

## PLAN FOR COMPLIANCE LICENCE NO. NWB3ARC 0810

### ARCTIC BAY PLAN FOR COMPLIANCE

Licence Condition		Status of Compliance	Short Term Plan for Compliance	Schedule for Implementation of Short Term Plan for Compliance (including funding status where applicable to municipal developments)	Long Term Plan for Compliance	Schedule for Implementation of Long Term Plan for Compliance (including funding status where applicable to municipal developments)	Comments from Field Operations Section
<b>Part B: General Conditions</b>							
B - 1	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) Any modification so the "Monitoring Program" is in accordance with Part H, Item 12 ii) the annual quantities in cubic metres of sludge removed from the sewage disposal facility along with the treatment/storage/disposal provided as required in Part H, item 10; iv) the results of sampling and analyses of sewage sludge in accordance with the O&M Manuals referred to in Part F, Item 1 as required in Part H, Item 14; v) An assessment of the geotechnical and geothermal performance of the Wastewater Treatment Facility including an analyses of the results from the thermostat, standpipe and settlement monitoring stations, as required in Part H, Item 15; vi) The monthly and annual quantities in cubic metres of fresh water obtained from all freshwater sources ; viii) a summary of modifications and/or maintenance work carried out on the Water Supply and Waste Disposal Facility.	Not in compliance. According to the Board's acknowledgement letter (June 24, 2010) of receipt of the Hamlet's Water Licence Renewal Application, a 2009 Annual Report has not been submitted.			A 2009 Annual Report has been completed and is on the Nunavut Water Board's FTP Site (inclusive of Part B, Section 1, i-iv). The 2010 Annual Report will be submitted by March 31, 2011.	The 2010 Annual Report will be submitted to the Board by March 31, 2011.	Annual reports for 2006 and 2009 have been submitted. Annual reports for 2005, 2007 and 2008 are still outstanding.
B - 2	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.	Not in compliance. As per 2009 INAC Inspection Report, the Licensee has failed to fully comply with the Monitoring Program. Please see Part H for details and compliance issues.			Please refer to Part H for a long term plan for compliance on individual compliance issues related to the Monitoring Program.	Please see Part H for an implementation schedule for compliance issues related to the Monitoring Program.	As per Inspections reports filed for the last 4 years. Compliance remains an issue. The licensee and the Inspector will be required to set SNP monitoring stations during the 2011 Inspection. A pre season meeting with the Licensee to address this may be required.
B - 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.	Not in compliance. According to the 2009 INAC Report, records of water and waste discharge were not available at the time of the inspection. Based on Hamlet records, water usage records exist. Waste discharge volumes are regarded to be the same as water usage records.			A wastewater discharge measuring device shall be installed. Records of water usage do exist, and will be submitted to the Board.	A wastewater discharge measuring device shall be installed by December 31, 2010. Records of water usage will be submitted as part of the 2010 Annual Report, by March 31st, 2011.	
B - 5	The Licensee shall, within ninety (90) days after the first visit by the Inspector following issuance of this Licence, post the necessary signs 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 the Inspector.	Not in compliance. SNP signs have been posted for some of the current SNP sampling point locations. SNP signs are still required for ARC-6 - ARC-13.			With the assistance of the INAC Inspector, the Licensee will identify and install the remaining SNP signs.	The remaining SNP signs will be installed by August 31st, 2011.	To be addressed as per comments outlined in Section B-2.
B - 8	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.	Not in compliance. According to Board's acknowledgement letter (June, 24, 2010) of receipt of the Hamlet's Water Licence Renewal Application, the Hamlet has not submitted an Executive Summary in English and Inuktitut.			The Licensee will provide an Executive Summary, both in English and Inuktitut, to go along with the submitted Water Licence Renewal Application.	The summaries shall be submitted by December 31, 2010.	No comment.
B - 10	The Licensee shall submit to the Board for approval within the lesser of ninety days or upon the filing of any application in relation to the Licence, a Plan for Compliance that clearly demonstrates the measures this Licensee will undertake, including an implementation schedule, to achieve full compliance with the conditions of this Licence, including the issues raised in the Inspector's Reports.	Not in compliance. According to the 2009 INAC Inspection Report, although a Plan for Compliance has recently been submitted, it does not meet the criteria under the Licence, or address issues reported in previous INAC Inspection Reports.			This document will serve as the Licensee's Plan for Compliance. It will include criteria identified under this Licence and address issues reported in previous INAC Inspection Reports.	This Plan for Compliance shall be submitted to the NWB by October 31, 2010.	No comment.

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B - 11	The Licensee shall for all Plans and Manuals submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan or Manual if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alternation of the Plan.	Not in compliance.			Water Supply: A Water Supply O&M Manual has already been submitted to the NWB. Recently Water Truck fill station is hooked up with the Line Power and Generator is kept there stand by. No Process mechanism has been changed. Sewage Lagoon: A draft O&M manual prepared by TROW was submitted to NWB during renewal of the recently Hamlet expired Water licence. The final O&M document along with the record drawings will be ready once the construction is completed in 2011. TROW will finalize the document satisfying all the contents addressed in item H-14. Solid Waste Management: This is not an engineered facility. No O&M and record drawings are available for this facility. A comprehensive study is being under taken on this facility this summer. Following the recommendation of this study, the project will be substantiated for Capital funding.	Sewage Lagoon: Final O&M document along with record drawings will be ready once the construction is completed in 2011. Solid Waste Management: Comprehensive study is being under taken this summer. Following the recommendation of this study, the project will be substantiated for Capital funding.	Solid Waste Management Facility. Regardless of whether or not this is an engineered facility the Site is operated and maintained by the municipality. A plan is to be put in place to properly maintain and police this site as per the directions provided by the Inspector. This will prevent the build-up of unsecured and leaking oil drums from outside contractors and batteries from unknown origins from being deposited in the WMFacility without the knowledge and consent of the licensee. WWT facility, during the 2010 inspection it was noted that construction on the site has begun and was in fact nearing completion. Plans were requested by the municipality from the GN (CG&S) as well as the contractor ( as relayed to the inspector by the licensee) and were not provided.
B-15	The Licensee shall submit to the Board for review, within thirty days of Licence 3BM-ARC0810 Amend No.1 issuance, all available data generated under Licence NWB3ARC0307 and subsequent renewal 3BM-ARC0810.	Not in compliance. As per 2009 INAC Inspection Report, the Licensee has not met this condition.			The Licensee will submit all available data generated under Licence NWB3ARC0207 and subsequent renewal 3BM-ARC-0810 to the Board.	The Licensee will submit this data to the Board by March 31st, 2011.	No comment.
Part C:	<u>Conditions Applying to Water Use</u>						
C - 2	The annual quantity of water, used for all purposes, shall not exceed 45,000 cubic metres.	In compliance. See Annual Report on NWB Registry. Noted as unknown in the 2009 INAC Inspection Report.					No comment
Part D:	<u>Conditions Applying to Waste Disposal</u>						
D - 3	All effluent discharged from the Sewage Disposal Facilities at Monitoring Program Station number ARC-3 shall meet the following effluent quality standards. Faecal Coliforms: 1x10 <sup>6</sup> CFU/100ml; BOD <sup>5</sup> : 100mg/L; TSS: 120mg/L; Oil and Grease: No visible sheen; pH between 6 and 9	Not in compliance. As per 2009 INAC Inspection Report, sewage treatment continues to be below an acceptable standard.			The Licensee is currently constructing a new Sewage Treatment Facility, however, there are no immediate measures in place to bring effluent quality in compliance with current standards.	Operation of the new Sewage Treatment Facility will commence once the new facility is commissioned.	No comment
D - 5	The Sewage Disposal Facility and Wastewater Treatment Facility shall be maintained and operated to the satisfaction of an Inspector in such a manner as to prevent structural failure.	Not in compliance. As per 2009 INAC Inspection Reports, there are visible areas of erosion and failure of the lagoon wall.			The Licensee is currently constructing a new Sewage Treatment Facility, however, there are no immediate measures in place to bring effluent quality in compliance with current standards.	Operation of the new sewage treatment facility will commence once the new facility is commissioned.	No comment

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D - 7	The Licensee shall segregate and securely store all hazardous materials and/or hazardous waste within the Solid Waste Disposal Facility in a manner as to prevent the deposits of deleterious substances into any water until such a time as proper disposal arrangements are made.	Not in compliance. As per 2009 INAC Inspection Report, hazardous materials are uncontained, unsegregated, and unfenced.			The Licensee will develop a hazardous waste management plan. The Plan will be submitted to the NWB for approval as part of the Operation and Maintenance Manual. The Licensee will ensure that the necessary infrastructure is in place to allow for the proper implementation of the hazardous waste management plan.	Improvements to the Hamlet's existing hazardous waste management system, as described in long term compliance plan, will be made by August 31st, 2011. The hazardous waste management plan will be submitted to be Board as part of the O&M Manual by August 31st, 2011.	Delays in securing and safely storing hazardous wastes and waste oils etc within the Municipality pending the design and development of a Hazardous waste management Plan are not acceptable. Interim measure to address the Storage of said waste oil and batteries in the short to mid terms are to be implemented as required by the Inspector.
D - 8	The Licensee shall implement measures to control wind blown litter at the Solid Waste Disposal Facility.	Not in compliance. As per 2009 INAC Inspection Report, the solid waste site is not properly fenced.			The Licensee will install proper fencing around the solid waste site to contain windblown waste debris.	Fencing will be installed by August 31st, 2011.	No comment
D - 9	The Licensee shall submit to the Board for review within thirty days of the issuance of the Licence amendment, a report identifying each Final Discharge Point to the existing Sewage Disposal Facility. The report shall at least include: a) Plans, specifications, geographic coordinates and a general description of each Final Discharge Point; and, b) a description of how each Final Discharge Point is designed and maintained.	Not in compliance. As per 2009 INAC Inspection Report, a Final Discharge Point has not been identified.			The Licensee will identify Final Discharge Point(s) to the existing Sewage Disposal Facility and submit a Report to the Board including a) Plans, specifications, geographic coordinates and a general description of each Final Discharge Point; and, b) a description of how each Final Discharge Point is designed and maintained.	The Report will be submitted to the Board by August 31st, 2011.	TBD by Inspector and Licensee during the 2011 inspection period or during pre-inspection visit.
Part E:	<u>Conditions Applying to Modification and Construction</u>						
E-10	The Licensee shall submit to the Board for approval in writing, prior to commencing construction or procurement of construction materials from the quarry, a Spill Contingency Plan that specifically addresses the quarry site operations and existing facilities. This Plan is to be incorporated into the Operations and Maintenance Manual referred to in Part F Item 1.	Not in compliance. As per 2009 INAC Inspection Report, a Spill Contingency Plan has not been submitted.			The Licensee shall develop a Spill Contingency Plan as part of the Operations and Maintenance Manual referred to in Part F, Item 1. The Plan will address the quarry site operations and existing facilities.	The Spill Contingency Plan will be submitted to the Board as part of the O&M Manual by August 31st, 2011.	No comment
Part F:	<u>Conditions Applying to Operation and Maintenance</u>						
F - 1	The Licensee shall submit to the Board for approval, within ninety (90) days following issuance of the Licence, an Operation and Maintenance (O&M) Manual for the Sewage Disposal Facility and Solid Waste Disposal Facility, prepared where appropriate in accordance with the "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996". The Manual shall take into consideration the comments received during the application review process, as well as Inspector Reports, and shall contain the following plans: a) Water Supply Facilities Operation and Maintenance (O&M) Plan; b) Solid Waste Facility Operation and Maintenance Plan (O&M) Plan; c) Sewage Operation and Maintenance Plan for the existing Sewage Disposal Facility and the new Wastewater Treatment Facility d) Sewage Sludge and Management Plan; e) Hazardous Waste Management Plan f) Spill Contingency Plan including a Spill Response Plan for aggregate deposits g) Monitoring Program Quality Assurance/Quality Control Plan including diagram that h) Instrumentation Monitoring and Surveillance Plan (This Plan is due within 30 days of	Not in compliance. According to the 2009 INAC Inspection Report the Licensee has not submitted a satisfactory O&M Manual. Missing information includes but is not limited to the following: signed and stamped drawings of existing infrastructure, actual water usage and waste generation data, operations and technical information pertaining to the existing Water Supply facilities, operations and technical information pertaining to the existing Solid Waste Management Area.			As per the NWB's request, the Licensee will submit an O&M Manual for all existing and new facilities including the water supply facility, sewage and solid waste facilities, hazardous waste management, sewage sludge management, spill contingency plan, and monitoring program quality assurance/quality control plan and instrumentation monitoring and surveillance plan.	The O&M Manual(s) for the Sewage Disposal Facility and Solid Waste Disposal Facility will be submitted to the Board by August 31st, 2011.	No comment
F - 2	The Licensee shall review the Manuals and Plans referred to in this Part as required by changes in operation and/or technology and modify accordingly. Revisions are to be submitted in the form of an Addendum to be included with the Annual Report, unless directed otherwise by an Inspector.	Not in compliance. As per 2009 INAC Inspection Report, updated O&M Manuals have not been submitted yet.			Please refer to Part F, Section 1, for a long term plan for compliance.	Please refer to Part F, Section 1, for an implementation plan.	No comment

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F - 3	An inspection of all engineered facilities related to the management of water and waste shall be carried out annually in July, by a Geotechnical Engineer. The inspection shall be conducted in accordance with the Canadian Dam Safety Guidelines where applicable and shall include the decommissioned Sewage Disposal Facility. The engineer's report shall be submitted to the Board within sixty days of the inspection, including a covering letter from the Licensee outlining an implementation plan addressing each of the Engineer's recommendations.	Not in compliance. As per the 2008 INAC Inspection Report, geotechnical inspections have not been carried out.			The Licensee will ensure that a geotechnical inspection of all engineered facilities related to the management of water and waste is completed in July, on an annual basis.	A Geotechnical Engineer's Report will be submitted to the NWB in July of 2011.	No comment
Part G:	<u>Conditions Applying to Abandonment and Restoration</u>						
G-2	The Licensee shall submit to the Board for approval in writing, within ninety days of Licence issuance, a detailed Final Abandonment and Restoration Plan for the existing Sewage Disposal Facility. The Plan shall incorporate, where applicable, the appropriate sections as described in Part G, Item 1 and address intervenor comments raised during the review process, including specifications and purpose of cover materials over sludge remaining following decommissioning of the Sewage Disposal Facility.	Not in compliance. According to NWB's acknowledgement letter (June 24, 2010) of receipt of water licence renewal application, a detailed Final Abandonment and Restoration Plan for the existing Sewage Disposal Facility has to be submitted.			The Licensee will complete a detailed Final Abandonment and Restoration Plan for the existing Sewage Disposal Facility.	The Hamlet will complete a detailed Final Abandonment and Restoration Plan by December 31st, 2010.	No comment
Part H:	<u>Conditions Applying to the Monitoring Program</u>						
H - 1	The Licensee shall maintain Monitoring Stations at the following locations: ARC-1: raw water supply at Marcol Lake ARC-2: raw sewage from pump-out truck ARC-3: effluent discharged from the Final Discharge Point of the Sewage Disposal Facilities ARC-4: Final Discharge Point of the existing Sewage Disposal Facility's Wetland Treatment Area ARC-5: ocean water 5 meters from point where effluent enters the ocean from existing Sewage Disposal Facility ARC-6: Run-off from the solid waste disposal area ARC-7: Run-off from Quarry Site ARC-8: Effluent discharged from the Final Discharge Point of the Wastewater Treatment Facility (at the sewage lagoon pump) ARC-9: Discharge Point of the Wastewater Treatment Facility's Vegetated Filter Strip Wetland Area ARC-10: Ocean water five metres from point where effluent enters the ocean from wastewater Treatment Facility ARC-11: Thermistors in accordance with approved Instrumentation Monitoring and Surveillance Plan as required in Part H, Item 16 ARC-12: Standpipes in accordance with approved Instrumentation Monitoring and Surveillance Plan as required in Part H, Item 16 ARC-13: Settlement station in accordance with approved Instrumentation Monitoring and Surveillance Plan as required in Part H, Item 16	Not in compliance. As per 2009 INAC Inspection Report, the Licensee is not completing the required sampling.			The Licensee will begin a sampling program in the Spring of 2011. The results of the sampling analyses will be reported to the Board as part of the 2011 Annual Report.	The Licensee will commence the sampling program in the Spring of 2011, and the results of sampling analyses will be submitted to the Board by March 31st, 2012.	As per B-2
H - 2	The Licensee shall sample monthly at Monitoring station ARC-3, ARC-4, ARC-5, ARC-8, ARCK-9, ARC-10 three times annually (once at the onset of decant; once during decant; and once at the end of decant). Samples shall be analyzed from the following parameters: (please refer to the Water Licence for a list of parameters)	Not in compliance. As per 2009 INAC Inspection Report, the Licensee is not completing the required sampling.			The Licensee will begin a sampling program in the Spring of 2011. Samples will be taken monthly at station ARC-3 to ARC-5, and ARC-8 to ARC-10, three times annually, and analyzed for parameters required by the Licence.	The sampling program will be in Spring of 2011, and results will be reported to the Board in the 2011 Annual Report, to be submitted by March 31st, 2012.	As per B-2
H - 3	The Licensee shall sample at Monitoring Program Station ARC-6 annually during periods of runoff or seepage. Samples shall be analyzed for the following parameters:(see Water Licence)	Not in compliance. As per 2009 INAC Inspection Report, the Licensee is not completing the required sampling.			The Licensee will begin the sampling program in the Spring of 2011. Samples will be taken annually at ARC-6, during periods of runoff or seepage, and analyzed for parameters required by the Licence.	The sampling program will be in Spring of 2011, and results will be reported to the Board in the 2011 Annual Report, to be submitted by March 31st, 2012.	No Comment

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H - 8	The Licensee shall measure and record annual quantities of sludge removed from the Sewage Disposal Facility and Wastewater Treatment Facility along with the treatment/storage/disposal provided.	Not in compliance. As per 2009 INAC Inspection Report, the Licensee has not developed a Sludge Management Plan. There are no records of sludge removal.			The Licensee will submit a Sludge Management Plan as part of the O&M Manual. Any sludge that is removed from the Sewage Disposal Facilities will be measured, recorded, and reported to the Board as part of Annual Report submissions.	A Sludge Management Plan will be submitted as part of the O&M Manual (s) by August 31st, 2011. Sludge removal will be documented in the 2011 Annual Report.	No Comment
H - 9	The Licensee shall include all of the data and information required by the Monitoring Program as well as an indication of wastewater treatment levels upstream and downstream of the Vegetated Filter Strip Wetland Area in the Licensee's annual report, as required per Part B -1, or as requested by an Inspector.	Not in compliance. As per 2009 INAC Inspection Report, the Licensee is not completing the required sampling.			The Licensee will begin a sampling program in the Spring of 2011. All sampling data analyses will be reported as part of the 2011 Annual Report.	All sampling data analyses will be reported as part of the 2011 Annual Report, to be submitted by March 31st, 2012.	No Comment
H - 11	The Licensee shall submit to the Board upon approval by an Analyst, a Quality Assurance/Quality Control Plan, required under Part F, Item 1. The Plan shall include to date sampling methods to all applicable standards, acceptable to an accredited laboratory as required by Part H, Item 8 and Part H, Item 9. The Plan shall include a covering letter from the accredited laboratory and Analyst, confirming acceptance of the Plan for analyses to be performed under this Licence.	Not in compliance. As per 2009 INAC Inspection Report, a QA/QC Plan has not been submitted.			The Hamlet will submit a QA/QC Plan as part of the Operation and Maintenance Manual for the Solid Waste and Sewage Treatment Facility.	The QA/QC Plan will be submitted to as part of the O&M Manual to the Board by August 31st, 2011.	No Comment
H - 12	The Licensee shall sample and analyze sludge in accordance with the approved Operations and Maintenance Plan referred to in Part F, Item 1. The results shall be reported within the Annual Report as per Part B, Item 1	Not in compliance. The Licensee does not have an approved Operations & Maintenance Plan.			Please refer to Part F, Item 1, and Part H, Item 8.	Please refer to Part F, Item 1, and Part H, Item 8.	No Comment
H - 14	The Licensee shall submit to the Board for approval in writing, within thirty days of issuance of this Licence Amendment, a detailed Instrumentation Monitoring and Surveillance Plan for inclusion in the O&M Manual, required under Part F, Item 1. This Plan shall include: i. Details of the proposed instrumentation plan, the frequency of measurements and trigger values or observations for remedial action; ii. A review of geothermal monitoring plans including the number of thermistors to be installed, the location of thermistor installations, the installation of thermistors within the key trench, the depth of thermistor strings in subgrade soils, justification for the final chosen depth of thermistor strings, and the final detailed design of thermistor strings, taking into consideration review comments; and iii. Details of settlement monitoring at the upstream and downstream toes of the berms.	Not in compliance. As per 2009 INAC Inspection Report, a detailed Instrumentation Monitoring and Surveillance Plan has not been developed.			Please refer to Part B, Item 11	Please refer to Part B, Item 11	No Comment
H - 15	The Licensee shall confirm the locations of GPS coordinates for all monitoring stations referred to in part H Item 1 with an Inspector.	Not in compliance.			The Licensee will confirm the locations and GPS coordinates for all monitoring stations referred to in Part H, Item 1.	This work will be completed during the Inspector's next visit to Arctic Bay (expected by August 31st, 2010)	As per B-2
H - 16	The Licensee shall measure and record in cubic metres, the monthly and annual quantities of effluent pumped from Monitoring Program Stations ARC-3 and ARC-8.	Not in compliance. As per the 2009 INAC Inspection Report, the Licensee has not measured effluent pumped from ARC-3. ARC-8 is part of the new sewage treatment facility, which is currently under construction.			The Licensee will install an effluent measuring device and begin to measure monthly and annual quantities of effluent pumped from ARC-3 and ARC-8.	A flow measuring device will be installed in June of 2011. Monthly and annual quantities of effluent pumped from ARC3 and ARC-8 will be reported to the NWB in the 2011 Annual Report.	No Comment