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Department of Environment

Ministère de l'Environnement

May 11, 2004

NWB File:
NWB3IQA

Mrs. Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0E 1J0

via Email to:
licensing@nwb.nunavut.ca

Re: NWB3IQA – City of Iqaluit, Water License Renewal – Technical Hearing.

Dear Mrs. Beaulieu:

The Department of Environment (DOE), Government of Nunavut, thanks the Nunavut Water Board for the opportunity of reviewing the information on the City of Iqaluit's Water License Renewal, as posted on the NWB's ftp site.

General comments on the information available to date are attached and have been arranged according to the main components of the License. Please note that these comments are *'preliminary comments or issues to be discussed'* as instructed on the NWB's letter of April 25, 2005, for the technical meeting and pre-hearing of May 12, 2005.

We thank the NWB for giving us the opportunity to review the information pertaining to this License, and commend the City of Iqaluit's effort in submitting supplementary information for this License renewal.

Sincerely,

Original signed by

Gladis Lemus, Ph.D.
Manager Pollution Control
Department of Environment
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cc. *via email*

Brad Sokach, Director of Engineering, City of Iqaluit
Derrick Moggy, Habitat Management Biologist, DFO
Colette Spagnuolo, Environmental Assessment/Contaminated Sites Specialist, EC
Stephanie Hawkins, Qikiqtani Regional Coordinator, Water Resources, INAC

DRINKING WATER

1. Have the modifications to the Drinking Water Treatment Plant been completed, as scheduled to be done by February 2004 (as per Supplementary Questionnaire, Section III. Water Supply, Modifications, page 6)?
2. What is the status on the implementation of the recommendations of the Lake Geraldine Dam Safety Inspection Report (Concentric Associates International, Feb. 16, 2005)? In particular, what is the status of dam repairs, maintenance & upgrades?
3. What is the status on the implementation of the recommendations of the Lake Geraldine Dam Safety Inspection Report (Concentric Associates International, Feb. 16, 2005), in regard to the preparation of Operation & Safety Manuals, Emergency Preparedness Plan, Logbook & Permanent File, whose need has been pointed out since the Dam Safety Review of 2001.
4. Could you please provide the source, author & date of the file entitled 'Project Summary – Dam Repairs since last DSR. Doc', dated December 6, 2004? And clarification if the repair work performed on Lake Geraldine Dam complies with the Dam Safety Guidelines of the Canadian Dam Association?

SEWAGE DISPOSAL & SEWAGE SLUDGE

1. Has the City made a decision in regard to the technology to be used (activated sludge, Snowfluent, other)? What is the expected date to make that decision?
2. Could the City give us an estimate of the time frame needed for choosing the wastewater treatment technology, and the time needed for awarding the contract for construction, including the necessary By-Law readings & other regulatory processes involved? That is how the 'Iqaluit WWTP Revised Schedule.pdf' (December 6, 2004) will look like?
3. Does the City expect to proceed with construction of the chosen wastewater treatment plant/technology during the 2005 season?
4. If the answer to Question #3 is 'Yes', what are the City plans for Abandonment & Restoration of the Lagoon?
5. If the answer to Question #3 is 'No', does the City plan to continue using the existing sewage lagoon? If so, for how long?
6. If continuous use of the sewage lagoon is expected, what provisions are being taken by the City to ensure its safe & efficient operation? Particularly, what is planned for the safety & serviceability of the berms?
7. Could the City provide an update on the status of 'seepage' from the lagoon? And on the dykes structural integrity?

8. What is the status on the implementation of the recommendations of the City of Iqaluit Sewage Lagoon Dam Safety Inspection Report (Concentric Associates International, Feb. 16, 2005)? In particular, what is the status of dam repairs, maintenance & upgrades?
9. What is the status on the implementation of the recommendations of the City of Iqaluit Sewage Lagoon Dam Safety Inspection Report (Concentric Associates International, Feb. 16, 2005), in regard to the preparation of Operation & Safety Manuals, Emergency Preparedness Plan, Logbook & Permanent File, whose need has been pointed out since the Dam Safety Review of 2001.
10. Is another Dam Safety Review being scheduled before October 2005, as recommended by the City of Iqaluit Sewage Lagoon Dam Safety Inspection Report (Concentric Associates International, Feb. 16, 2005)?
11. When will the City develop a Spill Preparedness Plan for the lagoon, as recommended by Ferguson Simek Clark in February 1998 ('Iqaluit Sewage Lagoon Investigation. Final Report'), and as required by the Regulators? DOE found a reference to a document entitled 'Municipality of Iqaluit Spill Contingency Plan, Appendix B – Sewage Lagoon Preparedness Plan', prepared by Dillon in June 1998 (as cited on the Final Report. City of Iqaluit. Dam Safety Review for Sewage Lagoon, by Trow Consulting Engineers Ltd., October 4, 2002). Unfortunately DOE has been unable to locate this Plan on the documents submitted to NWB.
12. If a conventional secondary activated sludge treatment plant is to be used (as per Supplementary Questionnaire, Section IV. Sewage Disposal, Modifications, page 8), what level of treatment would be included in the 'First Phase' section, if a phase out approach is taken (as per Nunatsiak New, January 21, 2005)?
13. If a conventional secondary activated sludge treatment plant is to be used, would it be built for a population of 8000 or 12000? That is Phase 1 or Phase 2 (according to the Final Conceptual Design Report Iqaluit WWTP, Conversion & Expansion, July 2004, page 1, EarthTech)?
14. Will the 'First Phase' be built according to Option 1 or Option 2 (as per Final Conceptual Design Report Iqaluit WWTP, Conversion & Expansion, July 2004, Page 12, EarthTech), meaning with or without a 'Salnes Filter' as substitute for a Primary Clarifier?
15. Will the 'First Phase' fulfill the effluent requirements by NWB Guidelines and Environment Canada requirements, in terms of BOD, TSS & Ammonia?
16. In the RFP for the Provision of Sewage Sludge Management Plan, City of Iqaluit, page 9, Section 6.1: Background, states that the 'non-operational WWTP' will be converted to a 'conventional secondary treatment plant (activated sludge)'. If the secondary treatment plant is not the technology

chosen by the City, would there be another RFP to deal with the sludge or any other by-products of the technology chosen by the City?

SOLID & HAZARDOUS WASTE DISPOSAL

1. Could the City provide an update on the status of recycling as a waste reduction measure? Door-to-door collection stopped in December 2004, and the drop-off system originally scheduled for March 1, 05 (Nunatsiaq, January 7, 2005), has not been implemented yet. (Supplementary Questionnaire, Section V. Waste Disposal, Waste Reduction, page 9)
2. What are the current and planned activities regarding household hazardous waste collection & disposal? There was one event in 2004 (Household Hazardous Waste Days, October 19-22, 04, Nunatsiaq News, October 15, 2004). (Supplementary Questionnaire, Section V. Waste Disposal, Commercial, Industrial and/or Hazardous Waste Disposal Area, page 11)
3. Could the City elaborate on the planned expansion of the West 40 Solid Waste Landfill? Note that there is 'no' modification planned for the solid waste disposal area as per the Supplementary Questionnaire, Section V. Waste Disposal, Modifications, page 11, and also Page 23, item 7); however on Nunatsiaq News (February 25, 2005), there is an article entitled 'City okays dump expansion'.
4. Does the City have a draft of the North 40 Landfill Operation & Maintenance Manual? To date only the 'Table of Contents O&M Manual Landfill – IMLE.pdf' has been submitted to the NWB.

NORTH 40 & OTHER DUMP SITES

1. Will the Abandonment and Reclamation of the North 40 be included in this Application (Class A), or would there be a different submission for the North 40, as a Class B License?
2. Is the City considering including in the current Water License Application, all the Solid Waste Disposal sites in the City, as done in previous Water Licenses (August 1995 - License N5L4-0087), and as included in the Supplementary Questionnaire, Section V. Waste Disposal, Abandonment & Restoration, page 11); That is, would the current Water License include the Solid Wastes Disposal sites identified (by UMA Engineering Ltd.) as:
 - a. Site 1-3: West 40, inactive dumps
 - b. Site 4: West 40, current landfill
 - c. Site 5: Apex dump
 - d. Site 6: North 40

If these sites are to be included, will the City prepare Abandonment & Restoration plans for them?

SPILL CONTINGENCY PLAN

Department of Environment would like to note that the spill contingency plan reviewed refers to the (2) Sewage Lift Stations alone. Spill Contingency Plans are needed for the wastewater lagoon, treatment plant, and access valves, among others.

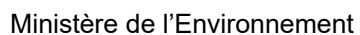
1. DOE found only one Sewage Lift Station Spill Contingency Plan dated May 29, 2003, even though it has also been posted at the NWB's ftp site with a date of November 13, 2004.
2. Page 2: Contact numbers for response personnel: Update to reflect current personnel.
3. Page 9, Section 7.1 Spill Equipment Inventory: An inventory and the location of response and clean up equipment available to implement the plan are needed. This includes City's equipment as well as any to be used by another person responding to the spill on your behalf (contractor). **In the SCP (page 9) it is mentioned that there is no spill equipment available (i.e. Industrial spill kits, PPE etc.), but will be purchased in the near future.
4. Page 9, List of Equipment Available for Spill Containment: Might need update according to City's new equipment acquisitions.
5. Appendix C: Spill Report Form, please update with Nunavut Spill Form (available from Dept. of Environment). Note that Spill Line number remains the same.
6. Appendix F: Organizational Chart for the City of Iqaluit: Needs update to reflect current City's staff.

INSPECTION & MONITORING

1. Page 12 of the Supplementary Questionnaire (Monitoring Program), states that a 'water sampling program started in September 2003'. That is about 1.5 years of monitoring data to date. When will the City made available the results from this monitoring program?
2. Has the City implemented the change to monitor water quality as per the Surveillance Network Program? (Page 13, literal e, of the Supplementary Questionnaire, Monitoring Program)

TECHNICAL INFORMATION

1. On Page 16 of the Supplementary Questionnaire (Technical Information), states that Iqaluit's Population according to the most recent census (2003) is 5959, however information from Statistics Canada (The Population of Nunavut and Nunavut's Census Subdivisions, 1981 to 2001), gives a figure of 5236 for 2001. Could the City estimate which is the current population of Iqaluit, and what is the expected growth rate over the next 5 years? (The figure quoted as 'estimated population projection of 6289, seems to be a more accurate number for current Iqaluit population).



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