# Annual Reports: 2004-2011

# Water Licences: 3BM-REP 0409 Hamlet of Repulse Bay, Nunavut

Submitted to the Nunavut Water Board
March 24, 2014

By:

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Department of Community and Government Services Nunalingni Kavamatkunnilu Pivikhaqautikkut Ministère des Services Communautaires et gouvernementaux

Repulse Bay Water Licence: 3BM-REP 0409

Annual Reports 2004- 2011

March 25, 2014

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1L0

Attention: Phyllis Beaulieu, Manager of Licensing

RE: Annual Reports 2004- 2011: Hamlet of Repulse Bay Water Licence: 3BM-REP0409

Dear Ms. Phyllis,

The Hamlet of Repulse Bay is pleased to submit to Nunavut Water Board this attached file containing Annual Reports 2004-2011 of water uses and waste disposal as requested and directed under the compliance of uses in Water Licence 3BM-REP 0409.

We realize that these reports are submitting currently in a later date from original obligation, however, these are in compliance with outstanding items as notified by the Board. We summarize those conditions and requirements outlined in Part B through Part H in Water Licence as below:

#### Part B: General Conditions:

- √ Tabular form of water consumption and sewage disposal are filled up from Hamlet Fluid Manager recorded from daily water distribution and sewage disposal.
- ✓ No device Meter available for volume measurement, however, truck-fill measurement shows precise and close to accurate in measuring quantities.

### Part C: Conditions applying to water use:

✓ All water obtained from Nuviq Luktujuk Lake as the approved source and annual quantities of 24,000 cubic metres annually allowed to intake.



Department of Community and Government Services Nunalingni Kavamatkunnilu Pivikhaqautikkut Ministère des Services Communautaires et gouvernementaux

#### Part D: Conditions applying to waste disposal:

- ✓ All sewage and solid waste disposal carried into the community Sewage Lagoon facility. The exfiltration lagoon helps continuous seepage of sewage water across the granular berm when melts in summer time and thus reduce the sewage water inside the lagoon. Annual Decanting carries for making additional room for new raw sewage from truck off loads for the duration until the following year thawing.
- ✓ Landfarm facility uses for contaminated soil storage and treatment before using as cover materials for landfill.

#### Part F: Conditions applying to operation and maintenance:

- ✓ Improvement for Solid waste facility carried including waste segregation, hazardous isolation, storage of contaminated soil with hydrocarbons. With the monitoring of sewage waste and solid waste facility, effluent sample results shows expected improvement in contamination parameters within allowable limits.
- ✓ Hamlet kept maintaining the water intake, treatment and distribution to the facility including the reservoir for summer turbidity issue and cleanup of sediments.

We hope that Nunavut Water Board will find these reports valuable in continue allowing the community operating water, sewage and solid waste disposal.

Sincerely,

Shah Alam, P. Eng.

Municipal Planning Engineer,

Government of Nunavut

Community and Government Services

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# Hamlet of Repulse Bay, NUNAVUT

# Annual Reports 2004-2011

Water uses, Sewage & Solid waste disposal and contaminated soil treatment

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# **ANNUAL REPORT 2004- Repulse Bay**

#### YEAR BEING REPORTED: 2004 (revised)

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **NWB-3REP0409** issued to the **Hamlet of Repulse Bay** 

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i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	1,997,548.30	Same
February	1,940,676.60	Same
March	2,156,722.80	Same
April	368,527.40	Same
May	2,022,027.40	Same
June	1,827,474.20	Same
July	2,059,706.90	Same
August	2,082,585.00	Same
September	2,220,654.00	Same
October	2,220,924.70	Same
November	2,105,761.10	Same
December	2,223,562.00	Same
ANNUAL TOTAL	23,226,170.40	Same

Water Licence: NWB -3REP0409 Page 1 of 3

# **ANNUAL REPORT 2004- Repulse Bay**

- iv. 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:
  - A Solid Waste Facility installed for bulk material, metal and hazardous materials.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage waste during the period
  - The newly built landfill site is not included in the current Water Licence; hence considered not authorized disposal of solid waste at the Landfill. The Licensee will submit an Amendment Application with request for this Landfill inclusion.
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - The old solid waste site will be closed and considered abandoned. The metal and waste materials within the old waste area will be covered with earthen materials and will be closed permanently form further uses.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
  - Dillon consulting designed the Solid Waste Facility, but no details or as-built drawings submitted-the Board requested the Licensee for submission the design Development Report, as-built drawings and O&M manual. The Board requested to submit Annual Report with information of water uses and waste disposal quantity, measuring device, effluent monitoring and sampling results.
  - The Licensee will submit the O&M manual once completed and also plan for a Long Term Solid Waste Management solution.
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - Design Report of Solid waste facility and waste types using in the facility.
  - Facility monitoring Plan in compliance with Environmental Guideline and wild life protection Act.

Water Licence: NWB -3REP0409 Page 2 of 3

#### ix. Updates or revisions to the approved Operation and Maintenance Plans

• No O&M manual available of previous solid waste facility, but an updated plan for new facility in next year.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Licensee will be hiring a consultant for solid waste facility Operation & Maintenance Plan preparation and operator training program.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

• DIAND inspection 2003 noted refuge including unused oil drums at the sewage lagoon. The inspector also noted solid migration within the lagoon since no solid retention cell prior to entering into wetland.

The Licensee has cleaned up those drum from lagoon site and controlled solid migration onto wetland with shallow earthen berm down the lagoon outfall. Monitoring sump installed for solid sediment before direct merging to wetland.

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YEAR BEI	NG REPOF	RTED: <u>20</u>	<u>)05</u>

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **NWB-3REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,065,375.50	Same
February	1,946,450.30	Same
March	2,082,650.70	Same
April	1,963,585.40	Same
Мау	2,076,850.80	Same
June	1,895,674.20	Same
July	2,066,578.60	Same
August	2,086,865.80	Same
September	2,178,465.70	Same
October	2,152,285.90	Same
November	2,167,596.30	Same
December	2,125,478.60	Same
ANNUAL TOTAL	24,807,857.80	Same

Water Licence: NWB -3REP0409: Annual Report 2005 Page 1 of 3

- iv. 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:
  - No modification or major maintenance to water and sewage system.
  - A Solid Waste Facility including a Landfarm surrounded by berm for contaminated soil storage and treatment installed.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period, but storage of contaminated soil inside the unlined area without a water licence active
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

- Environment Canada recommended for signage posting at wetland, sewage and solid waste facilities and monitoring stations.
- EC recommended a berm or similar measure should be erected at the toe of the landfill

Ref. Environment Canada Letter Oct 24, 2005

- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - Complete information of Annual Report 2004, Part B, item1 which was noted as incomplete submitted by the Licensee.
  - Effluent analyzing report for samples collecting from monitoring stations REP-2 and REP as identified in Part H, Item 2 of Water Licence.
  - Measure and records of sewage solids disposal from sewage facility, as per part H Item 9
  - Detailed summary outlining consideration applicable to Annual Report 2004.

Ref. NWB letter Oct 28, 2005

Water Licence: NWB -3REP0409: Annual Report 2005 Page 2 of 3

#### ix. Updates or revisions to the approved Operation and Maintenance Plans

 Plan for an interim O&M plan since there is no active manual for solid waste facility available.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- Nuna Burnside Engineering retained to study and preparation of an Interim
  Operational and Maintenance Plan for the completed solid waste facility which
  has no manual for operation.
- An Application for Amendment to Water Licence submitted on June 23<sup>rd</sup> 2005 for the inclusion of the completed Solid Waste Disposal Facility with the Licence.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

- The Licensee is aware of the Annual Report 2004 which was noted as incomplete since not filled-up remaining items except item 1 (i)-(iii) of Part B. The Licensee noting here, there wasn't any reportable information or activities of repair, maintenance, abandonment or restoration during that year.
- The hamlet has no mechanical device to measure sewage disposal in the lagoon
  or sewage water discharge from lagoon to wetland. Annual decanting carries up to
  a reasonable level in the lagoon or reasonable quantity dischargeable by the pump.
  Tentative volume measures from pump discharge rate over time of decanting
  operation.

Quantity of raw sewage discharge measures from sewage truck capacity and number of truck loads uses daily and monthly.

Water Licence: NWB -3REP0409: Annual Report 2005 Page 3 of 3

# Annual Report 2006

Repulse Bay Water Licence NWB-3REP 0409

Date of issuance: June 11, 2004

Date of Expiry: May 31, 2009

# **ANNUAL REPORT 2006- Repulse Bay**

# YEAR BEING REPORTED: 2006

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **NWB-3REP0409** issued to the **Hamlet of Repulse Bay** 

.

 i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,073,375.50	Same
February	1,966,450.30	Same
March	2,072,650.70	Same
April	1,993,585.40	Same
Мау	2,077,850.80	Same
June	2,096,674.20	Same
July	2,086,578.60	Same
August	2,088,865.80	Same
September	2,196,465.70	Same
October	2,192,285.90	Same
November	2,187,596.30	Same
December	2,115,478.60	Same
ANNUAL TOTAL	25,147,857.80	Same

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# ANNUAL REPORT 2006- Repulse Bay

- iv. 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:
  - No modification or major maintenance for water and sewage facilities
  - Addition of an unlined area surrounded by berm for contaminated soil storage and primary treatment of petroleum Hydrocarbon and diesel/oil mix.
- a list of unauthorized discharges and summary of follow-up action taken; v.
  - No unauthorized discharge of sewage or solid waste during the period
  - Storage of contaminated soil inside the unlined area without a water licence active

Ref. EC Letter June 8, 2006 referring to NWB letter Oct 28, 2005

- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- a summary of any studies requested by the Board that relate to waste disposal, vii. water use or reclamation, and a brief description of any future studies planned;

- The Board requested EC for comments of FSC submission for a Landfarm operation.
- EC in their review commended for general conditions applied meeting requirements of Fisheries Act, Environmental Site Assessment steps with standards set by CCME, Migratory Birds Convention Act (Ref. CWS).
- EC recommended to analyze contaminated soil by types and prior to design to evaluate soil for well-suited to landfarming.

Ref. Environment Canada Letter June 8, 2006

- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - Complete information of Annual Report 2004, Part B, item1, noted as incomplete
  - Effluent analyzing report for samples collecting from monitoring stations REP-2 and REP as identified in Part H, Item 2 of Water Licence.
  - Measure and records of sewage solids disposal from sewage facility, as per part H Item 9
  - Detailed summary outlining consideration applicable to Annual Report 2004.

Ref. NWB letter Oct 28, 2005

Page 2 of 3 Water Licence: NWB-3REP0409

#### ix. Updates or revisions to the approved Operation and Maintenance Plans

 Nuna Burnside Engineering prepared an Interim O&M plan and manual for Solid Waste Facility.

[This Interim Plan remains for submission to the Board]

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- Solid Waste Facility study and Interim Operational & Maintenance Plan included current facility for waste management and hydrocarbon contaminated soil storage and treatment although the Licensee waiting for such approval from the Board.
- Soil stored within the confined area in depths of 100 cm, approximately 1890 m3 total, surrounded by a 30 cm high berm. Soil will be treated with a layer not over 50 cm as per design and operational period.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

• The Licensee is aware of the Annual Report 2004 which was noted as incomplete since not filled-up remaining items except item 1 (i)-(iii) of Part B. The Licensee noting here, there wasn't any reportable information or activities of repair, maintenance, abandonment or restoration during that year.

Water Licence: NWB-3REP0409 Page 3 of 3

# Annual Report 2007

Repulse Bay Water Licence 3BM-REP 0409

Date of issuance: Sep 27, 2007

Date of Expiry: May 31, 2009

# **ANNUAL REPORT 2007- Repulse Bay**

# YEAR BEING REPORTED: 2007

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence 3**BM-REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,275,193.80	Same
February	2,080,571.90	Same
March	2,296,030.76	Same
April	2,316,669.10	Same
Мау	2,365,779.80	Same
June	2,067,401.54	Same
July	2,239,689.50	Same
August	2,391,187.30	Same
September	2,343,161.84	Same
October	2,211,073.58	Same
November	2,271,234.28	Same
December	2,439,007.20	Same
ANNUAL TOTAL	27,297,000.60	Same

Water Licence: 3BM-REP0409 Page 1 of 3

# **ANNUAL REPORT 2007- Repulse Bay**

- iv. 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:
  - Two generator set at the pumphouse are very old and almost end of life to be replaced. The hamlet planned to hire a contractor to replace these generator sets and expected starts next year.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

- The Board instructed the Licensee to comply those recommendation made by EC to follow up with the Amendment Licence as integral compliance to the original Licence.
  - Note that the Board advised INAC pursuant to section 87 and 87 of the NWNSRTA and requested for guidance on issuing of a Licence of the existing facilities for past activities and facilities for future operations.
- EC in their comment encourages NWB to continue its review of these applications and recommended the applicant (Licensee) to submit information on the current status of the activities.

Ref. NWB Letter and Amendment #1 Licence 3Bm-REP0409, Sep 27, 2007

- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - NWB instructed the Licensee to maintain Monitoring Stations REP-1 through REP-7 for identified locations and sample effluent at least once a year from Stations REP-5, REP-6 and REP-7. Confirmation of location with signage identity must be ensured with the Board and results of samples with Annual Report.

Water Licence: 3BM-REP0409 Page 2 of 3

#### ix. Updates or revisions to the approved Operation and Maintenance Plans

• The O&M manual for Solid Waste Facility by Nuna Burnside Engineering remains in effect for facility current operation.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- The Licensee prepared a Plan of Compliance for facilities operation.
- The Licensee realize that water uses quantity exceeded the allowable limit of 24,000 m3 annually, but in the Amendment #1 License, the Board did not addressed any statement or request, the current License remains active until May 31, 2009
- In the Amendment#1 License, the Landfarm Facility location name observed the hamlet of Whale Cove (by mistake) instead of Hamlet of Repulse Bay.

  Ref.: NWB Letter and Amendment #1 3Bm-REP0409, page 2, Sep 27, 2007

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

- The Licensee is aware of Landfarm Facility, monitoring wells and sampling stations. A temporary signage for these stations will be installed until a final approved signs available. The Licensee is concern about the availability of sample effluent at the downgradient and even at the up-gradient after mid-summer as there might not a flow occurred during that time. Every possibility of getting a flow when snow melts water flow down during July-Aug and perhaps one sample might be available instead of once in each month, but the Licensee will try best to collect at least one sample on each month when available.
- ALS laboratory in Winnipeg is listed as CALA laboratory for effluent sample tests.

Water Licence: 3BM-REP0409 Page 3 of 3

# Annual Report 2008

Repulse Bay Water Licence 3BM-REP 0409

Date of issuance: Sep 27, 2007

Date of Expiry: May 31, 2009

### **ANNUAL REPORT 2008- Repulse Bay**

# YEAR BEING REPORTED: 2008

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **3BM-REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,189,098.46	Same
February	2,262,299.65	Same
March	2,342,888.53	Same
April	2,432,626.37	Same
May	2,328,345.25	Same
June	2,257,658.53	Same
July	2,108,244.50	Same
August	2,257,429.30	Same
September	2,135,978.00	Same
October	2,256197.53	Same
November	2,317586.00	Same
December	2,222109.00	Same
ANNUAL TOTAL	27,110,461.12	Same

Water Licence: 3BM-REP0409 Page 1 of 3

# **ANNUAL REPORT 2008- Repulse Bay**

- iv. 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:
  - Replaced both generator sets replaced at the pumphouse along with automatic transfer switch when necessary to switch pumps for water intake.
  - No major repair or maintenance for sewage lagoon or solid waste facilities this period.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

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- The Board instructed the Licensee to comply the recommendation made by EC to set up perimeter fence around the solid waste facility to prevent lightweight materials flown out and protect animal access inside the waste facility. The Licence has a plan for such fence installation, a contract by GN out by next year.
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - NWB instructed the Licensee to maintain Monitoring Stations and sampling effluent at least once a year from Stations, confirmation of location with signage identity must be ensured with the Board and results with Annual Report.
- ix. Updates or revisions to the approved Operation and Maintenance Plans
  - A long Term Sustainable operational plan and O&M manual for Solid Waste Facility. Current Interim O&M manual prepared by Nuna Burnside in 2006.

Water Licence: 3BM-REP0409 Page 2 of 3

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

• The sewage lagoon noticed more seepage through the exfiltration berm and possible breaching if such discharge continued. A geotechnical investigation is in plan for Dam Safety inspection by a Geotechnical Engineer. The hamlet is monitoring the berm on regular maintenance and decanting sewage water to reduce pressure across the berm.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

• The Licensee is aware of sampling stations and signage for facilities and stations, standard signage will be installed approved signs available.

Water Licence: 3BM-REP0409 Page 3 of 3

# Annual Report 2009

Repulse Bay Water Licence 3BM-REP 0409

Date of issuance: Sep 27, 2007

Date of Expiry: May 31, 2009

# **ANNUAL REPORT 2009- Repulse Bay**

# YEAR BEING REPORTED: 2009

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **3BM-REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,281,756.40	Same
February	2,112,222.00	Same
March	2,508,706.30	Same
April	2,327,122.91	Same
Мау	4,863,539.21	Same
June	2,520,439.10	Same
July	2,661,023.60	Same
August	2,743,325.20	Same
September	2,671,980.10	Same
October	2,816,378.30	Same
November	2,657,700.00	Same
December	2,582,954.50	Same
ANNUAL TOTAL	32,747,147.62	Same

Water Licence: 3BM-REP0409 Page 1 of 3

# **ANNUAL REPORT 2009- Repulse Bay**

- iv. 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:
  - Replaced automatic transfer switch of both generator sets installed last year and working good at the time of installation but not working in kicking pumps when necessary to switch to water intake.
  - No major repair or maintenance for sewage lagoon or solid waste facilities.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
  - No inspection or request for this year. The Licensee has a plan for sewage lagoon study, geotechnical inspection and possible new sewage lagoon based on findings and funding.
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - No specific request but those outstanding items of Annual Reports and Compliance Plan.
- ix. Updates or revisions to the approved Operation and Maintenance Plans
  - Trow Engineering Consultants prepared a Long Term sustainable Operational and Management Plan (O&M) and manual for Solid Waste Facility operation and control of vast solid waste storing on site years after years and creates Environmental issues.

Water Licence: 3BM-REP0409 Page 2 of 3

# ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

• A plan for intake pumphouse improvement and sewage lagoon by next year.

# FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

Water Licence: 3BM-REP0409 Page 3 of 3

# Annual Report 2010

Repulse Bay Water Licence 3BM-REP 0409

Date of issuance: Sep 27, 2007

Date of Expiry: May 31, 2009

# **ANNUAL REPORT 2010- Repulse Bay**

# YEAR BEING REPORTED: 2010

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **3BM-REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,525,695.70	Same
February	2,430,035.35	Same
March	2,700,654.40	Same
April	2,639,421.30	Same
Мау	4,726,523.00	Same
June	2,435,095.50	Same
July	2,672,774.80	Same
August	2,791,146.80	Same
September	2,664,207.60	Same
October	2,685,804.60	Same
November	2,486,634.30	Same
December	2,577,599.20	Same
ANNUAL TOTAL	31,335,592.55	Same

Water Licence: 3BM-REP0409 Page 1 of 3

# ANNUAL REPORT 2010- Repulse Bay

- iv. 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:
  - No major modification but regular maintenance for water intake, distribution and sewage solid waste management.
  - No structure for water or sewage waste, but a fence surrounding the Solid Waste facility.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and no plan for next year.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

- No instruction or request by the Board, but for submission of Annual Report
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
- ix. Updates or revisions to the approved Operation and Maintenance Plans
  - Plan for O&M manual updating for water intake pumphouse and exfiltration sewage lagoon—which noticed outstanding.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

A Project contract awarded and completed a perimeter Fence for Solid Waste site.

Water Licence: 3BM-REP0409 Page 2 of 3

# FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

Water Licence: 3BM-REP0409 Page 3 of 3

# Annual Report 2011

Repulse Bay Water Licence 3BM-REP 0409

Date of issuance: Sep 27, 2007

Date of Expiry: May 31, 2009

### **ANNUAL REPORT 2011- Repulse Bay**

# YEAR BEING REPORTED: 2011

The following information is compiled pursuant to the requirements of **Part B**, Item 1 of Water Licence **3BM-REP0409** issued to the **Hamlet of Repulse Bay** 

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported by Fluid Manager and quantities of sewage waste based on discharged on daily basis.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	2,675,444.00	Same
February	2,391,874.20	Same
March	2,737,360.40	Same
April	2,624,367.30	Same
May	2,565,297.00	Same
June	2,391,023.40	Same
July	2,756,544.90	Same
August	3,009,688.00	Same
September	2,949,487.70	Same
October	3,003,398.70	Same
November	2,899,641.30	Same
December	2,747,159.00	Same
ANNUAL TOTAL	32,751,285.90	Same

Water Licence: 3BM-REP0409 Page 1 of 3

# **ANNUAL REPORT 2011- Repulse Bay**

- iv. 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:
  - No major repair or maintenance to water or solid waste facilities.
  - Berm repair and sewage containment at off load point including summer maintenance to sewage facility.
- v. a list of unauthorized discharges and summary of follow-up action taken;
  - No unauthorized discharge of sewage or solid waste during the period
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - No A&R for this year and but a plan for pumphouse upgrading in next year.
  - No A&R plan for sewage lagoon or solid waste facility during this year
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
  - The Board requested for outstanding Report for Solid Waste operation and maintenance.
  - The Board requested for an assessment of wetland and sewage lagoon as noted insufficient remediation of effluent.
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - Outstanding Annual Reports submitted addressing water uses.
- ix. Updates or revisions to the approved Operation and Maintenance Plans
  - A study for Long Term sustainable operational Plan for Solid Waste facility report carried by Trow engineering is being reported to the Board.

Water Licence: 3BM-REP0409 Page 2 of 3

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

• A plan for pumphouse upgrading in next year by hiring a consultant for study and assessment of current status and requirement for upgrading.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

 Due to acceptance issues in regards to effluent parameters remediation, a plan for hiring a consultant for study and best suited option for sewage waste facility improvement in next year.

Water Licence: 3BM-REP0409 Page 3 of 3

# Appendix:

Reports by DIAND/INAC/AANDC, EC, NWB Repulse Bay Water Licence 3BM-REP0409



P.O. Box 119 GJOA HAVEN, NU X0B 1J0

TEL: (867) 360-6338 FAX: (867) 360-6369

# 

NWB File No: NWB3REP0409

July 8, 2005

Ron Kent, P. Eng., Manager, Environmental Engineering FSC Architects & Planners 4910 53<sup>rd</sup> Street, P.O. Box 1777 Yellowknife, NT X1A 2P4

Email: ron@fsc.ca

Re: Contaminated Soil Clean-up

Dear Mr. Kent:

In response to your letter of May 15, 2005 to Jim Wall regarding contaminated soil clean-up of hydrocarbon contaminated material and temporary storage at the Solid Waste Facility, the proposed activity would require an amendment to the current water licence (No. NWB3REP0409) held by the Hamlet of Repulse Bay.

The minimum requirements would include but not be limited to the following:

- 1. Completed application form <a href="http://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Application%20Forms/">http://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Application%20Forms/</a>
- 2. Completed "Supplementary Information Requirements ("SIR") For Hydrocarbon-Impacted Soil Storage and Landfarm Treatment Facilities" <a href="http://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Questionnaires/">http://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Questionnaires/</a> as applicable to this project which may include detailed engineering description of the proposed activity, including:
  - a. relevant maps and engineering drawings
  - b. on-site conditions
  - c. completed monitoring results and proposed monitoring plan
  - d. mitigation measures proposed to ensure protection of water resources

- e. long term mitigation and implementation plan (Note: Should the Hamlet contemplate design and construction of a lined treatment landfarm facility, a subsequent amendment application would need to be filed with the NWB.)
- 3. Brief summary of the application in both English and Inuktitut
- 4. Application fee of \$30 payable to the Receiver General for Canada

We look forward to receiving the application. If you have any questions about procedures, contact the Manager of Licensing, Phyllis Beaulieu at 867-360-6338 ext 15 or email: <a href="mailto:licensing@nwb.nunavut.ca">licensing@nwb.nunavut.ca</a>. If you have any questions regards technical details of the application once filed, please contact the undersigned.

Sincerely,

#### Original signed by:

Dionne Filiatrault, P. Eng., Manager of Technical Services

Cc: Hamlet of Repulse Bay

INAC Manager of Water Resources, Jim Rogers



P.O. Box 119 GJOA HAVEN, NU X0B 1J0 TEL: (867) 360-6338 FAX: (867) 360-6369 **NWB File No.:** 3BM-REP0409

October 30, 2012

Steve Mapsalak Senior Administrative Officer Hamlet of Repulse Bay P.O. Box 10 Repulse Bay, Nunavut XOC 0H0

Email: <a href="mailto:saorepulse@qiniq.com">saorepulse@qiniq.com</a>

**Subject:** 3BM-REP0409 - Application to Renew Water Licence

Dear Mr. Mapslak:

On March 28, 2011, the Nunavut Water Board ("NWB" or "Board") received an unsigned, partially completed application to renew water licence 3BM-REP0409 (Licence) from the Hamlet of Repulse Bay.

The NWB conducted a preliminary review of the application document and determined that the application is incomplete. In addition, the NWB notes that as indicated in Block 13 of the application form, the overall estimated quantity of water to be used will increase to 89.73 cubic meters per day from the current licenced amount of 24,000 cubic meters per year or 65.75 cubic meters per day. As such, a water licence renewal and amendment is required.

To complete the water licence renewal and amendment application, the NWB requires the following additional information:

- Completed and signed Application for a Water Licence Amendment (see attached form);
- Confirmation in writing from the Nunavut Planning Commission (NPC) confirming that NPC's requirements regarding land use plan conformity have been addressed;
- Confirmation in writing from the Nunavut Impact Review Board (NIRB) confirming that NIRB's requirements regarding development impact assessment have been addressed;
- Compliance assessment and status report including a response to any inspector's reports (see attached *Guide to the Preparation of a Plan for Compliance*);
- Executive summary in English;
- Executive summary in Inuktitut; and
- Application fee of \$30.

The Board will proceed with processing the application upon receipt of the items listed above and an assessment of the completion of the application.

Finally, the Hamlet of Repulse Bay is reminded that its water licence expired on May 31, 2009; however, expiry of the Licence does not relieve the holder from any obligations imposed by the Licence.

Should you have any questions please do not hesitate to contact the NWB office.

Sincerely,

Original signed by:

Phyllis Beaulieu Manager of Licensing

PB/kt/

Cc: Bryan Purdy, GN

Attachment Application for Water Licence Amendment

NWB Draft Guide to the Preparation of a Plan for Compliance

