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September 27th, 2006

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License # NWB3PAN0207  
Faxed to: 473-8832

**RE: August 3, 2003 Municipal Water Licence NWB3PAN0207 - Report**

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by the SAO Greg MORASH immediately following the inspection of the Pangnirtung community Water use and Waste Disposal Facilities. Enclosed for your records is a copy of the Municipal Water Use Inspection Report performed on August 2, 2006. As per our discussions following the inspection the following observations were noted.

**Part B: General Conditions**

The Hamlet SAO has been asked to ensure the proper placement of signage and flagging at the SNP stations as outlined in the terms of the water license. These stations are to be maintained and if not already complete then erected at the Water Supply Intake (PAN-1) and the Sewage Treatment Facility Effluent (PAN-3). The dump seepage SNP station will be located once the drainage at the Solid Waste Disposal Facility has been modified to reduce the seepage through the dump.

As well following the inspection and during the discussions with the SAO Mr. Greg MORASH the terms of the reporting process were discussed. It is imperative that the Hamlet report a list of any unauthorized discharges from either the Sewage Treatment facility and or the solid waste management area. The failure of the Hamlet to do so brings them into violation of the terms and conditions of their water license.

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

The Water Intake Facility is well maintained, no garbage was visible around the facility. Signs are required at the Water Intake Facility to alert the public that no access nor trespass is allowed within the reservoir area. It should also be noted that during the inspection the Inspector and officer from Environment Canada noted a number of hamlet workers starting a pump and beginning to empty the reservoir. During this time a five gallon jerry can was placed on the ground beside the pump approximately 5 feet from the water's edge. This is of concern for obvious reasons. Additionally it should be noted that the hamlet has since the last inspection completed repairs to the fence surrounding the town's water. However there was a 50 meter stretch of fence that did not extend down to ground level but was suspended far enough above the ground as to allow access to animals and or blowing/ wind blown garbage.

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

During the 2004/05 fiscal year the new Sewage treatment facility was opened in the community. The WRO Inspected the sewage treatment facility with the Inspector from Environment Canada. No obvious deficiencies were immediately noticed however samples were collected and the results will be reviewed for compliance with the terms of the water license. It was also noted during this inspection and during follow up that the inspectors office

has not been notified if the clarification regarding the operations and processing that occurs within the plant was ever addressed and a report submitted to the Water Board or INAC offices as required during the inspection of 2004.

The Municipality has, since the opening of the new facility, ceased depositing sewage into the Old Sewage outfall area. As such the level of water in this area has drained off leaving sludge and other sediment exposed to the air and precipitation. It is obvious from a visual inspection of this area that little or no remediation effort has been undertaken since the closure of this area. This has led to a run-off of this precipitate material into the stream-bed and out into the fiord. This is of obvious concern and was not addressed to the satisfaction of the inspector during the inspection and subsequent interview with the SAO Mr. Greg MORASH.

Within the Solid Waste disposal facilities The Inspector noted the following areas of concern;

1. Sewage Sludge (bagged) from the treatment facility was piled along the North end of the Facility adjacent to an overflowing pit of fish processing wastes. The sludge bags, many of which were broken, appear to be intermingled with some of the fish wastes and a seepage from the entire area was noted flowing West along the North wall.
2. Commercial Fish wastes, stored in a Municipal dump are beyond the understanding of the inspectors however, as per the terms of the Water License these wastes are to be stored in a pit that has been excavated below the level of the permafrost thus to facilitate encapsulation of these wastes. This has not taken place as was evidenced by the inspectors. Any pit that was dug is now long since full and over flowing. The smell and obvious infestation with flies and maggots are all indications that these wastes are not being disposed of properly. The huge number and size of the Flies in the area also alarmed the inspectors who discussed with the SAO the obvious health concerns this presented to the community. The terms of the water license clearly outline the requirement for this material to be covered over prior to the spring thaw. This obviously did not happen and again brings the Hamlet into **violation of this license.**
3. The solid waste facility also had the North West Corner of the facility Wash out from beneath the fence. This allowed rain and precipitation to wash down stream into pools at the high tide mark immediately beneath the facility. Samples of this run off and dump leachate were taken and will be reviewed once the results are back. It should be noted that the SAO Mr. Greg MORASH committed during the interview immediately following the inspection to fix this deficiency in the facility and report that to the INAC Offices and the water board.
4. There was very little segregation of materials within the dump.

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

It is impossible for the Inspector to determine if any of the terms and conditions of this section have been complied with. No notification of any omission has been received by this office.

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

The Water Intake Facility was fairly well maintained.

The Licencee has been requested by the WRO to report any spill to both the INAC offices in Iqaluit, the Conservation Officer in the community and the Health Board if required.

The Inspector has no information concerning the Operations and maintenance manual that was to be submitted by December 2003. As it is still a condition of the license and not addressed in any correspondence as being completed, the inspector will look to the Water Board for confirmation.

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

A plan should have been submitted to the NWB, and authorization received prior to the decommissioning of the old

sewage outfall area. As this work has not been undertaken it is the understanding of this officer that this has not taken place as yet.

The Inspector can not locate any correspondence from the Water Board to indicate that this has occurred.

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

The WRO identified the lack of signage and warnings at all of the SNP stations within the Municipality. This needs to be addressed at the earliest opportunity.

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

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 have conformed to the Quality Control / Quality Assurance plan which was to be provided to the water board within 60 days of the issuance of the Community water license. No records indicating that these samples nor the above mentioned plan have been submitted, nor has a variation order from the water board been recorded at this office.

Additionally, it should be noted that while the quantities of water usage on both an annual and monthly basis were available for review neither the monthly nor annual quantities of sewage solids removed from the disposal and treatment facility were available. Nor can the office seem to determine if these records were submitted to the water board as per the terms of their license.