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Submitted Via E-Mail
Our File: 3BM-QIK0712
Your File: _____
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November 30, 2007

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RE: July 12th, 2007 Municipal Water Licence Inspection

The Inspector would like to thank SAO Mike Richards for taking the time to meet during the inspection period and for acting as guide while conducting the inspection of the Potable Water intake reservoir, waste treatment system and bulk waste management areas.

Part A: Scope and Conditions

No issues were found with respect to the information contained within the scope section.

The license, as issued, remains a Type "B" license classed for Water use, Waste Disposal for Municipal undertakings.

It is noted that during the period of inspection the Municipality of Qikiqtarjuaq was operating under current Water License issued on May 9th, 2007. The current license is a renewal of license NWB3QIK0106 which expired on December 31st 2006.

Part B: General Conditions

A review of the Nunavut Water Board FTP site during the writing of this report located a copy of the 2006 annual report filed by the community. The report was found to be missing the following requirements as outlined in section 1 of this Part.

- Water Quality results for required Municipal sampling under the monitoring program.

The licensee is reminded that an annual report is required to be filed by March 31st 2008 for the year ending December 31st 2007. The annual report **must** include but not be limited to those items listed in Section 1 (i) through (viii) inclusive, of this part as well as any information required by the Inspector.

Failure to file a complete report as outlined in the license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.



The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

The Licensee is also reminded that signage continues to be a requirement under the current license and must be addressed by the period of the next inspection.

Part C: Conditions Applying to Water Use

The Licensee has been allocated the use of 37,500 cubic meters of water annually for all purposes under the current license.

Fresh water from Tulugak River is channelled through a pipeline to a holding reservoir. The water is chlorinated on its way into the water truck. The chlorine residual is measured twice daily and these records were available for inspection in the pumping station. All appeared to meet the requirements of the license during the inspection.

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 the Tulugak River.

Sampling results of the potable source returned a lower than required pH for water collected from the Tulugak River. The Canadian Council of Ministers of the Environment (CCME) set the national guidelines for Community Drinking Water. The pH guideline under the standard is between 6.5 – 8.5 pH units. The results of the sample collected returned a finding of 6.14 pH units.

Part D: Conditions Applying to Waste Disposal

Sewage treatment;

The Licensee is responsible for ensuring that effluent entering the environment meets the following standards at SNP Station QIK-6 which is located at the point of release of the treated sewage;

Parameter	Maximum Average Concentration
BOD ₅	120 mg/L
Total Suspended Solids ₄	180 mg/L
Faecal Coliforms 1 x 10 ⁴	CFU/100mL
Oil and 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.

The Licensee is reminded that the Licensee is required to notify the Board and the Inspector, at least sixty (60) days prior to the commissioning of the Wetland Treatment Area for sewage treatment. Upon commissioning the licensee is also required to provide to the Board and Inspector a Wetland Treatment Area assessment that includes, but is not limited to those items outlined in Section 7 (I through v).

Solid Waste Management Area;

During the period of inspection the Inspector noted and discussed with Mr. Richards the lack of cover and need to consolidate the materials within the municipal and fenced area of the solid waste area.

The Bulk metals waste area also had issues with large items either blown or carried off away from the main waste management area.



The Inspector did note that an area had been designated for Hazardous waste and was lined.

Part E: Conditions Applying to Modifications and Construction

During the period of inspection no work had been undertaken with respect to the expansion of the community reservoir nor the construction of the secondary cell onto the existing sewage lagoon. A review of the Nunavut Water Board FTP site could not locate any drawings or plans nor construction reports having been submitted by the licensee.

The licensee is reminded to take precautions as per section 5 of this part to prevent the release of sediment and minimize erosion during excavation for the expansion of the reservoir and as well to submit as per section 9 of this Part, within ninety (90) days of completion of the construction, outlining any alteration or deviation from the Final Design and Specifications, which will include, but not be limited to, as built plans/drawings that have been signed, stamped and sealed by an Engineer, of the improvements to the Water Reservoir, Sewage Disposal Facilities and Solid Waste Disposal Facilities as described in the Application for Water Licence renewal filed by the Licensee on April 20, 2006

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

The licensee is reminded failure to file reports and plans as contained within the terms and conditions of the current license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.

It is also noted that an application for amendment was submitted by the Licensee with respect to the existing Land Farm facilities administered by the Municipality. A review of the Nunavut Water Board FTP site was able to locate the amendment application and comments submitted by two interveners, however, was not able to locate an approval from the Nunavut Water Board at the time of the writing of this report.

Part F: Conditions Applying to Maintenance

As noted a review of the Nunavut Water Board FTP site was conducted during the writing of this report. The review was unable to locate the following documents;

- Revised Water Storage Operation and Maintenance Plan – Feb 2006
- Sewage Treatment Facility Operation and Maintenance Plan – Feb 2006
- Solid Waste Facility Operation and Maintenance Plan – Feb 2006
- An Inspection report from a Geotechnical Engineer on all engineered facilities related to the management of water and waste which was to have been carried in July. Additionally, a covering letter from the Licensee outlining an implementation plan addressing each of the Engineer's recommendations was also not located.
- The revised Environmental Emergency Contingency Plan for Water, Sewage and Solid Waste Operations in the Hamlet of Qikiqtarjuaq, Nunavut.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing. Failure to file the required reports as outlined in the license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.

A review of the internal file was able to locate a 2006 annual report from the Municipality of Qikiqtarjuaq, not found on the Nunavut Water Board FTP site which does indicate that No up-dates or revisions to Operations and Maintenance manuals was completed.



Part: G Conditions Applying to Abandonment and Restoration

Section 1 of this Part states;

1. The Licensee shall submit to the Board for approval an Abandonment and Restoration Plan at least six (6) months prior to abandoning any facilities and the construction of new facilities to replace existing ones. The Plan shall include, but not be limited to: (where applicable) (i through xii)

The inspector seeks clarification on the application of this part, with respect to the expansion of the freshwater lagoon and planned construction of an additional cell onto the existing sewage lagoon. Does this require an Abandonment and Restoration plan be submitted prior to the undertaking of these activities?

Part H: Conditions Applying to the Monitoring Program

A review of the Nunavut Water board FTP site was not able to locate any results from sampling required under the current license. The Inspector is unable to determine if the sampling requirements have been addressed by the licensee.

The Licensee is reminded that sampling is a requirement of the current license and must be undertaken to remain in compliance with the terms and conditions of the license.

Non-Compliance:

The Municipality is required to complete the following;

- Submit required revised plans and manuals
- Submit required sampling results
- Maintain the appropriate signage, and Surveillance Network Program (SNP)
- Develop a Quality Assurance/ Quality Control Plan (contact the Nunavut Water Board)

A. Keim
Inspector's Name

Inspector's Signature

Attached under separate cover;
Photos taken during Inspection of July 12th, 2007

Cc:

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