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14 October 2005

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*Via Email*

**RE:    NWB3PON0409 – Submission of Operations and Maintenance Manual**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The Hamlet of Pond Inlet has submitted an operations and maintenance manual for its municipal sewage treatment facility as a requirement of Part F, Item 1 of its NWB3PON0409 water licence. The sewage treatment facility under review was commissioned in 1996 and is located 1.6 km southeast of Pond Inlet by road in an area that is also used for the disposal of municipal solid and bulky wastes. The sewage treatment facility consists of an engineered lagoon which is decanted once a year. Vacuum trucks collect and dispose of municipal sewage waste on a daily basis. The Hamlet of Pond Inlet has coordinates of 72° 42'N, 77° 59'W. At the time of the 2001 population census, 1,220 people lived within this community. The number of residents is anticipated to rise, having experienced a population growth of 5.7 percent from the previous population census (1996 = 1,154 people).

Following the lagoon's construction, problems with seepage and longitudinal cracking were observed. These complications were attributed to the soil type on which this structure was built. In response to such operational issues, extensive rehabilitation of the site took place in the summer of 2003 (i.e., drainage of lagoon, placement of a granular clay liner, re-compaction of the northern dyke, raising of all perimeter dykes, installation of a French drainage system and trenches, and improvement of the vacuum truck turn-around area).



The sewage treatment facility's operations and maintenance manual was prepared by Dillon Consulting Ltd. and submitted in March of 2005. This document provides background information concerning the sewage treatment facility, a summary of the sewage system design, and emergency response procedures. Environment Canada requests that the following issues be addressed in the sewage treatment facility's operations and maintenance manual.

**Section 1.4 Introduction - Contact List (p. 1)**

- The telephone numbers of the Senior Administrative Officer, Public Works Supervisor, and Hamlet of Pond Inlet Maintenance Shop have been provided. Environment Canada requests the provision of specific job titles for the list of contacts to ensure consistency in the sewage facility's management.

**Section 2.1.1 Background – General – Sewage Treatment Facility (p. 2)**

- Environment Canada recommends that the lagoon's total carrying capacity be made known.
- It is stated that the sewage treatment facility was rehabilitated in the summer of 2003/2004. The timing of the renovations is not communicated in a clear manner. This section of the manual should be revised, informing its readers that the sewage lagoon was repaired in either the summers of 2003 and 2004, the summer of 2003, or the summer of 2004.

**Section 3.4.1 Sewage System – Operational Procedures – Basic Operations (p. 7) and Section 3.6 Operational and Maintenance Summary (p. 12)**

- According to Part D: Conditions Applying to Waste Disposal, Item 4 of the NWPON30409 licence, the Hamlet of Pond Inlet must advise an inspector at least ten days prior to any decanting of the sewage lagoon. Environment Canada recommends that this information be presented in sections 3.4.1 and 3.6 of the operations and maintenance manual.

**Section 3.4.2 Sewage System – Operational Procedures – General Sampling Guidelines (p. 8)**

- Environment Canada requests that a schedule of wastewater effluent sample collection dates be provided in the operations and maintenance manual. The Hamlet of Pond Inlet's municipal water licence (Part H: Conditions Applying to the Monitoring Program, Item 2) specifies the timeframe in which such samples must be taken: "The Licensee shall sample monthly at Monitoring Program Stations PON-2, PON-4, and PON-5 during the months of May to August, inclusive." Furthermore, Environment Canada recommends that a summary of the monthly monitoring program and its corresponding log sheet be included in the operations and maintenance manual.
- The Hamlet of Pond Inlet is recommended to state how it will maintain a cool storage environment (approx. 4° C) for water, soil, and sediment samples and a frozen storage environment for specific samples prior to their transportation to an analysis lab (e.g., dedicated refrigerator and freezer space).



- According to the operations and maintenance manual, the “Environmental Lab” conducts all waste water effluent analysis (sample testing). Environment Canada requests that the company/organization’s contact information be provided in the manual.

#### Section 3.5.3 Sewage System - Maintenance Procedures – Fence Signs (p. 12)

- It is unknown whether a fence surrounds the sewage treatment facility. Environment Canada requests that the operations and maintenance manual specify whether or not a fence is in place and if so, how it is maintained (i.e, routine inspections and repairs).

#### Section 4.2 Emergency Response – Spills

- It is advised that a spill contingency plan for sewage spills on tundra, snow, ice, and water be included in the operations and maintenance manual. The provision of information regarding spill response kit content, the number of spill response kits, and its/their storage location(s) is also requested of the licensee.

#### Appendix C – Daily Maintenance Log

- A check list item of the daily maintenance log is to “clean up spills immediately and report to the 24-hour spill line, if applicable.” Environment Canada reminds the Hamlet of Pond Inlet that it must **document and report all spills to the 24-hour spill line at (867) 920-8130**. This is in accordance with Part B, Item 6 of the NWB3PON0409 licence.

#### Additional Recommendations

- Environment Canada requests that first aid kits be made available in all vacuum trucks and at the sewage treatment facility.
- Environment Canada requests the inclusion of sludge management procedures in the sewage treatment facility’s operations and maintenance manual.

Environment Canada recommends that the following conditions be applied throughout all stages of the project:

#### GENERAL

- The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes, or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water is prohibited.



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If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing at (867) 975-4631 or by email via [david.abernethy@ec.gc.ca](mailto:david.abernethy@ec.gc.ca).

Regards,

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cc:     Colette Spagnuolo (Environmental Assessment/Contaminated Sites Specialist, Iqaluit)  
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