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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File: 3BM-PAN0810

August 24, 2009.

The following summary report was prepared to take into consideration all information received as of August 20, 2009.

**Subject: Assessment of Administrative Compliance for the Hamlet of Pangnirtung's Municipal Water Licence.**

The Nunavut Water Board ("NWB") has taken the opportunity to summarize the information received pursuant to water Licence 3BM-PAN0810.

#### LICENCE

Renewal issued: August 8, 2008.

Scope:

- Operation of the existing Waste Water Treatment Plant; and
- Operation of the existing Solid Waste Disposal Facility.

Licence expiry: August 31, 2010.

The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date.

#### ENFORCEMENT

Inspection Reports:

Year of Inspection:	Date Conducted
2007	July 19, 2007.
2008	August 17, 2008.
2009	July 27, 2009.

Issues raised in 2008/2009 inspections:

- Ongoing issues with the disposal of sewage sludge and fish offal at the landfill;
- Unacceptable water quality discharge from the treatment plant. The treatment plant is unable to process the amount of wastewater produced;
- No water intake meter;
- A new location for the water intake infrastructure is required because the river bank has become unstable;
- Monitoring requirements not undertaken; and
- Monitoring station signage absent.

## GENERAL CONDITIONS (PART B)

Licence Condition	Requirement	Status
B,1	The Licensee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported (see condition for report contents).	2008 - Not received (nothing on file since 2003). 2009 - Due March 31, 2010.
B,4	Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licensee.	Water intake flow measuring device listed as unacceptable in the 2008 and 2009 inspection reports.
B,10	The Licensee shall submit to the Board for approval, within ninety (90) days of Licence issuance or upon the filing of any application in relation to the Licence within that time, a <u>Plan for Compliance</u> that clearly demonstrates the measures the Licensee will undertake, including an implementation schedule, to achieve full compliance with the conditions of this Licence, including the issues raised in the Inspector's Reports.	Due November 8, 2008. Not on file.

## WATER USE (PART C)

Licence Condition	Requirement	Status
C,2	The annual quantity of water, used for all purposes, shall not exceed one hundred thousand (100,000) cubic metres.	Unknown. Flow measuring device is unacceptable according to inspection reports and the pumping station was locked during the 2009 inspection.

# WASTE DISPOSAL (PART D)

Licence Condition	Requirement	Status
D,2	All Effluent discharged from the Waste Water Treatment Plant at Monitoring Program Station PAN-3 shall not exceed the following Effluent quality limits: (see table in Licence).	2009 inspection report states: "The treatment plant is not operating as required. The plant is unable to process the quantities of effluent being produced locally. Discoloration on the dispersion field was noted as having increased in dimension since last inspection. There appears to be untreated effluent discharging from the plant and building up on the rocks".
D,3	All Effluent discharged from the Waste Water Treatment Plant at Monitoring Program PAN-3, shall be demonstrated to be Not Acutely Toxic	Unknown as there is no monitoring data. However, see item D,2 above.
D,5	The Licensee shall segregate and store all hazardous materials and/or hazardous waste within the Solid Waste Disposal Facility in a manner as to prevent the deposit of deleterious substances into any water until such a time as proper disposal arrangements are made.	<p>2008 inspection report indicates that the waste management area requires segregation.</p> <p>GN-CGS letter of December 8, 2008 states that they are exploring options for solid waste management but that there is no funding and that an O&amp;M plan for the landfill can't be produced at this time.</p> <p>The 2009 inspection report further states that the "Municipal Landfill requires work. Segregation of Hazardous wastes into a containment area as well as the removal of waste oil barrels into a lined containment area is required. Metals area requires sorting".</p>
D,6	The Licensee shall dispose of and contain all fish processing wastes at the Solid Waste Disposal Facility, in a pit excavated below the active layer-permafrost interface. Fish wastes deposited at the Solid Waste Disposal Facility shall be treated with lime, and covered with soil prior to the onset of the annual Spring freshet and then weekly thereafter during June, July, August and September.	The 2008 inspection report states: "Fish Offal and sludge from Treatment system not buried as required. This CONTINUES to be an issue". Further, the 2009 inspection again states: "Sewage sludge remains unburied and fish offal also remains on site unburied".

## CONSTRUCTION AND MODIFICATIONS (PART E)

Licence Condition	Requirement	Status
E,2	The Licensee shall submit to the Board for review, following the emergency remediation work resulting from flooding in 2008, as-built drawings of water and waste related facilities constructed.	Not on file.

## OPERATIONS AND MAINTENANCE (PART F)

Licence Condition	Requirement	Status
F,1	<p>The Licensee shall submit to the Board for approval, within ninety (90) days of issuance of the Licence, an Operations and Maintenance Manual, prepared where appropriate, in accordance with the <i>"Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories; 1996"</i>. The Manual shall take into consideration the comments received during the application review process and shall contain the following plans:</p> <ul style="list-style-type: none"> <li>a. <i>Water Distribution Facility Operation and Maintenance (O&amp;M) Plan;</i></li> <li>b. <i>Waste Water Treatment Plant Operation and Maintenance (O&amp;M) Plan;</i></li> <li>c. <i>Fish Process Plant Waste Management Plan;</i></li> <li>d. <i>Sewage Sludge and Screenings Management Plan;</i></li> <li>e. <i>Solid Waste Disposal Facility Operation and Maintenance (O&amp;M) Plan;</i></li> <li>f. <i>Spill Contingency Plan; and</i></li> <li>g. <i>Monitoring Program Quality Assurance/Quality Control Plan (QA/QC Plan).</i></li> </ul>	<p>Not on file. Due November 8, 2008.</p> <p>Letter of December 8, 2008 submitted by GN-CGS indicated that consultants were working on items <i>a</i> and <i>b</i>. However, there has been no follow-up since.</p>
F,3	An inspection of all engineered facilities related to the management of water and waste shall be carried out annually in July or August by a Geotechnical Engineer. The engineer's report shall be submitted to the Board within sixty (60) days of the inspection, including a covering letter from the Licensee outlining an implementation plan addressing each of the Engineer's recommendations.	Due October 31 of each year. Not on file.

## ABANDONMENT AND RESTORATION (PART G)

Licence Condition	Requirement	Status
G,1	The Licensee shall submit to the Board for approval, within six (6) months of licence issuance, an Abandonment and Restoration Plan for the old sewage pump out station.	Due February 8, 2009. Not on file.

## MONITORING (PART H)

Licence Condition	Requirement	Status
H, 1-11	Monitoring program requirements	Nothing on file. 2008 inspection reports states: "The Hamlet of Pangnirtung had very serious issues with the spring freshet. The Community has not been collecting samples as required. A Direction to address the issues in the solid Waste Management area will be issued". Further, the 2009 inspection report indicates that no sampling results were submitted and that there are no records of water use or sampling.
H,13	The Licensee shall, within sixty (60) days of Licence issuance, submit to the Analyst for approval, a Quality Assurance/ Quality Control (QA/QC) Plan, which addresses both field and laboratory requirements. The Plan shall be submitted to the Board upon approval by the Analyst for inclusion with the O&M Manual, required under Part F, Item 1(g).	Due September 8, 2008. Not on file.
H,14	<p>The Licensee shall submit to the Board for review and approval, within six (6) months of the issuance of this licence, a report identifying any additional Final Discharge Point from the Waste Water Treatment Plant. The report shall include at a minimum:</p> <ul style="list-style-type: none"> <li>a. Plans, specifications, geographic coordinates and a general description of each Final Discharge Point and direction of flow; and</li> <li>b. A description of how each Final Discharge Point is designed and maintained, if required; and</li> <li>c. A description of the receiving environment.</li> </ul>	Due February 8, 2009. Not on file.

Prepared by:

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