



INAC, Nunavut District  
P.O. Box 2200  
Qimuggjuk Building  
Iqaluit, NU, X0A 0H0

Our File: 3BM-KIM0207  
Your File: \_\_\_\_\_  
CIDM # 191310

January 8, 2008

Mitzy  
Economic Development Officer &  
A/ Senior Administrative Officer  
Box 120  
Kimmirut, Nunavut  
X0A 0N0

**RE: July 13<sup>th</sup>, 2007 Municipal Water Licence 3BM-KIM0207**

The Inspector would like to thank Mitzy the Economic Development Officer and acting SAO for the municipality for taking the time to meet during the inspection period and for acting as guide while conducting the inspection of the potable water source, waste treatment system and waste management areas.

**Part A: Scope and Definitions**

No issues were found with respect to the information contained within the current license.

The license is classed as water use and waste disposal for Municipal Undertakings as indicated on the license form.

**Part B: General Conditions**

It should be noted that during the period of inspection the Municipality of Kimmirut was operating under a current water license. That license was issued the 1<sup>st</sup> of September 2002 and was scheduled to expire August 30<sup>th</sup>, 2007.

A review of the Nunavut Water Board FTP site during the period of Inspection failed to produce an application or any supporting documents required in the application process for a renewal of the current water license. The Municipality is reminded that any use of water or deposition of waste into any place where it may enter water in Nunavut requires a license issued pursuant to the Nunavut Water and Nunavut Surface Rights Tribunal Act.

The licensee is reminded that the application process may take as long as three to six months. The licensee is strongly encouraged to submit their application as soon as possible to avoid the possibility that they will be forced to operate contrary to the legislation.

During the same review of the Nunavut Water Board FTP site the Inspector did locate the required annual report for the year 2006 in accordance with the current license. The licensee is reminded that an annual report is required to be filed by March 31<sup>st</sup> 2008 for the year ending December 31<sup>st</sup> 2007. This report is to include all items noted in this Part under Section 1 (I through viii).

The Licensee is also reminded that included in the annual reports are the results of the Monitoring Program as outlined in Part H of the current license. As per section 2 of this Part the Licensee is required to comply with the Monitoring program and submit the results of samples collected under the monitoring program.

During the period of Inspection the Inspector also noted that there did not appear to me a meter or volumetric measuring system installed on the intake system contrary to section 4 of this Part. The licensee is required to address this deficiency by the period of the next inspection.



During the inspection it was also noted that the license holder has not installed signage at many of the stations noted under the Surveillance Network Program.

### **Part C: Conditions Applying to Water Use**

The raw water from Fundo Lake is pumped through the pipeline to the pumping station where it is chlorinated before being piped into the water delivery trucks for the community. All appeared to meet the requirements of the license during the inspection however no records of chlorine monitoring were noted within the pumping station. The licensee is reminded that the chlorine residual should be measured twice daily and recorded in a log for review by the Inspector.

A visual inspection of the in-take pipe line and intake facilities was conducted during the period of inspection. No issues were noted. Water samples were collected near the intake pipe from Water Source Lake.

### **Part D: Conditions Applying to Waste Disposal**

#### **Sewage treatment;**

The Licensee is responsible for ensuring that effluent entering the environment meets the following standards;

<b>Parameter:</b>	<b>Max Concentration</b>
Faecal Coliform	1X 10 <sup>6</sup> CFU/dl
BOD	120 mg/L
TSS	180 mg/L
Oil & Grease	No visible sheen
PH	Between 6 and 9

The licensee is reminded that these parameters are set by the Nunavut Water Board and are included in the terms and conditions of the issued water license. Compliance with these terms is an obligation of the Municipality.

Samples collected from the receiving environment approximately 50 m from the lagoon returned one result in excess of the Canadian Council of Ministers of the Environment (CCME) Guidelines on the Protection of Aquatic Life.

<b><u>Parameter</u></b>	<b><u>Result</u></b>	<b><u>CCME</u></b>
(Trace metals -Total )		
Iron	1660 µg/L	300 µg/L

Pursuant to Section 5 and Section 6 of this Part;

5. The Sewage Lagoon shall be maintained and operated in such a manner as to prevent structural failure.
6. The Licensee shall maintain the Sewage Disposal Facilities to the satisfaction of an Inspector

The Inspector has concerns that these sections of the license are not being followed or can not be followed by the Licensee. During the period of inspection the inspector noted and photographed the following issues with the Kimmirut waste water management system located in the Municipal dump.

1. No Sewage Lagoon is present on site; rather a ditch to funnel raw sewage down hill and into the ocean is used to manage raw human waste (contrary to the existing license and noted in the last three inspection reports made by INAC.

As noted in previous correspondence with the Licensee on August 23<sup>rd</sup>, 2004, January 5<sup>th</sup>, 2007 and February 1<sup>st</sup>, 2007 the Municipality is aware of these issues and has called upon the Government of Nunavut Department of Community Government and Services for Assistance in addressing these issues of non-compliance.



### **Solid Waste Management Area;**

Within the Solid Waste disposal facilities the Inspector noted the following;

- Segregation of materials into Bulk Metals and Hazardous wastes is not being done in the municipality.

The Inspector strongly encourages the community comply with Section 8 of this Part and to segregate hazardous materials into one section of the Bulk waste management area while installing a liner to contain spills or leaks that may occur during the transportation and storage of these hazardous materials and waste oil.

### **Part E: Conditions Applying to Modifications and Construction**

A review of the Nunavut Water Board FTP site noted a document entitled; Municipal Status Report Summary for the community of Kimmirut. This review was dated December 18th, 2007. The Document indicates that the Licensee has submitted the required As-Built Drawings as required by this Part.

### **Part F: Conditions Applying to Operation and Maintenance**

The Water Intake Facility was well maintained and found to be working and in good order.

The Inspector notes that the same summary report as listed above notes that the Operations and Maintenance Manual due by September 1<sup>st</sup>, 2003 has not yet been filed by the licensee.

### **Part G: Conditions Applying to Abandonment and Restoration**

A search the Nunavut Water Board FTP site was not able to locate any documents related to this file submitted by the Licensee. Municipal Status Report Summary for the community of Kimmirut also indicates that this Plan has not been submitted within the required 90 days of the issuance of the license.

### **Part H: Conditions Applying to the Surveillance Network Program (Monitoring Program)**

The Inspector identified in this inspection and that of 2006 the lack of signage and warnings at all of the SNP stations within the Municipality.

The Licensee is required to sample, during the months of May to August inclusive the following parameters;

<b><u>Parameters</u></b>	
BOD	Faecal Coliforms
pH	Conductivity
Total Suspended Solids	Ammonia Nitrogen
Nitrate-Nitrite	Oil and Grease (visual)
Total Phenols	Sulphate
Sodium	Potassium
Magnesium	Calcium
Total Arsenic	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
Total Zinc	



These samples are to be collected and analysed in accordance with a Quality Control / Quality Assurance plan. The outline of which was to be provided to the Community within 60 days of the issuance of this license by the Nunavut Water Board. There is no indication that the required plan was submitted to the Municipality by the Nunavut Water Board nor that the Municipality has collected the required samples.

The Nunavut Water Board is reminded that failure to comply with terms of licenses issued by the Board puts the validity of the issued license in question.

**Non-Compliance:**

The Municipality is required to complete the following;

- Submit the required Annual reports
- Maintain the appropriate signage, and Surveillance Network Program (SNP)
- Develop a Quality Assurance/ Quality Control Plan (contact the Nunavut Water Board)
- Develop a Solid Waste Disposal Operations and Maintenance Manual
- Address concerns identified by the Inspector concerning the Sewage Lagoon
- Submit the required Abandonment and Restoration plans as required
- Collect and submit for analysis the samples required on the Monitoring Program

**A. Keim**

**Inspector's Name**

**Inspector's Signature**

Attached under separate cover;  
Photos taken during Inspection of July 20<sup>th</sup>, 2007

Cc:

Peter Kusugak – Manager Field Operations section- Indian and Northern Affairs Canada  
Phyllis Beaulieu – Manager licensing – Nunavut Water Board