



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
OFFICE DES EAUX DU NUNAVUT

File No.: **1BH-RFS0910**

November 20, 2009

Marc Losier
Project Manager
Mosher Engineering Limited
1869 Upper Water St. Suite AH202
Halifax, NS B3J 1S9
Email: marc@mosher.ca

RE: NWB Licence No. 1BH-RFS0910

Dear Mr. Losier,

Please find attached Licence No. **1BH-RFS0910** issued to Mosher Engineering Limited by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee will be in contravention of the *Nunavut Land Claims Agreement* (NLCA) and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA). 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.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.¹

¹ Indian and Northern Affairs Canada (INAC), July 24, 2009; Environment Canada (EC), August 10, 2009; Government of Nunavut – Department of Environment (GN-DOE), August 10, 2009 and Government of Nunavut – Department of Culture, Language, Elders and Youth (GN-CLEY), July 29, 2009

Sincerely,



Thomas Kabloona
Nunavut Water Board
Chair

TK/dc

Enclosure: Licence No. **1BH-RFS0910**
 Comments-

cc: Distribution – Kivalliq

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DECISION

LICENCE NUMBER: 1BH-RFS0910

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated May 13, 2009 for a new Water Licence made by:

MOSHER ENGINEERING LIMITED

to allow for the disposal of waste during hydrostatic testing at the at the Rankin Inlet Fuel Storage Facility located within the Kivalliq Region, Nunavut generally located at the geographical coordinates as follows:

Latitude: 62° 48'N Longitude: 92° 04'W

DECISION

After having been satisfied that the application was in conformity with the Keewatin Regional Land Use Plan and exempt from the requirement for screening by the Nunavut Impact Review Board in accordance with Schedule 12.1 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* (NWSRTA) 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 considering the 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 *NWSRTA*, waived the requirement to hold a public hearing, and determined that:

Licence Number 1BH-RFS0910 be issued subject to the terms and conditions contained therein. (Motion #: 2009-14-L02)

SIGNED this 20th day of November 2009 at Gjoa Haven, NU.



Thomas Kabloona
Nunavut Water Board
Chair

TK/dc



NUNAVUT WATER BOARD WATER LICENCE

Pursuant to the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

MOSHER ENGINEERING LIMITED

(Licensee)

1869 UPPER WATER ST. SUITE AH202, HALIFAX, NS, B3J 1S9

(Mailing Address)

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

Licence Number/Type: 1BH-RFS0910 TYPE "B"

Water Management Area: NUNAVUT 06

Location: KIVALLIQ REGION, NUNAVUT

Classification: INDUSTRIAL UNDERTAKING

Purpose: DEPOSIT OF WASTE

Quantity of Water use not
to Exceed: NO WATER USE

Date of Licence Issuance: NOVEMBER 20, 2009

Expiry of Licence: NOVEMBER 30, 2010

This Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Thomas Kabloona,
Nunavut Water Board
Chair**

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the disposal of waste resulting from hydrostatic testing for an industrial undertaking as per Schedule II of the *Regulations* at the Rankin Inlet Fuel Storage Facility, located within the Hamlet of Rankin Inlet within the Kivalliq Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

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

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report.

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

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

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

“**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;

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

“Licensee” means the holder of this Licence;

“Modification” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“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;

“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;

“Sump” means an excavation in impermeable soil for the purpose of catching or storing water or waste;

“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, containing the following information:
 - a. A summary report of waste disposal activities;
 - b. A list of unauthorized discharges and a summary of follow-up actions taken;
 - c. Any revisions to the Spill Contingency Plan, including contact information, as required by Part H, Item 2, submitted in the form of an Addendum;
 - d. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
 - e. A summary of all information requested and results of the Monitoring Program; and
 - f. 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, 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 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) **Manager of Field Operations:**
Field Operations, INAC
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. 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.
9. This Licence is assignable as provided in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO THE PROTECTION OF WATER

1. The Licensee shall not remove any material from below the ordinary high water mark of any freshwater body unless authorized.
2. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
3. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water. Effluent discharge rate and volume shall be sufficient to not cause erosion and the generation of sediment within the ditch.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty one (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise approved by the Board in writing.
2. The Licensee shall provide to the Board, documented authorization from the community of Rankin Inlet prior to the backhauling of any waste.
3. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation in an approved waste disposal site.

4. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
5. Any waters utilized in hydrostatic testing operations shall be treated using a hydrophobic sorbent filter system and solid particle collector prior to discharge.
6. All discharge of effluent at Monitoring Station RFS-1, shall not exceed the following effluent quality limits:

Parameter	Maximum Concentration of Any Grab Sample
Benzene (µg/L)	370
Toluene (µg/L)	2
Ethylbenzene (µg/L)	90
Lead (dissolved) (µg/L)	1
Oil and Grease (mg/L)	15 and no visible sheen
Total Suspended Solids (mg/L)	15
pH	6.0 - 10.5

7. If effluent does not meet the quality limits of Part D, Item 6 above, it shall be considered hazardous waste and disposed off-site at an approved facility.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Board has approved the Plan entitled “Rankin Inlet Fuel Storage Facility Upgrade and Expansion, Tank Hydrostatic Testing Procedure” that was received with the application on May 14, 2009.
2. The Licensee shall submit to the Board for review, within thirty (30) days of Licence issuance,, an addendum to the Plan referred to in Part E, Item 1 that addresses:
 - a. the reference to fresh water and Repulse Bay ~~Ray~~ ;
 - b. Includes testing parameters and discharge limits; and
 - c. relevant comments raised by interested parties submitted during the application review.
3. Camp use is not authorized under this Licence.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. The Licensee is not authorized to drill under the provisions of this Licence.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision
 - d. 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
 - e. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Licensee shall submit within thirty (30) days of issuance of the Licence, a Spill Contingency Plan, in the format set out by the Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93 that addresses comments received by interested parties.
2. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report.
3. The Licensee shall prevent 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 one (31) 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:
 - a. Employ the Spill Contingency Plan;

- b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Manager of Field Operations at (867) 975-4295; and
- c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING

- 1. The Licensee shall complete all restoration work prior to the expiry of this Licence.
- 2. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
- 3. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
- 4. The Licensee shall remove from the site, all infrastructure and site materials specifically on site for the purposes of the hydrostatic testing program prior to the expiry of this Licence.
- 5. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
- 6. Areas that have been contaminated by hydrocarbons during hydrostatic testing shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, January 2002. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
- 7. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

- 1. The Licensee shall maintain Monitoring Program Stations and implement the program as described in the table below and the conditions under this Part.

Monitoring Program Station Number	Description	Frequency	Status
RFS-1	Hydrostatic Testing Effluent prior to discharge	Twice per tank, once at beginning and at 75% complete discharge	Active (Quality)
RFS-2	Ditch prior to outlet to Marine Environment	Prior to, mid way and following completion of annual discharge activities	Active (Quality)

2. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where wastes associated with the undertaking are deposited.
3. The Licensee shall sample at Monitoring Station RFS-1 for the parameters listed under Part D, Item 6.
4. The Licensee shall sample at Monitoring Station RFS-2 for the following parameters:

Benzene	Lead (dissolved)
Toluene	Oil and Grease
Ethylbenzene	Total Suspended Solids
pH	
5. The Licensee shall maintain a photographic record of the creek with photos taken prior to any discharge, midway through discharge and following completion of discharge to the creek. Photos will be taken of the outlet area to the creek and another section downstream of where effluent
6. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
8. The Licensee shall include in the Annual Report required under Part B, Item 1 all data, monitoring results and information required by this Part.