



July 7, 2014

Your file - Votre référence
3BM-CLY0909

Our file - Notre référence
IQALUIT-#816806

Robin Ikkutisluk
Licence Administrator Assistant
Nunavut Water Board
GJOA HAVEN, NU X0E 1J0

Re: Aboriginal Affairs and Northern Development Canada Review of the Hamlet of Clyde River's Application to Renew Water Licence #3BM-CLY0909

Dear Ms. Ikkutisluk:

Thank you for your email of June 6, 2014, concerning the above mentioned application. A memorandum is provided for the Board's consideration. Comments and recommendations have been provided pursuant to Aboriginal Affairs and Northern Development Canada's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4555 or email at david.abernethy@aandc-aadnc.gc.ca for further information.

Sincerely,

David Abernethy
Regional Coordinator
Water Resources Division
Resource Management Directorate
Aboriginal Affairs and Northern Development Canada
IQALUIT, NU X0A 0H0

Encl.

c.c.: Murray Ball, Manager of Water Resources, AANDC Nunavut
Erik Allain, Manager of Field Operations, AANDC Nunavut
Phyllis Beaulieu, NWB Manager of Licensing

Memorandum

To: Robin Ikkutisluk, Nunavut Water Board

From: David Abernethy, Aboriginal Affairs and Northern Development Canada

CC: Murray Ball (AANDC), Erik Allain (AANDC), and Phyllis Beaulieu (NWB Manager of Licensing)

Date: July 7, 2014

Re: Water Licence Renewal Application, #3BM-CLY0909

Licensee: Hamlet of Clyde River
Project: Municipal water licence
Region: Qikiqtani

Comments:

A. Background

On June 6, 2014, the Nunavut Water Board (NWB) provided notification of the Hamlet of Clyde River's (the "Licensee") application to renew Water Licence #3BM-CLY0909 to allow for the use of water and deposit of waste for municipal undertakings. The licence authorizes the following main activities:

- The consumption of potable water from Water Source Lake (not to exceed 38,000 cubic metres annually);
- Rehabilitation of the existing Sewage Disposal Facility, comprised of a sewage lagoon constructed in 1976;
- Construction of a new sewage treatment cell adjacent to the existing lagoon;
- Controlled release of treated sewage effluent to a Vegetated Filterstrip Wetland Area that is approximately 720 metres long and 325 metres wide. The effluent subsequently enters the marine environment at Patricia Bay;
- Quarry development to support the construction of the new sewage treatment cell;
- The operation of a Solid Waste Management Facility (non-engineered landfill); and
- Associated planning and monitoring requirements.

Interested parties were asked to review this application and provide comments by July 7, 2014.

B. Results of review

On behalf of Aboriginal Affairs and Northern Development Canada (AANDC), the following comments and recommendations are provided:

1.	<p>Requested Ten Year Licence Renewal Term</p> <p>Comment: The Licensee has requested a ten year licence renewal term. This requested term is unreasonable due to the Licensee's record of non-compliance with licence terms and conditions (e.g., monitoring requirements).</p> <p>Recommendation: The licence should be renewed for three to five years (maximum). Lengthier renewal terms should only be issued to Licensees that consistently satisfy their licence terms and conditions.</p>
2.	<p>Annual Reporting Requirements</p> <p>Comment: Several annual reports are not included on the NWB Public Registry (i.e., 1999-2007, and 2010) and reports that have been provided are incomplete (i.e., lack required monitoring information).</p> <p>The Licensee must ensure that the monitoring requirements specified in Part B, Item 2 of the licence are fully presented in its annual reports. The following observations describe how future annual reports can be improved:</p> <ul style="list-style-type: none">• The NWB's Annual Reporting template should not be relied on as the source for documenting monitoring requirements because it is not specific to individual licences. This reporting template can be completed but should be supplemented by additional documentation to ensure that all monitoring requirements are satisfied. The Licensee is encouraged to develop its own annual reporting template.• The submitted annual reports do not provide tabular summaries of data that should be collected under the licensed monitoring program pursuant to Part B, Item 2(a) of the licence. If monitoring data other than the volume of potable water consumption and estimated wastewater generation is provided, the data are provided in the form of water quality laboratory analysis reports that do not reference the licensed monitoring stations reference names. Tabular summaries should be presented for all monitoring program stations in addition to laboratory reports. These summary tables should reference licensed monitoring program stations (e.g., CLY-X), reference applicable effluent quality limits, and identify any exceedences.• According to the technical summary, the new lagoon was constructed and commissioned in 2011. The monitoring data what is required pursuant to Part B, Item 2(e) of the licence concerning the geotechnical and geothermal performance of the Enhanced Sewage Disposal Facility have not been provided. This monitoring is specific to the collection of thermistor, standpipe, and settlement data (e.g., Part H, Item 10 of the Licence requires that the temperature at Monitoring Stations CLY-9 and CLY-10 be monitored a minimum of once every two months for the first two years following construction of the Enhanced Sewage Disposal Facility, and twice annually thereafter, in early spring and mid to late fall). As stated in section 3.2 of the July 2012 <i>Wastewater</i>

	<p><i>Operations and Maintenance Manual</i>, this monitoring is “vital during the early operational years to ensure proper freeze-back of permafrost into the base soils and berm core.”</p> <ul style="list-style-type: none"> Written responses to Inspection reports should be attached to annual report submissions. <p>Recommendation:</p> <p>The Licensee must ensure that complete annual reports are provided each year. Monitoring program requirements specified in the licence must be understood and implemented into the job duties of applicable Hamlet staff. The Licensee should not hesitate to contact AANDC, the NWB, and the Government of Nunavut’s Department of Community and Government Services to discuss its licensed monitoring program.</p>
4.	<p>Scope of Spill Contingency Plan</p> <p>Comment:</p> <p>Pursuant to Part F, Item 1(e) of the licence, the Licensee is required to develop a Spill Contingency Plan. The Licensee has included a spill response plans in its July 2012 <i>Wastewater Treatment Facility Operations and Maintenance Manual</i> and its May 2014 <i>Solid Waste Operation and Maintenance Plan</i>. The Licensee also prepared a draft Spill Response Plan for aggregate deposits (borrow pits) as part of its 2008 renewal application.</p> <p>Recommendation:</p> <p>The Licensee should develop a standalone Spill Contingency Plan that details how hazardous materials originating from hamlet infrastructure and assets (e.g., wastewater treatment facility, oil tanks, vehicles, etc.) will be managed in the event of a spill or accidental release. A standalone Plan would facilitate the effective implementation of spill response measures. This plan would be kept up to date for the use of Hamlet staff and be subject to regulatory review.</p>
5.	<p>Hazardous Waste Management</p> <p>Comment:</p> <p>The 2014 <i>Solid Waste Operation and Maintenance Plan</i> includes details on the management of hazardous wastes (Section 6.2). This plan states that hazardous wastes are not being properly managed but provides recommendations (e.g., have a designated area with appropriate storage options within a lockable fenced area; use sea cans for the storage of hazardous wastes; register the site as a hazardous waste storage facility with the Government of Nunavut, etc.).</p> <p>The Licensee’s May 2014 Plan for Compliance states that a “Document for Segregation of Hazardous waste procedure” will be made available by the end of June 2014 and that segregation of hazardous wastes will commence in the summer of 2014.</p> <p>Recommendation:</p> <p>There should be no delay in establishing a proper hazardous waste management facility. The Licensee should provide the document referenced in the May 2014 Plan for Compliance as soon as it is available for review (“Document for Segregation of Hazardous waste procedure”). Additionally, the Licensee should prepare a standalone Hazardous Waste Management Plan pursuant to Part F item 1(b) of the licence. This Plan must reflect the operation of a fully functional hazardous waste management facility and be kept up to date. The mismanagement of</p>

	hazardous wastes can result in severe health and safety hazards to people (potentially fatal, material safety data sheet instructions must be followed) and can contaminate the surrounding environment (land and water) to the detriment of wildlife and people.
6.	<p>Open burning of waste materials</p> <p>Comment: Section 5.1.2 of the May 2014 <i>Solid Waste Operation and Maintenance Plan</i> states that burnable waste should be burned at least once per week (in designated burn areas) to keep the volume of waste manageable. This plan identifies burnable and non-burnable wastes. Burnable wastes include:</p> <ul style="list-style-type: none"> • Domestic waste (e.g., food waste, paper products, paper board/cardboard packaging, etc.); and • Non-treated wood <p>Table 2 of the Government of Nunavut's 2012 <i>Guideline for the Burning and Incineration of Solid Waste</i> states that the following items are suitable for open burning:</p> <ul style="list-style-type: none"> • Paper products; • Paperboard packing including boxboard and cardboard; • Untreated wood including lumber and plywood; and • Natural fiber textiles. <p>This table states that food wastes should only be burned in a dual chambered incinerator.</p> <p>AANDC is concerned that waste materials not suitable for burning such as plastics are being burned on a regular basis.</p> <p>Recommendation: The Licensee should limit the burning of waste materials and work toward ending the practice of burning wastes during the term of a renewed licence because the burning of waste materials creates airborne pollutants that are harmful to the environment (e.g., dioxins and furans). For the time being, only materials suitable for open burning referenced in the Government of Nunavut 2012 <i>Guidelines for the Burning and Incineration of Solid Waste</i> should be considered acceptable for burning.</p>
7.	<p>Design and Construction of a New Solid Waste Management Facility</p> <p>Comment: According to the Licensee's May 2014 Plan for Compliance (Section G-1) the existing (non-engineered) solid waste management facility will eventually be decommissioned and replaced with a new facility.</p> <p>Recommendation: The design and construction of a new landfill and the decommissioning of the existing landfill should be authorized under a water licence amendment. The new landfill should be an engineered facility with water management provisions (i.e., diversion of clean water away from the facility and the management of runoff and seepage reporting from the facility). There should be no burning of any solid waste materials at the new facility.</p>

Prepared by David Abernethy