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NUNAVUT IMALIRIYIN KATIMAYINGI  
NUNAVUT WATER BOARD  
OFFICE DES EAUX DU NUNAVUT

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April 17, 2008

File No. NWB3PAN0207/Renewal

Bhabesh Roy, M.A.Sc., P.Eng.  
Municipal Planning Engineer  
Community & Government Services  
Baffin Region, Government of Nunavut  
P.O.Box 379, Pond Inlet, X0A 0S0

By email ([broy@gov.nu.ca](mailto:broy@gov.nu.ca))

**Re: Review of water licence renewal application for the Hamlet of Pangnirtung; Licence No. 3BM-PAN0207**

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Dear Mr. Roy:

The Nunavut Water Board (NWB) acknowledges receipt of the Hamlet of Pangnirtung's Application for Water Licence Renewal (Application) on November 20, 2007 for Licence No. 3BM-PAN0207, recently having expired on November 30, 2007. The Application was distributed for comment on January 8, 2008 and included the following documentation:

- Cover letter dated November 20, 2007;
- Water licence application form;
- Technical summaries in English and Inuktitut;
- Feasibility Study on Solid Waste Management in Pangnirtung, NU (Dillon Consulting Limited 2007);
- Pangnirtung Waste Water Treatment Plant: Comprehensive performance evaluation (Dillon Consulting Limited 2007); and
- Record of public meeting on waste management.

Comments were received from Environment Canada (EC) and the Government of Nunavut Department of Environment (GN-DoE) on February 8 and 14, 2008 respectively. The review period has identified a number of issues with the Application and the file in general that must be addressed prior to the NWB making a decision on the renewal of the Hamlet's water licence. These issues are outlined below.

#### **Waste water treatment**

The NWB has reviewed the *Pangnirtung Wastewater Treatment Plant: Comprehensive Performance Evaluation* (Dillon Consulting Limited 2007) and has taken into consideration the comments received during the review process. The NWB appreciates the Hamlet's effort in its undertaking. The report outlines numerous issues with the treatment facility and its operation and provides recommendations to remedy the situation. The NWB notes the commitment made by Mr. Roy, on behalf of the Hamlet, to undertake the low, medium and high cost treatment plant upgrade recommendations over the course of the next seven years. However, this commitment lacks a detailed timetable and action plan for implementing the report's

specific recommendations. This is of particular concern as the report states that the present treatment process is inadequate, and the effluent will periodically exceed the regulated parameters. The GN-DoE also highlighted this concern in its submission.

In considering the above, the NWB requests that the Applicant provide a detailed plan identifying the proposed upgrades required to meet the regulated parameters and provide a detailed timetable for their implementation.

### **Solid waste disposal facility**

The NWB has reviewed the *Feasibility Study on Solid Waste Management in Pangnirtung*, NU (Dillon Consulting Limited 2007) and has taken into consideration the comments received during the review process. EC's submission raised concerns with respect to the problems associated with the existing solid waste disposal facility, including issues identified in the 2007 Inspector's Report:

- Sewage Sludge (bagged) from the treatment facility was piled within 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 sludge from the area was noted flowing West along the North wall;
- Commercial fish processing waste in a Municipal dump; The terms of the Water Licence these wastes are to be stored in a pit that has been excavated below the level of the permafrost to facilitate encapsulation of these wastes. This has not taken place as was evidenced by the inspector;
- 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 proceed down stream into pools at the high tide mark immediately beneath the facility. Samples of this run off were collected and analysis show elevated levels of the following parameters; Selenium, Strontium Manganese and Iron;
- Segregation of materials within the dump was non-existent; and
- In follow up, the wash out in the North west corner of the solid waste management area had not been repaired as per the 2006 Inspector's Direction and contrary to the assurance of the then SAO, Mr. Greg Morash.

EC also highlighted the Applicant's technical summary, which stated that the existing solid waste disposal site was inappropriately sited due to ecological concerns, is poorly operated, poorly maintained and is nearing its capacity. The NWB understands that the report by Dillon Consulting Limited (2007) provides three options for remedying the situation, which include creating a new landfill further from the community, constructing an incinerator, or a combination of both, and that the Applicant favours a new facility. However, the GN-DoE, in its submission, informed the NWB that following communication with the Applicant in February of 2008, it learned that none of the options proposed by Dillon Consulting Limited would be implemented for five or six years due to funding constraints.

The NWB has considered the issues identified by the Inspector and the concerns of interested parties and requests that the Applicant provide a response and proposal to address the above issues related to the solid waste disposal facility.

### **Compliance issues**

The Hamlet was issued an Inspector's Direction on October 4, 2006, for deposit of waste in contravention of Water Licence NWB3PAN0207. The following specific violations were noted:

- An uncovered ditch, obviously overflowing with commercial fish waste at the Pangnirtung solid waste management facility;
- The Old Sewage Truck Discharge pit was uncovered and open to the elements allowing sludge from the pit to enter into the Pangnirtung Fiord. It should be noted that in June 2003 an order was given to place crushed material in this site to prevent this from occurring;
- Bags of sewage treatment plant sludge, both broken and whole, are piled within the waste management facility. Seepage from these bags is entering the overflowing pit containing commercial fish wastes. Seepages from both are visible within the facility and at the wash out in the North corner of the facility.

The Hamlet was ordered to immediately undertake to remedy the situation and was required to submit, within ninety (90) days, a plan for how the municipality will meet the outstanding terms and conditions of their water licence including signage, sludge waste management, sampling and monitoring requirements as set out in Part H of the water licence and the abandonment and restoration of the old truck sewage disposal area as per Part G of the licence.

Following up on the Inspector's Direction, the NWB issued a letter to the Hamlet on October 20, 2006, which stated:

Items brought forward to the NWB by Inspector's through 2002-2007 and that have not been addressed by the Hamlet will be considered by the NWB through the Hamlet's water licence renewal application anticipated in 2007.

and

The NWB looks forward to reviewing the Hamlet's report, to be submitted to INAC ninety (90) days following the issuance date of the Inspector's Direction, addressing how the municipality will meet the outstanding terms and conditions of their current water licence.

The NWB's records, and the 2007 Inspector's Report, indicate that this plan has not been provided by the Hamlet. Recently, the NWB has approved and issued renewal licences for municipalities that have, during the term of a licence, been in various states of non-compliance. These have been issued for short terms with a requirement to provide a "Plan for Compliance" to the Board, indicating a means of action and commitment to achieving compliance. With respect to the renewal application currently before the Board, the NWB sees the Inspectors Direction, issued October 4, 2006 as a requirement similar to the requirement for a compliance Plan. The actions to date continue to reinforce the non-compliance direction of the Licensee. As such, the NWB requests that the Hamlet address the issues from the 2006 Inspector's Direction and provide to the NWB the required plan for compliance, for review and approval prior to proceeding with the licence renewal application process.

Finally, as mentioned in the NWB's letter to the Hamlet dated October 20, 2006 The NWB reminds the Applicant that, as *per* Section 57(a) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*:

57. The Board may not issue a licence unless the applicant satisfies the Board that:

(a) any waste produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of the water quality standards and effluent standards that are prescribed by the regulations or, in the absence of such regulations, that the Board considers acceptable.

The NWB requests that the Applicant provide a response to the above issues by **May 15, 2008**. If you require further clarification or wish to discuss the application and information requested in this letter, please do not hesitate to contact the undersigned at [dts@nunavutwaterboard.org](mailto:dts@nunavutwaterboard.org) or 780-443-4406.

Yours truly,

*(Original signed by)*

David Hohnstein  
A/Director of Technical Services

c.c. Hamlet of Pangnirtung, SAO  
Patricio Fuentes, GN-CGS Regional Manager  
Qikiqtani Distribution