



Our reference
File #9545-2-3.3BM.CLYA
CIDMS #388385

February 4, 2010

Richard Dwyer
Licensing Administrator
Nunavut Water Board
Gjoa Haven, Nunavut
X0E 1J0

Your reference
3BM-CLY0909/TR/B12

Sent Via Email

Dear Richard,

**Subject Water License #3BM-CLY0909/TR/B12, Government of Nunavut
– Department of Community and Government Services on
behalf of the Hamlet of Clyde River, Plan for Compliance**

Please be advised that on behalf of Indian and Northern Affairs Canada, I have completed a review of the above referenced Government of Nunavut Department of Community and Government Services submission to the Nunavut Water Board.

A Technical Review Memorandum (attached) is provided to the Board for consideration.

Should you have any questions regarding this submission, feel free to contact me at 867 975-4555 or David.Abernethy@inac-ainc.gc.ca.

Regards,

David W. Abernethy
Water Resources Regional Coordinator
Operations Directorate, Nunavut Regional Office
Indian and Northern Affairs Canada
Iqaluit, Nunavut
X0A 0H0

Attached.

Cc: Lou-Ann Cornacchio, INAC Water Resources Manager
Peter Kusugak, INAC Field Operation Manager

TECHNICAL REVIEW MEMORANDUM

Date: Feb. 4/10

To: Richard Dwyer, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada

Re: **Water License #3BM-CLY0909/TR/B12, Government of Nunavut – Department of Community and Government Services on behalf of the Hamlet of Clyde River, Plan for Compliance**

A. PROJECT DESCRIPTION

On Jan. 21/10 the Nunavut Water Board (NWB or Board) distributed the Government of Nunavut's Department of Community and Government Services (GN-CGS) Oct. 27/09 and Dec. 9/09 submissions that concern the development of a Plan for Compliance required by Part B Item #12 of the Hamlet of Clyde River's Type B municipal water license, #3BM-CLY0909. As this plan requires Board approval, the NWB has made this information available to interested parties and requested comments by Feb. 4/10.

Part B, Item #12 of the License states,

The Licensee shall submit to the Board for approval, within thirty (30) days of issuance of this License, a Plan for Compliance that clearly demonstrates the measures the Licensee will undertake, including an implementation schedule, to achieve full compliance with the conditions of this License, including the issues raised during the public review of the application and those of the Inspector's Reports.

On Oct. 27/09 the NWB received an application for renewal of License #3BM-CLY0909 from the GN-CGS on behalf of the Hamlet of Clyde River. This Renewal Application included a Plan for Compliance in accordance with Part B, Item #12 of the License. This plan was supposed to be submitted to the Board for approval by Apr. 18/09. The NWB noted a number of deficiencies in the Plan for Compliance during their internal preliminary technical review of the submitted Renewal Application. Due to the importance of this plan the Board determined that the submitted Renewal Application cannot be considered complete until the Plan for Compliance is approved. As a result, on Nov. 27/09 the NWB provided the results of their internal preliminary technical review to the GN-CGS and the Hamlet advising the following,

“The Board will not proceed with processing the Renewal Application until a satisfactory response to the above issues (deficiencies in the Plan for Compliance) is provided by the Licensee.”¹

It is noted that the Nov. 27/09 correspondence was not available for review on the NWB’s online public registry. On Dec. 7/09 the GN-CGS submitted a response letter that addresses the various comments raised by the NWB.

B. RESULTS OF REVIEW

Indian and Northern Affairs Canada (INAC) provides the following comments / recommendations to the Board for consideration,

1. General

- i. It is my opinion that the Oct. 27/09 Plan for Compliance, associated appendices, and the Dec. 7/09 response letter submitted by the GN-CGS do not fully address the Part B, Item #12 license requirements. In addition Part B, Item #12 of the License, requires the compliance plan to clearly demonstrate the measures that will be taken, including an implementation schedule, to achieve full compliance with the conditions of the License, including the issues raised during the public review of the Aug. 19/08 application and those of the Inspector’s Reports. This remains outstanding.
- ii. The Plan for Compliance should be revised to include a concordance table that references where applicable license requirements and additional requirements imposed by the NWB are addressed.

2. Inspection Reports

- i. Detailed responses to Inspection Reports filed by INAC Water Resources Officers should be included in a revised Plan for Compliance. Concerns with respect to compliance with license conditions identified in the Aug. 19/09, Aug. 18/08, and Jul. 13/07 (filed Dec. 4/07) Inspection Reports should be addressed.

¹ Letter from David Hohnstein, NWB, to Bhabesh Roy, GN-CGS, and Bill Buckle, Hamlet of Clyde River Interim SAO. Subject: Renewal Application for Water License #3BM-CLY0909. November 27,2009.

3. Operation and Maintenance Manual (O&M Manual)

- i. An O&M Manual developed in accordance with Part F, Item #1 must be submitted to the Board for approval. Information requirements are specified in the License (i.e., Sewage and Solid Waste Operation and Maintenance Plan, Hazardous Waste Management Plan, Sludge Management Procedures, Spill Contingency Plan including updated Spill Response Plan for Aggregate Deposits, and Monitoring Program Quality Assurance / Quality Control Plan). The various appendices attached to the Oct. 27/09 Plan for Compliance do not satisfy this license requirement; and,
- ii. The O&M Manual must be specific to current facilities captured by the Hamlet's license. This Manual should be revised to take into consideration any changes in water and waste management practices when necessary. This would apply to the commissioning of the Enhanced Sewage Disposal Facility that is planned to take place later this year. As stated in Part F, Item #2 of the License,

The Licensee shall submit to the Board for approval, a minimum of ninety (90) days prior to the commissioning of the Enhanced Sewage Disposal Facility, a revision to the Operations and Maintenance (O&M) Manual referred to in Part F, Item #1. The Manual shall take into consideration the new facility and comments received during the application review.

4. Sludge Management

- i. The GN-CGS Dec. 7/09 Response Letter to the NWB indicates that they have no intention of removing sludge from the bottom of the Hamlet's sewage lagoons and that there will be no sampling and analysis of this material. Part H, Item #s 6 and 8 of the License impose requirements that are specific to the management of sludge that accumulates within the Hamlet's Sewage Disposal Facility. They concern the quantitative and qualitative analysis of removed sludge and methods for its treatment, storage, and disposal. These license requirements should be addressed in a revised Plan for Compliance and in the O&M Manual in the form of a plan that is specific to Sludge Management Procedures as specified in Part F, Item #1d of the License.

The Trow Associates Inc. Sept. 2009 draft "Operations and Maintenance Manual for the Wastewater Treatment Facility Wastewater Treatment Facility, Clyde River" that was submitted as an appendix to the Oct. 27/09 Plan for Compliance briefly addresses sludge management procedures. This document states, "effluent quality will guide when a sludge management program is implemented. Monitoring of the effluent from the lagoon will indicate when the performance of the lagoon starts to degrade. Degradation of the performance of a lagoon is normally caused

by sludge accumulation and will be the indicator to desludge the lagoon.” The GN-CGS should include what specific effluent quality characteristics / frequency of detection and trigger values will be used to determine when sludge removal is necessary.

5. Remediation of Hydrocarbon Contaminated Soils

- i. The Plan for Compliance should include information concerning the status of the soil remediation site / landfarm that was constructed to the northwest of the Hamlet’s landfill and approximately 15 m east of the Sewage Disposal Facility in Sept. 2000. The Dillon Consulting Ltd. (Dillon) Jul. 8/02 “Clyde River Solid Waste Facility Siting Study – Final Report” that was submitted as an appendix to the Oct. 27/09 Plan for Compliance and the Feb. 5/03 NWB License #NWB5CLY0308 reference this facility. Apparently, it has an area of 40 m by 40 m, is fenced, and was constructed for the treatment of 350 m³ of contaminated soil (diesel fuel) removed from the Nunavut Power Corporation (NPC) property in Aug. 1999 to facilitate the construction of a new power house. The Jul. 8/02 Dillon report indicates that NPC anticipated that this soil would be remediated by 2003. The Issues section of License #NWB3CLY0308 states,

“In addition to the standard requirements of an Operation and Maintenance Plan, the plan submitted by the Licensee shall address concerns related to the potential runoff from the hydrocarbon contaminated soil from the local Nunavut Power Corporation site at the landfill.”

Minimal information is available for review with regard to this facility was found on the NWB’s online public registry (the only documents that reference its existence are referenced above). The NWB should confirm that an Operations and Maintenance Plan, along with any soil quality and effluent quality monitoring report submissions, as-built construction drawings, and an Abandonment and Reclamation Plan specific to this facility were provided to the Board by the Licensee; and,

- ii. The Hazardous Waste Management Plan to be included in an O&M Manual required pursuant to Part F, Item #1 of the License should address any operational contaminated soil remediation / landfarm facilities.

Prepared by David Abernethy

Cc: Lou-Ann Cornacchio, INAC Water Resources Manager
Peter Kusugak, INAC Field Operation Manager