations, maintenance, sizing, discharge, and waste characterization functions of the appurtenant undertaking embodied in the application submitted. The monitoring and reporting requirements set out in ~~8BR-KRK0609~~ **1BR-KRK0609** will replace a full engineering audit of the facility. The NWB expects the Licensee to diligently adhere to the reporting set out in this licence (as short listed in **Table 1.1**) through the timelines set out by the Board.

As per the conditions of Water Licence ~~8BR-KRK0609~~ **1BR-KRK0609** the following documents, and partnered timelines, are to be submitted to the NWB:

Table 1.1 *Supplemental information to be submitted by Licensee*

Licence Condition	Report Title	Timeline for Submission
Part B, Item 1	Annual Report	To be submitted March 31 st of the year following the calendar year.
Part D, Item 1	Request to Discharge	To be submitted thirty (30) days prior to any planned discharge from the LTF or the Water Treatment Facilities.
Part D, Item 9	Operations and Maintenance Manual	To be submitted thirty (30) days prior to any discharge of soils and/or waters from the LTF.
Part D, Item 11	Remediated Soil and Rock Reject Usage Plan	To be submitted sixty (60) days prior to the discharge of soils from the LTF.
Part G, Item 1	Spill Contingency Plan	To be kept on site thirty (30) days following the issuance of licence.
Part H, Item 1	Interim Abandonment and Reclamation Plan	To be submitted six (6) months following the issuance of licence.
Part H, Item 2	Final Abandonment and Reclamation Plan	To be submitted sixty (60) days prior to the abandonment and Restoration of the LTF.
Part I, Item 10	Quality Assurance/ Quality Control Plan	To be submitted sixty (60) days following the issuance of licence.

LICENCE ~~8BR-KRK06090609~~ 1BR-KRK0609-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

**GOVERNMENT OF NUNAVUT
DEPARTMENT OF COMMUNITY & GOVERNMENT SERVICES**

(Licensee)

of

BAG 200, CAMBRIDGE BAY, NU X0B 0C0

(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:

~~8BR-KRK0609~~ 1BR-KRK0609 - Type "B"

Licence Number

NUNAVUT 07

Water Management Area

KUGAARUK, NUNAVUT

Location

WATER USE AND WASTE DISPOSAL

Purpose

MISCELLANEOUS

Classification of Undertaking

NOT APPLICABLE

Quantity of Water Not to Exceed

OCTOBER 13, 2006

Date of Licence

AUGUST 31, 2009

Expiry Date of Licence

Dated this 13th day of October, 2006 at Gjoa Haven, NU.

Original Signed By:

Philippe di Pizzo

Chief Administrative Officer

PART A: SCOPE, DEFINITIONS, AND ENFORCEMENT

1. Scope

- a. This License allows for the use of water and the disposal of waste for an undertaking classified as Miscellaneous at the Hydrocarbon Impacted-Soil Landfarm Treatment Facility within the Hamlet of Kugaaruk, Nunavut (as per the site location identified through *Drawing No. 0222880801-SKT-M0001-A* found in Wardrop Engineering Ltd's June 5th, 2006 Response to the NWB *Subject: Proposed Landfarm – Kugaaruk*)
- b. This License 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;
- c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation; and
- d. The Licensee shall notify the Board within thirty (30) of any decision to suspend temporarily its operations or enter into a Care and Maintenance phase.

2. Definitions

In this Licence: ~~8BR-KRK0609~~ **1BR-KRK0609 -Type "B"**

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

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

"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;

“Berm” means a sloped wall or embankment used to prevent inflow or outflow of material into/from the LTF area.

“Board” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“Care and Maintenance” in respect of a operation, means when the licensee ceases production or operation for an undefined period of time;

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

“Construction” means any activities undertaken to construct or build any component of, or associated with, the development of the Landfarm Treatment Facility;

“Deposit” means the placement of waste rock or other solids materials on land or in water;

“Discharge” means the release of any water or waste to the receiving environment;

“Effluent” means the liquid discharge from all site water management facilities;

“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;

“Engineered Structure” means any facility, which was designed and approved by a Professional Engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut;

“Landfarm Treatment Facility” or “LTF” comprises the area and associated infrastructure designed to contain and remediate hydrocarbon-impacted soils as described in the Water License Application.

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

“Licence” means this Type “B” Water Licence ~~8BR-KRK0609~~ 1BR-KRK0609, issued by the Nunavut Water Board in accordance with the *Act*, to the Government of Nunavut for the Landfarm Treatment Facility;

“Licensee” means to whom Licence ~~8BR-KRK0609~~ 1BR-KRK0609 is issued to or assigned to;

“Minister” means the Minister of Indian and Northern Affairs Canada;

“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;

“Reclamation” means the process of converting disturbed land back to its former or other productive use;

“Receiving Environment” means both the aquatic and terrestrial environments that receive any discharge resulting from the Appurtenant Undertaking;

“Regulations” means the *Northwest Territories Water Regulations SOR/93-303 8 June, 1993*;

“Seepage” means any water that drains through or escapes from any structure designed to contain, withhold, divert or retain water or waste;

“Soil Quality Remediation Objective (SQRO)” means the criteria set to determine the if remediated soils in the LTF are acceptable to Discharge. The stated objective limits are a function of the Receiving Environment;

“Surface Drainage” means all surface waters resulting from the flow over, through or out of an operations area and is collected by means of Engineered Structure;

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

“Stockpile Rejects Rock” means all rock materials obtained during the collection of soil to be remediated through the LTF that can not be remediated through normal LTF operations.

“Use” means use as defined in section 4 of the *Act*;

“Waste” means waste as defined in section 4 of the *Act*;

“Waste Water” means the water generated by site activities or originates on-site that requires treatment or any other water management activity;

“Water” means water as defined in section 4 of the *Act*;

“Water Licence Application” for the purposes of this License includes the totality of the NWB Public Registries established as a result of the filing of the application dated May 25th, 2005 and following correspondence submitted May 1st, 2006, and June 5th, 2006; and

“Water Treatment Facilities” means the activated carbon water treatment unit and associated piping, pumps, and splash pad used for collection and handling of surface runoff as identified in the final Water Licence Application.

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, Board approval, on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year reported which shall contain the following information:
 - i. A report of water use activities:
 - a. Quantity of water collected as surface runoff from the site or collected within the Bermed cells;
 - b. Quantity of water discharge daily to the treatment cells;
 - c. Quantity of water discharged to the receiving environment;
 - d. All data and rationale associated in determining the quantification of waters discharged and collected under **Part B, Item 1 (i)**, all methods and procedures in obtaining such data, and any limitation in

- obtaining such data as identified by an Engineer.
- e. All data
- ii. A report of waste disposal activities:
 - a. Characteristics of the soils present at the landfarm including; origin/source, volume and characteristics for each year being reported;
 - b. Site delineation identifying the origin/source of soils identified in **Part B, Item 1(ii)**.
 - c. Historical total tonnage of soil within the LTF;
 - d. Rate of degradation as determined by an Engineer;
 - e. Treatment efficiency, including but not limited to, frequency and method of tillage, the type and application rate of any land treatment amendments (i.e. water, air, lime, nutrients or inoculum which may be required) as determined by an Engineer;
 - f. Quantities of waste rock treated, stored and removed in and from the LTF;
 - g. Location, through site drawing delineation, and quality of discharge effluent entering and exiting the Water Treatment Facility;
 - h. Soil temperature profiles, pH, moisture contents, nutrient application. All information presented under this bullet shall be reported with appropriate delineation and spatial and temporal dimensioning considerations; and
 - i. All data and rationale associated in determining the qualitative and quantitative effects of each provision listed in **Part B, Item 1(ii)**, all methods and procedures in obtaining such data, and any limitation in obtaining such data as identified by an Engineer.
- iii. A list of unauthorized discharges and a summary of follow-up actions taken;
- iv. Revisions to the Spill Contingency Plan and Abandonment and Restoration Plan;
- v. Progressive reclamation work undertaken;
- vi. Dust control and the mitigation of surface water ponding in the LTF as per **Part D, Item 6**.
- vii. All information as required by **Part G** of the Licence;
- viii. Tabular summaries for all data and information generated under the “Monitoring Program” (as per **Part I** of Licence ~~8BR-KRK-1BR-KRK0609~~);
- ix. An analysis of data collected during the “Monitoring Program” (as per **Part I** of Licence ~~8BR-KRK-1BR-KRK0609~~) and a brief description of any future studies planned by the Licensee;
- x. Site photographs with complimentary documentation detailing the Water Treatment Facilities, LTF infrastructure, and general site; and
- xi. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
3. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes, to be operated and maintained to the satisfaction of an Inspector.
4. If the Licensee contemplates the renewal of Licence No. ~~8BR-KRK0609~~ **1BR-KRK0609**, 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. The NWB recommends that an application for the renewal of Licence No. ~~8BR-KRK0609~~ **1BR-KRK0609** be filed at least four months before the Licence expiry date.
5. If Licence No. ~~8BR-KRK0609~~ **1BR-KRK0609** requires an amendment; a public hearing may be required. 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 may vary depending on the scope of the amendment requested.
6. 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:

(i) Manager of Licensing:

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

(ii) 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

7. 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.
8. This Licence is not assignable except as provided in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO WATER USE AND WATER MANAGEMENT

1. The Licensee shall obtain all water for the appurtenant undertaking from excess surface runoff water accumulating along the perimeter edges of the treatment cells, unless otherwise authorized by the Board.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall provide at least thirty (30) days written notice to an Inspector and the Board prior to any planned discharges from the Cells and/or Water Treatment Facilities. The notice shall include the volumes proposed for discharge, the mass flux contaminant exiting the LTF through discharge, the effluent quality of the discharge, and any limitations the Engineer believes may exist in the determined/calculated mass flux contaminant determined, and determined effluent quality.
2. Any surface drainage from within the Landfarm Treatment Facility shall be treated by the Water Treatment Facilities to remove any residual hydrocarbons prior to discharge. Discharge shall only occur under the provisions of **Part D, Item 1**.
3. Areas designated for waste disposal that may impair the quality, quantity, or flow of water shall be located at least thirty (30) metres above the ordinary high water mark of any water body, unless otherwise authorized by the Board.
4. The Licensee shall direct all hydrocarbon-impacted soil to the Landfarm Treatment Facility, or as otherwise approved by the Board.
5. If the Licensee accepts large quantities of soil (i.e > 500 m³) wherein temporary storage is required then the contaminated soils shall be temporarily stored within the Landfarm Treatment Cells to the satisfaction of an Inspector or as otherwise approved by the Board.
6. The Licensee shall ensure temporary storage areas are maintained such that dust control measures are implemented and surface ponding of water is minimized. The Licensee shall provide a brief commentary, through the Annual Report submission (**Part B, Item 1**) on how this has been achieved over the course of operations.
7. The Licensee shall ensure that all Stockpile Rejects Rock washing is done within the

inner boundary of the containment Berms of the Landfarm Treatment Facility.

8. The Licensee shall maintain the Landfarm Treatment Facility to the satisfaction of an Inspector.
9. The Licensee shall submit to the Board for approval and thirty (30) days prior to any discharge of soils and waters from the LTF, an *Operation and Maintenance Manual* that includes, but is not limited to, the following:
 - i. Employs engineering best practices as determined and qualified by an Engineer;
 - ii. Consults, considers, and appropriately references Environment Canada's *Appendix A: Landfarming Information* (Environment Canada' July 10th, 2006 Intervention statement);
 - iii. Installs operation and maintenance best practices to ensure that LTF structural integrity and functionality is maintained to the standards of an Engineer and limits any impacts to water through the deposition of waste carried through the appurtenant undertaking;
 - iv. Specific detail into how rejected rock washing will be completed within the containment Berms of the LTF.
 - v. All details involved in providing aeration to the soils in the LTF, including but not limited to, specifications and dimensioning of the machinery to be used and methods in how to aerate soils for remediation;
 - vi. Training to be provided to all workers who operate machinery and complete any works in and around the LTF;
 - vii. Frequency and depth of tillage;
10. The Licensee shall implement the following measures to the satisfaction of an Inspector:
 - i. Mitigation to avoid precipitation and waters to enter the LTF; and
 - ii. Remedial measures to counteract any deterioration or erosion to the LTF and LTF surroundings;
11. The Licensee shall submit to the Board for approval, a Remediated Soil/Rock Reject Usage Plan at least sixty (60) days prior to the removal of any soil/rock from the Landfarm Treatment Facility intended for alternative use on or outside the LTF. The Plan shall include but necessarily be limited to the following:
 - a. the intended usage of the soil;
 - b. the Soil Quality Remediation Objective (SQRO);
 - c. the site specific chemical and physical conditions in the receiving soil environment;
 - d. Full suite parameter analysis prior to final use to ensure that remediation

criteria have been met.

12. The Licensee shall ensure that the remediation criteria adopted are protective for all PHC fractions as per the end use of the soil.
13. If the Licensee decides in using of Stockpiled Reject Rock as a construction material within the LTF property the Licensee shall submit monitoring, as determined and qualified by an Engineer, information confirming material acceptable as construction fill material.
14. The Licensee shall treat all waters within the LTF by means of the Water Treatment Facilities unless specifically advised by an Inspector.
15. 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.
16. 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.
17. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Landfarm Treatment Facility provided that such Modifications are consistent with the terms of this License 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 License or the *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 Modifications.
2. Modifications for which all of the conditions referred to in **Part E, Item 1** that 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 License within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped and signed by an Engineer.

PART F: CONDITIONS APPLYING TO CONSTRUCTION

1. At least sixty (60) days prior to the commencement of construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or waste, including facilities or systems for the treatment of hydrocarbon contaminated soil, the Licensee shall submit to the Board for approval, design drawings and plans stamped by an Engineer.
2. The Licensee shall provide to the Board, within ninety (90) days of completion of the construction of any dams, dikes or structures intended to contain, withhold, divert or retains water or Waste, including facilities or systems for the treatment and disposal of hydrocarbon contaminated soil, all respective design drawings and construction reports, including as-built drawings, documentation of field decisions that deviate from original plans, and any data used to support these decisions as appropriately qualified by an Engineer.
3. The Licensee shall submit required by **Part F, Item 2** details for the construction and installation of the groundwater monitoring wells.
4. Any earthworks material must be obtained from an approved source.

PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. In accordance with section 6(2)(g)(i) and (ii) of the Regulations, the Licensee shall, within thirty (30) days of issuance of this Licence, keep on the site of operations a Spill Contingency Plan that will describe how petroleum products and hazardous materials will be handled, stored and disposed of, as well as how they will be contained and cleaned-up in the event of a spill. This Plan shall include, but not be limited to, the following:
 - i. The name, address and contact number for the person in charge, management or control of the contaminant (in this case, fuel oil and any other chemicals associated with the program);
 - ii. The name and address and telephone number of the employer;
 - iii. The name, job title and 24 hour contact number for the person or persons responsible for activating the spill plan;
 - iv. A detailed description of the facility, including its geographic location – in UTM coordinates (map sheet number, Eastings and Northings) and geographic coordinates (Lat/Long) – size and storage capacity;
 - v. A description of the type and amount of contaminants stored on site;
 - vi. A description of the spill prevention measures to be undertaken in the handling, storage and disposal of petroleum products and hazardous materials;

- vii. Steps taken to report, contain, clean up and dispose of a spill;
 - viii. A site map of sufficiently large scale to show the location of buildings, contaminants storage areas, sensitive areas such as water bodies, probable pathways of contaminant flow and general topography;
 - ix. A description of the spill response training provided to employees who will respond to a spill;
 - x. An inventory and location of the response and clean up equipment available to the spill clean up team;
 - xi. The means by which the spill plan is activated; and
 - xii. The date that the spill plan was prepared.
2. The Licensee shall annually review the Plan referred to in this Part and if needed, modify it to reflect changes in operation and/or technology. The Plan and any revisions shall be submitted with the Annual Report.
 3. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
 4. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
 5. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - i. Employ the Spill Contingency Plan;
 - ii. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - iii. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

PART H: CONDITIONS APPLYING TO ABANDONMENT AND RECLAMATION

1. The Licensee shall submit to the Board for approval, six (6) months following issuance of this licence, a stand alone Interim Abandonment and Reclamation Plan. The Licensee shall develop such plan through the guidance of *Guidelines for*

Abandonment and Restoration Planning for Mines in the Northwest Territories published by the NWT Water Board and Indian and Northern Affairs Canada.

2. The Licensee shall submit to the Board for approval, sixty (60) days prior to the final abandonment and Restoration of the LTF, a stand alone Final Abandonment and Reclamation Plan. The Licensee shall develop such plan through the guidance of *Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories* published by the NWT Water Board and Indian and Northern Affairs Canada.
3. If not approved by the Board, the plans referred to in **Part H, Items 1 and 2** shall be revised and resubmitted within thirty (30) days of receiving notification of the Board's decision.
4. The Licensee shall annually review any approved Interim Abandonment and Restoration Plan and modify the Plan as necessary to reflect changes in personnel, operations and/or technology. Any proposed modifications to the Plan shall be submitted to the Board as an addendum to the original Plan in accordance with **Part B, Item 1(iv)**.
5. The Licensee shall complete the restoration work within the time schedule specified in the approved Plan, or as subsequently revised and approved by the Board.
6. The Licensee shall endeavor to carry out progressive reclamation for any components of the project no longer required for the Licensee's operations.
7. The Licensee shall notify the Board of its intention to proceed with final abandonment of the undertaking at least six (6) months prior to the planned dates of closure.

PART I: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall sample soil no less frequently than once every four months, during the period of active land treatment to monitor contamination levels until analytical results are below acceptable levels as set forth in the CCME's Canadian Soil Quality Guidelines.
2. The Licensee shall sample groundwater from down gradient monitoring wells no less frequently than twice per year. This sampling shall occur once during spring freshet and once during mid-summer and shall be analyzed for indicators of petroleum hydrocarbon contamination. The Licensee shall analyze for Total Petroleum Hydrocarbons, Polycyclic Aromatic Hydrocarbons, Polychlorinated Biphenyls, BTEX (Benzene, toluene, Ethylbenzene, Xylene) and Heavy Metals as defined by CCME (Canadian Council of Ministers of the Environment).

3. The Licensee shall conduct and complete sampling and data interpretation to establish baseline groundwater flow prior to the deposit of waste into the LTF. The baseline data shall best represent actuality to the satisfaction of the Engineer.
4. The Licensee, through the qualification of an Engineer, shall report all limitations in collecting data as per the standard operating procedures employed in collecting the data to be reported under **Part I**. This includes, but is not limited to, shipping and handling procedures, monitoring well installation, and water sampling techniques.
5. The Licensee shall conduct and complete sampling on all waters, following activated carbon treatment through the Water Treatment Facilities, to be discharged from the LTF. The Licensee shall consult *CCME's Standard for Freshwater Aquatic Life* for surface water reception for testing constituents and ensure that waters leaving the Water Treatment Facilities as discharge are below CCME standards. As per **Part I, Item 13** the Inspector may impose additional monitoring on what constituents outside of *CCME's Standard for Freshwater Aquatic Life* are to be sampled on waters discharged from the LTF to the Receiving Environment.
6. The Licence shall consult, consider, and appropriately reference Environment Canada's *Appendix A: Landfarming Information* (Environment Canada' July 10th, 2006 Intervention statement) in completing the requirements for all Items under **Part I: Conditions Applying to the Monitoring Program**.
7. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of the location the constructed splash pad and provide this information in the Annual Report.
8. 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.
9. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
10. The Licensee shall within sixty (60) days of issuance of this licence submit to the Board for approval a Quality Assurance/Quality Control Plan in accordance with INAC "*QA and QC Guidelines for use by Class "B" Licensees in Collecting Representative Water samples in the Field and for submission of a QA/QC Plan (1996)*".
11. If not approved, the Plan referred to in **Part I, Item 10** shall be revised and resubmitted within thirty (30) days of receiving notification of the Board's decision.

12. The Plan referred to in **Part I, Item 10** shall be implemented as approved by an Engineer.
13. An Inspector may impose additional monitoring requirements.
14. The Licensee shall, within thirty (30) days following the month being reported, submit to the Board all data and information required by the “Monitoring Program”, including the results of the approved QA/QC Plan.
15. The Licensee shall include summaries all of the data and information required by the “Monitoring Program” in the Licensee's Annual Report, as required per Part B, Item 1.
16. Modifications/Amendments to the Monitoring Program may be made only upon written approval of the Chief Administrative Officer.