

4.2 Spills

Spills of unknown or hazardous substances at the landfill should be treated with extreme caution. Spilled materials should only be handled by properly trained and equipped personnel. The following actions should be undertaken by personnel in the event of a hazardous materials spill at the landfill:

- **Be alert and consider your personal safety first,**
- Assess the hazard to persons in the vicinity of the spill and where possible take action to control danger to human life. If possible, identify the material or products spilled,
- If the spill creates a fire, explosion or other hazard to human life, remove all potential ignition sources, if possible, evacuate the area and contact the RCMP and the Fire Department,
- If safe and practical, try to take appropriate action to stop the release of material,
- Contact the Public Works Supervisor and report the spill,
- Mark the spill scene to warn the public and prevent access.

Once contacted, the Municipal Works Supervisor shall:

- Proceed to the spill location,
- Make the necessary arrangements for first aid and removal of injured personnel. Take the necessary action, where possible, to secure the site to protect human safety,
- If not already done and it is safe to do so, take the appropriate action to stop the flow or release of material. If at all possible, take the necessary action to contain or prevent the spread of the spilled material,
- Contact the 24-hour Spill Line at (867) 902-8130
- Contact the Hamlet Senior Administrative Officer,
- Contact the Fire Department if required.

Throughout the spill response, personnel should place their personal safety as the highest priority.

4.3 Emergency Spillway

In the event that the content in the lagoon surpasses the intended carrying capacity, an emergency spillway is in place. High wind action, heavy rain-fall or operator neglect may be causes for increased levels of wastewater. This spillway ensures that the “water” level doesn’t exceed the required one meter freeboard. If such an event does occur, the excess flow will leave the lagoon via the engineered “dip” in the berm (emergency spillway), instead of over the berm, which would cause erosion. Effluent will flow into the adjacent wetlands.

5.0 REFERENCES

- Dillon Consulting Limited. "Sewage and Solid Waste Planning Study, Pond Inlet, NT", Produced for MACA, January 2000.
- Dillon Consulting Limited. "Sewage Treatment Using Tundra Wetlands", Produced for the Nunavut Water Board, MACA, DIAND, Environment Canada and the NWT Department of Health, 1997.
- Duong, D. and Kent, R. "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories", Produced for MACA, October 1996.
- Ferguson Simek Clark Engineers and Architects. "Final Report, Pond Inlet Secondary Sewage Treatment Options Review", Produced for Community Government and Transportation, Iqaluit, NT, January, 2002.
- Golder Associates. "Rehabilitation of the Sewage Lagoon, Pond Inlet", Produced for Dillon Consulting Limited, October, 2003.
- Heinke, G.W., Smith, D.W. and Finch, G.R. "Guidelines for the Planning, Design, Operation and Maintenance of Wastewater Lagoon Systems in the Northwest Territories, Volume I: Planning and Design", Produced for MACA, November 1988.

APPENDIX A

Hamlet of Pond Inlet Water License



P.O. Box

Gjoa Haven, NU, X0B 1J0

Tel: (867) 300-6338

1005-10th Avenue, Suite 101

NUNAVUT WATER BOARD

NU-0000000000

1005-10th Avenue, Suite 101

DECISION

LICENCE NUMBER: NWB3PON0409

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence dated January 20, 2003, made by:

Hamlet of Pond Inlet

to allow for the use of water and disposal of waste for the Hamlet at Pond Inlet, Nunavut. With respect to this application, the NWB gave notice to the public that the Hamlet had filed an application for a water licence.

DECISION

After having been satisfied that the application was exempt from the requirement for screening by the Nunavut Impact Review Board in accordance with S. 12.3.2 of the *Nunavut Land Claim Agreement* (NLCA), the NWB decided that the application could proceed through the regulatory process. After reviewing the submission of the Applicant and written comments expressed by interested parties, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Land Claims Agreement* and of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA), decided to waive the requirement to hold a public hearing and furthermore to delegate its authority to approve the application to the Chief Administrative Officer pursuant to S. 49(a) of the NWNSTRA and determined that:

Licence Number NWB3PON0409 be issued subject to the terms and conditions contained therein. (Motion #: 2003-08-10)

SIGNED this 14th day of January 2004 at Gjoa Haven, NU



Philippe di Pizzo
Chief Administrative Officer

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I. BACKGROUND

The Hamlet of Pond Inlet is located at 72° 42' N latitude and 77° 59' W longitude, on Eclipse Sound on the northern edge of Baffin Island. It is 525 air km southeast of Resolute and 1,883 air km northeast of Yellowknife. Steep snow-capped mountains, long U-shaped fjords, and highland glacial ice typify Pond Inlet. Relief is sometimes extreme with occasional peaks reaching 2500 m in height. Coastal areas are covered by surficial material, which has been re-worked by marine activity. The settlement occupies a hilly area near the south shore of Eclipse Sound, on the tip of an extensive glacial deposit. The glacial till is composed mainly of sand, with lesser quantities of gravel and silt. Bedrock composition is typically Precambrian metamorphic gneiss with a sporadic cover of younger Cretaceous-Tertiary sediments. These younger rocks are part of a regional basin known as the Eclipse trough, which is aligned in a northwest direction. Pond Inlet is within the continuous permafrost zone. Depending on the nature of the ground cover, the thickness of the active layer varies from 0.5 m to 1.5 m. Aerial photographs indicate the presence of vertical ice wedges at closely spaced intervals. Vegetation is sparse. Mosses, lichens, and a few hardy grasses grow in the summer months. Pond Inlet receives an average of 5.7 cm of rainfall and 86.9 cm of snowfall per year. Mean annual precipitation totals 14.6 cm. July mean high and low temperatures are 7.9°C and 1.2°C, respectively. January mean high and low temperatures are -26.4°C and -35.1°C, respectively. The mean annual ground surface temperature ranges from -10°C to -15°C. The winds are generally south and annually average 9.5 km/h.

II. PROCEDURAL HISTORY

On January 20, 2003, an application for the renewal of water licence NWB3PON9904 was filed by Ferguson Simek Clark Environmental Consultants (Yellowknife) on behalf of the Hamlet of Pond Inlet. The original licence NWB3PON9904 issued by the Board on January 15th, 1998, and amended on September 5th, 2001, is valid until January 14, 2004. The Nunavut Water Board publicly posted notice of this application, in accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 55.1 and Article 13 of the *Nunavut Land Claims Agreement*, on February 20, 2003. An assessment of the Hamlet's request for a municipal water licence for water use and waste disposal activities within the Hamlet was then undertaken, so that the Board could make a fully informed decision on the merits of application. This assessment process included the referral of the application to a variety of Federal, Territorial and local organizations for their review and comment. As no public concern was expressed, the NWB waived the requirement to hold a public hearing for the application.

Based upon the results of the detailed assessment of any potential accidents, malfunction might have in the area, the Board determined the application was pursuant to S. 17

of the *Agreement*, which was completed, including consideration of cumulative environmental effects that the overall project to the Chief Administrative Officer authority to approve the *Agreement*.

III. ISSUES

Term of the Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 45, the NWB may issue a licence for a term not exceeding twenty-five years. In determining an appropriate term of a water licence, the Board considers a number of factors, including the results of the Department of Indian Affairs and Northern Development (DIAND) site inspection and the compliance record of the Applicant. In review of the previous water licence NWB3PON9904, it was noted that there were several issues of non-compliance with the terms and conditions contained therein. Specifically, the June 26, 2001 DIAND Inspection Report indicates:

- 1 The Licensee failed to produce Annual Reports, as required by Part B, Item 1 of NWB3PON9904, for the years 1999 and 2000;
- 2 The Hamlet has failed to produce an Operations and Maintenance Plan, as required by Part G, Item 1 of NWB3PON9904; and
- 3 The Hamlet has failed to produce an Abandonment and Restoration Plan, as required by Part H, Item 1 of NWB3PON9904

The NWB has imposed, on the Licensee, the requirement to produce an Annual Report. These Reports are for the purpose of ensuring that the NWB has an accurate annual update of municipal activities during a calendar year. This information is maintained on the public registry and is available to any interested parties upon request. The Licensee's attention is drawn to the attached standard form for completing the Annual Report (see Attachment I)

The NWB has also imposed on the Licensee the requirement to produce an Operations and Maintenance Manual for their sewage and solid waste operations. The purpose of an Operation and Maintenance Manual is to assist Hamlet staff in the proper operation and maintenance of their waste disposal facilities. The manual should demonstrate to the Nunavut Water Board that the Hamlet is capable of operating and maintaining all waste disposal sites adequately. The Plan should be completed using the *Guidelines for the Preparation of an Operations and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories* (Duong and Kent, 1996; see Attachment II)

Finally, the NWB has imposed on the Licensee the requirement to produce an Abandonment and Restoration Plan for their sewage and solid waste facilities. To ensure that all future abandoned facilities and sites are reclaimed in an appropriate manner, the NWB requires Licensees to submit an Abandonment and Restoration Plan. The requirements of the Licensee in this regard are outlined in Part G of this License. The Licensee's attention is particularly drawn to the requirement to submit a Plan which addresses the Abandonment and Restoration of the Temporary Sewage Disposal Facility by June 30, 2004, as per Part G, Item 4 of this License. The NWB encourages the Licensee to undertake progressive reclamation on sites where possible

In review of the application, DIAND has recommended a licence term of five (5) years. The NWB concurs that a term of five (5) years is appropriate, and will allow enough time for the Hamlet to establish a consistent compliance record with the terms and conditions of its licence. It will also ensure that sufficient time is given to permit the Licensee to develop, submit, and implement the plans required under its licence to the satisfaction of the NWB.

Water Use

The Municipality currently receives water from Water Lake, located approximately 4.4 km south of town. This is supplemented during the summer months with water pumped from the nearby Salmon River. A truck fill station is located at Water Lake. The water receives a chlorine treatment and is then distributed to the community by truck. Water consumption is projected to reach 54,767 m³ per annum in 2003 and 64,568 m³ per annum by 2008.

No serious concerns were raised by the parties in their written submissions as to the amount of water required by the Applicant or the manner in which this water will be used. DIAND has provided specific recommendations regarding volume usage limits, as well as recommending that the Applicant be required to maintain the existing monitoring station at the water intake area PON-1 in order to monitor the volume of water used. The Department of Fisheries and Oceans provided specific recommendations relative to the intake screens at the water treatment facility, so as to prevent the entrainment of fish by the facility. The Board concurs with these recommendations, and has set the terms and conditions in the water licence, which govern water usage accordingly.

Deposit of Waste

Sewage

The Hamlet of Pond Inlet currently discharges sewage to an area known locally as "Kitingujaat", under an amendment to water license NWB3PON9904. This amendment was granted to allow the Hamlet of Pond Inlet to affect a remediation and expansion of the current sewage disposal lagoon, which is approximately 1.6 km north of the Municipality. The lagoon under repair and expansion will be expanded to a capacity of 90,000 m³, which is sufficient to meet the needs of the community during the 20 year planning horizon. The effluent from the sewage lagoon will proceed downstream through an undefined natural wetland where it will receive additional treatment prior to reaching the marine environment.

Specific comments relevant to sewage disposal operations in the hamlet were provided by DIAND and Environment Canada. Both DIAND and Environment Canada recommended that the Hamlet develop appropriate Operations and Maintenance and Spill Contingency Plan.

Additionally, DIAND provided recommendations concerning effluent discharge criteria, which are consistent with the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories* (Northwest Territories Water Board: 1992), as well as specific recommendations concerning the Monitoring Program. This Program is established to collect data on water quality to assess the effectiveness of treatment for protection of public health and to assess potential impacts to the environment associated with the municipal facilities. The Board concurs with these recommendations, which are reflected in the terms and conditions of the Water Licence. The Board also draws the attention of the Licensee to their requirements to implement the Quality Assurance/Quality Control (QA/QC) Plan to be provided by the NWB. The purpose of the QA/QC Plan is to ensure that samples taken in the field, as part of the Monitoring Program, will maintain a high quality, so as to accurately represent the physical and chemical nature of the samples being taken. It should also be noted that while minimum sampling requirements have been imposed, additional sampling may be requested by an Inspector.

Solid Waste

The Hamlet's solid waste management site is located adjacent to the Sewage Disposal system, approximately 1.6 km from the community. Waste is segregated, with a generic landfill area, a bulky wastes area, and a sealift container for hazardous wastes. Combustible wastes are burned regularly, and the landfill is compacted and covered on a yearly basis.

Recommendations relevant to solid waste disposal operations in the Hamlet were provided by DIAND, Environment Canada and DFO. DIAND and Environment Canada recommended that the Hamlet develop appropriate Operations and Maintenance and Spill Contingency Plans. DIAND further recommended that the Hamlet segregate hazardous materials such as waste oils and batteries from municipal solid waste, and that these materials be disposed of off-site in an approved facility. DFO recommended the fencing at the solid waste site be properly maintained, so as to prevent the deposition of airborne litter into waste in contravention of the *Fisheries Act*. The Board concurs with these recommendations, which are reflected in the terms and conditions of the Water Licence.

LICENCE NWB3PON0409

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to:

HAMLET OF POND INLET

(Licensee)

of

POND INLET, NUNAVUT, X0A 0S0

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water for a period subject to restrictions and conditions contained within this licence:

NWB3PON0409

Licence Number

NUNAVUT 05

Water Management Area

POND INLET, NUNAVUT

Location

WATER USE AND WASTE DISPOSAL

Purpose

MUNICIPAL UNDERTAKINGS

Description

67,000 CUBIC METRES ANNUALLY

Quantity of Water Not to be Exceeded

JANUARY 15, 2004

Date of Licence

January 31, 2008

Expiry Date of Licence

Dated this 14th of January 2004 at Compton Haven, NU.



Philippe di Pizzo
Chief Administrative Officer

PART A: SCOPE AND DEFINITIONS

1. Scope

- a. This Licence allows for the use of water and the disposal of waste for municipal undertakings at the Hamlet of Pond Inlet, Nunavut (72°42' N, 77°59' W);
- b. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and:
- c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

In this Licence: NWB3PON0409

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Amendment**” means a change to original terms and conditions of this licence requiring correction, addition or deletion of specific terms and conditions of the licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Analyst**” means an Analyst designated by the Minister under Section 85 (1) of the *Act*;

“**Appurtenant undertaking**” means an undertaking in relation to which a use of waters or a deposit of waste is permitted by a licence issued by the Minister;

“**Average Concentration**” means the arithmetic mean of the last four consecutive analytical results for contained in composite grab samples collected from the Waste Disposal Facility’s final discharge point;

“Average Concentration For Faecal Coliforms” means the geometric mean of the last four consecutive analytical results for faecal coliforms contained in composite or grab samples collected from the Waste Disposal Facility’s final discharge point;

“Board” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement*;

“Chief Administrative Officer” means the Executive Director of the Nunavut Water Board;

“Commercial Waste Water” means water and associated waste generated by the operation of a commercial enterprise, but does not include toilet wastes or greywater;

“Composite Sample” means a water or wastewater sample made up of four (4) samples taken at regular periods over a 24 hour period;

“Effluent” means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond or a treatment plant;

“Freeboard” means the vertical distance between water line and crest on a dam or dyke’s upstream slope;

“Grab Sample” means a single water or wastewater sample taken at a time and place representative of the total discharge;

“Greywater” means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“Inspector” means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

“Licensee” means the holder of this Licence;

“Modification” means an alteration to a physical work that introduces new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion, and changes to the operating system that are consistent with the terms of this Licence and do not require amendment;

“Monitoring Program” means a monitoring program established to collect data on surface water and groundwater quality to assess impacts to the freshwater aquatic environment of an appurtenant under;

“Nunavut Land Claims Agreement” (NLCA) means the *“Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada”*, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Sewage” means all toilet wastes and greywater;

“Sewage Disposal Facilities” comprises the area and engineered lagoon and decant structures designed to contain and treat sewage as described in the Application for Water Licence filed by the Applicant on January 20, 2003 and illustrated in Drawing Nos. 2001-058 and 2002-1000-055;

“Solid Waste Disposal Facilities” comprises the area and associated structures designed to contain solid waste as described in the Application for Water Licence filed by the Applicant on January 20, 2003 and illustrated in Drawing No. 2002-1000-055;

“Temporary Sewage Disposal Facilities” comprises the area known locally as “Kitingujaat”, which is currently utilized as a temporary sewage disposal site, as described in the Amendment to Water License NWB3PON9904 approved by the NWB on September 7, 2001;

“Toilet Wastes” means all human excreta and associated products, but does not include greywater;

“Waste” means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

“Waste Disposal Facilities” means all facilities designated for the disposal of waste, and includes the Sewage Disposal Facilities and Solid Waste Disposal Facilities, as described in the Application for Water Licence filed by the Applicant on January 20, 2003 and illustrated in Drawing No. 2002-1000-055; and

“Water Supply Facilities” comprises the area and associated intake infrastructure at Water Lake and the Salmon River, as described in the Application for Water Licence filed by the Applicant on January 20, 2003 and illustrated in Drawing No. 2002-1000-055;

PART B: GENERAL CONDITIONS

- i. The Licensee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information:
 - i. tabular summaries of all data generated under the "Monitoring Program";
 - ii. the monthly and annual quantities in cubic metres of fresh water obtained from all sources;
 - iii. the monthly and annual quantities in cubic metres of each and all waste discharged; a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;
 - iv. a list of unauthorized discharges and summary of follow-up action taken;
 - v. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - vi. a summary of any studies, reports and plans (e.g., Operation and Maintenance, Abandonment and Restoration, QA/QC) requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
- ii. The Licensee shall comply with the "Monitoring Program" described in this Licence, and any amendments to the "Monitoring Program" as may be made from time to time, pursuant to the conditions of this Licence.
3. The "Monitoring Program" and compliance dates specified in the Licence may be modified at the discretion of the Board.
4. Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
5. The Licensee shall, within ninety (90) days after the first visit of the Inspector, post the necessary signs, where possible, to identify the stations of the "Monitoring Program." All signage postings shall be in the Official Languages of Nunavut, and shall be located and maintained to the satisfaction of an Inspector.

6. The Licensee shall immediately report to the 24-Hour Spill Report Line (867-920-8130) any spills of Waste, which are reported to or observed by the Licensee, within the municipal boundaries or in the areas of the Water Supply or Waste Disposal Facility.
7. The Licensee shall ensure a copy of this Licence is maintained at the municipal office at all times. Any communication with respect to this Licence shall be made in writing to the attention of

(i) Chief Administrative Officer:

Executive Director
Nunavut Water Board
P.O. Box 119
Gloa Haven, NU X0B :
Telephone: (867) 360-6328
Fax: (867) 360-6369

(ii) Inspector Contact:

Water Resources Officer
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4298
Fax: (867) 979-6445

(iii) Analyst Contact:

Taiga Laboratories
Department of Indian and Northern Affairs
4601 - 52 Avenue, P.O. Box 1500
Yellowknife, NT X1A 2R3
Telephone: (867) 669-2781
Fax: (867) 669-27

The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.

PART C: CONDITIONS APPLYING TO WATER USE

The Licensee shall obtain all fresh water from Water Lake and the Salmon River using the Water Supply Facilities or as otherwise approved by the Board

2. The annual quantity of water used for all purposes shall not exceed 67,000 cubic metres.

The Licensee shall maintain the Water Supply Facilities to the satisfaction of the Inspector.

4. The water intake hose used on the water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall direct all Sewage to the Sewage Disposal Facilities or as otherwise approved by the Board.

2. All Effluent discharged from the Sewage Disposal Facilities at Monitoring Program Station PON-4 shall meet the following effluent quality standards:

Parameter	Maximum Average Concentration
Faecal Coliforms	1×10^6 CFU/dl
BOD ₅	120 mg/L
Total Suspended Solids	180 mg/L
Oil and grease	No visible sheen
pH	between 6 and 9

3. A Freeboard limit of 1.0 metre, or as recommended by a qualified geotechnical engineer and as approved by the Board, shall be maintained at all dams, dykes or structures intended to contain, withhold, divert or retain water or wastes

4. The Licensee shall advise an Inspector at least ten (10) days prior to initiating any decant of the sewage lagoon.

The Sewage Disposal Facility shall be maintained and operated to the satisfaction of an Inspector in such a manner as to prevent structural failure.

The Licensee shall dispose of and contain all solid wastes at the Solid Waste Disposal Facilities or as otherwise approved by the Board.

The Licensee shall implement measures to ensure hazardous materials and/or leachate from the Solid Waste Disposal Facility does not enter water.

PART E: CONDITIONS APPLYING TO MODIFICATION AND CONSTRUCTION

1. The Licensee shall submit to the Board for approval design drawings stamped by a qualified engineer registered in Nunavut prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or wastes.
2. The Licensee may, without written approval from the Board, carry out modifications to the Water Supply and Waste Disposal Facilities provided that such modifications are consistent with the terms of this Licence and the following requirements are met:
 - i. the Licensee has notified the Board in writing of such proposed modifications at least sixty (60) days prior to beginning the modifications;
 - ii. said modifications do not place the Licensee in contravention of the Licence or the Act;
 - iii. the Board has not, during the sixty (60) days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - iv. the Board has not rejected the proposed modifications.
3. Modifications for which all of the conditions referred to in Part E, Item 1, have not been met may be carried out only with written approval from the Board.
4. The Licensee shall provide as built plans/drawings of the modifications to the Sewage Disposal Facilities referred to in this Licence within ninety (90) days of completion of the modifications.

PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

1. The Licensee shall, before June 30, 2004 submit to the Board for approval, a Plan for the Operation and Maintenance of the Sewage and Solid Waste Disposal Facilities in accordance with "*Guidelines for Preparing an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities*" (October 1996).
2. The Licensee shall implement the Plan specified in Part F, Item 1 as and when approved by the Board.
3. The Licensee shall revise the Plan referred to in Part F, Item 1, if not acceptable to the Board. The revised Plan shall be submitted to the Board for approval within thirty (30) days of notification of the Board decision.
4. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall
 - i. employ the appropriate contingency plan as provided for in the Operation and Maintenance Plan;
 - ii. report the incident immediately via the 24-Hour Spill Reporting Line at (867) 920-8130 and to an Inspector; and
 - iii. submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licensee shall submit to the Board for approval an Abandonment and Restoration Plan at least six (6) months prior to abandoning any facilities and the construction of new facilities to replace existing ones. The Plan shall include, but not be limited to: (where applicable)
 - i. water intake facilities;
 - ii. the water treatment and waste disposal sites and facilities;
 - iii. petroleum and chemical storage areas;
 - iv. any site affected by waste spills;
 - v. leachate prevention;
 - vi. an implementation schedule;
 - vii. maps delineating all disturbed areas, and site facilities;
 - viii. consideration of altered drainage patterns;
 - ix. type and source of cover materials;
 - x. future area use

- xi. hazardous wastes; and
- xii. a proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment;

2 The Licensee shall implement the plan specified in Part G, Item 1 as and when approved by the Board.

The Licensee shall revise the Plan referred to in Part G, Item 1 if not approved. The revised Plan shall be submitted to the Board for approval within thirty (30) days of receiving notification of the Board's decision.

4 The Licensee shall submit to the Board for approval an Abandonment and Restoration Plan for the Temporary Sewage Disposal Facilities by June 30, 2004. The Plan shall include, but not be limited to: (where applicable):

- the waste disposal sites and facilities;
- ii. any site affected by waste spills;
- iii. leachate prevention;
- iv. an implementation schedule;
- v. maps delineating all disturbed areas, and site facilities;
- vi. consideration of altered drainage patterns;
- vii. type and source of cover materials;
- viii. future area use;
- ix. hazardous wastes; and
- x. a proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment.

5 The Licensee shall implement the plan specified in Part G, Item 4 as and when approved by the Board.

6 The Licensee shall revise the Plan referred to in Part G, Item 4 if not approved. The revised Plan shall be submitted to the Board for approval within thirty (30) days of receiving notification of the Board's decision.

7 The Licensee shall complete the restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.

PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall maintain Monitoring Program Stations at the following locations

<u>Monitoring Program Station</u>	<u>Description</u>
PON-1	Raw water supply at Water Lake and the Salmon River prior to treatment
PON-2	Runoff from the Solid Waste Disposal Facility
PON-3	Raw Sewage at truck offload point
PON-4	Effluent discharge from the Sewage Disposal Facility
PON-5	Effluent from the Temporary Sewage Disposal Facility

2. The Licensee shall sample monthly at Monitoring Program Station PON-2, PON-4 and PON-5 during the months of May to August, inclusive. Samples shall be analyzed for the following parameters

BOD	Faecal Coliforms
pH	Conductivity
Total Suspended Solids	Ammonia Nitrogen
Nitrate-Nitrite	Oil and Grease (visual)
Total Phenols	Sulphate
Sodium	Potassium
Magnesium	Calcium
Total Arsenic	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
Total Zinc	

3. The Licensee shall measure and record in cubic metres the monthly and annual quantities of water pumped from Monitoring Program Station PON-1 for all purposes.
 4. The Licensee shall measure and record in cubic metres the monthly and annual quantities of raw sewage offloaded from trucks at Monitoring Program Station PON-3 for all purposes.
 5. Additional sampling and analysis may be requested by an Inspector
- The Licensee shall conform to the Quality Assurance/Quality Control (QA/QC) Plan which

shall be provided to the Licensee by the NWB within 60 days of the issuance of this licence.

7. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board
8. All analyses shall be performed in a Canadian Association of Environmental Analytical Laboratories (CAEAL) Certified Laboratory, or as otherwise approved by an Analyst.
9. The Licensee shall measure and record the annual quantities of sewage solids removed from the Sewage Disposal Facility
10. The Licensee shall, unless otherwise requested by an Inspector, include all of the data and information required by the "Monitoring Program" in the Licensee's Annual Report, as required *per* Part B, Item 1.
11. Modifications to the Monitoring Program may be made only upon written approval of the Chief Administrative Officer