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Water Resources Division
Nunavut Regional Office
Iqaluit, NU X0A 0H0

Your File: 2BB-BOS0712
Our File/CIDM's #290241

December 19, 2008

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

Re: **Water License 2BB-BOS0712 / Miramar Hope Bay Ltd. / Boston Project / September 2008 Monthly Monitoring Report**

Please be advised that I have completed a review of the above-referenced September 2008 Monthly Monitoring Report. The Monitoring Report was submitted by Miramar Hope Bay Ltd. to the Nunavut Water Board on November 6, 2008. Please see the attached Technical Memorandum for your consideration.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4282 or by email at KaradagD@ainc-ianc.gc.ca

Yours truly,

Original Signed By

Dee Karadag
Water Resources Technician

Cc. Kevin Buck, Manager of Water Resources

David W. Abernethy, Regional Coordinator of Water Resources

Canada 



Technical Review Memorandum

TO Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board

Bernie MacIlsac, Manager of Field Operations, Indian and Northern Affairs Canada

From Dee Karadag, Water Resources Technician – Indian and Northern Affairs Canada – Nunavut Regional Office – Water Resources Division

Re: **Water License 2BB-BOS0712 / Miramar Hope Bay Ltd. / Boston Project – Submission of September 2008 Monthly Monitoring Report**

Miramar Hope Bay Ltd. submitted their September 2008 Monthly Monitoring Report for the Boston Project to the Nunavut Water Board (NWB) on November 6, 2008. The report was submitted as a requirement of Part J, Items 2 - 8 and Items 11 through 14, inclusive, of Water License #2BB-BOS0712.

The following documents were reviewed,

- September 2008 Monthly Monitoring Report
- Nunavut Water Board (NWB) Water Licence 2BB-BOS0712

COMMENTS

- 1) As per Table 2 (copied below) of the monthly report, analysis results from samples taken at the Sewage Disposal Facility Final Discharge (BOS-3 SDF) monitoring location showed the following parameters exceeded water license criteria;
 - Biochemical Oxygen Demand,
 - Total Suspended Solids (mg/L),
 - Faecal Coliform, and
 - Oil and Grease



Parameter	BOS-3 Sept 03/08 09:45 am	BOS-3 Sept15/08 no time	BOS-3 Sept08/08 @ 10:00 am	Maximum Average Concentration
BOD5	383	160	179	80 mg/L
Total Suspended Solids	237	184	62	100 mg/L
Faecal Coliform	200	2000000	4,600,000	10 x 10 ⁴ CFU/100mL
Oil and Grease	NVS	NVS	45	no visible sheen
pH	7.6	7.8	7.6	between 6.0 - 9.5

Miramar Hope Bay Ltd. indicated in their report that several actions will be undertaken in order resolve these exceedences, including;

- (i) reducing camp loading to the RBC Unit to 45 individuals
 - (ii) implementing an improved preventive maintenance plan including more regular pumping of sludge,
 - (iii) treatment of the sludge in the Doris North STP and
 - (iv) operational changes to the system to help improve the quality of the treated grey water effluent to the natural environment.
- 2) Miramar Hope Bay Ltd reported that the sewage effluent flow meter was installed in early October therefore no effluent sewage flow volumes were reported for September, 2008 (required by Part J Item 13).
- 3) During the month of September, 20 barrels of sludge were removed from the Boston STP and transferred to the Doris membrane plant for treatment.
- 4) Monthly monitoring results from Monitoring Program Stations BOS-2 (Part J item#2), BOS-5 and BOS-6 (Part J Item # 5) were not provided in the report.

RECOMMENDATIONS/ CONCLUSIONS

- 1) INAC recommends that Miramar Hope Bay Ltd include in the next Monthly Monitoring Report whether the identified action plans for mitigating license parameter exceedence levels was successful.



- 2) The volume of the effluent discharged for Boston Camp (BOS-3) should be included in the next Monthly Monitoring report.
- 3) Miramar Hope Bay Ltd should record the quantities in cubic meters of sludge removed from the Sewage Disposal Facility. (Part J Item #14)
- 4) INAC recommends that the Licensee clearly indicate why monitoring results were not reported for monitoring stations BOS-2, BOS-5, BOS-6.

This information has been forwarded to INAC's Field Operations Division for follow-up with an inspector.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4282 or by email at KaradagD@ainc-ianc.gc.ca

Regards,

Dee Karadag
Water Resources Technician