Operation and Maintenance (O&M) Plan

Sewage Treatment Facility

Hamlet of Rankin Inlet, Nunavut

Water Licence No. 3AM-GRA1015

Updated by:

Government of Nunavut

Community and Government Services

PO Box 490 Rankin Inlet, Nunavut

X0C 0G0

Date: September 2015

Updated: January 2016

Document Management

	Description	Prepared by	Date
1	*Updated* Sewage Treatment Facility O&M Plan: added *Section 3.2.2 Hazardous Waste Division*	GN-CGS	January 2016
2	*Updated* Sewage Treatment Facility O&M Plan	GN-CGS	September 2015
3	Revised Sewage Treatment Facility O&M Plan	Nuna Burnside	April 2010
4	Sewage Treatment Facility O&M Plan	Nuna Burnside	December 2008
5			
6			

Executive Summary

This Operation and Maintenance Plan for the Sewage Treatment Facility abides to regulations set forth in Nunavut Water Board (NWB) Water Licence No. 3AM-GRA1015, held by the Government of Nunavut, Department of Community and Government Services (GN-CGS). The licence was issued on June 9, 2010 and will expire November 27, 2015.

An Operation and Maintenance (O&M) Plan for the Sewage Treatment Facility dated December 2008 was prepared by Nuna Burnside Engineering and Environmental Ltd (Nuna Burnside), as required by the original licence and in support of the application for the licence renewal. The April 2010 update of the Plan addressed comments provided by review agencies during the licence renewal application process.

The September 2015 update of the Plan was submitted in support of the current licence renewal. As per the Water Licence, this document is to be reviewed and updated annually, if necessary.

The January 2016 update includes new *Section 3.2.2: Hazardous Waste Diversion*, as rquested by Environment Canada (EC).

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1. Introduction

1.1 Background

The Hamlet of Rankin Inlet is located on the west coast of Hudson Bay, at 62°49'N, 92°05'W. It is 96 air-km southwest of Chesterfield Inlet and 1088 air-km east of Yellowknife. The Hamlet has grown substantially in the past 10 years, with a 2015 population of approximately 2864 residents. Economic activities now include government, commercial fishing, transportation/communications, carvings/handicrafts, trapping, hunting, and tourism.

Rankin Inlet is affected by arctic air masses, and experiences a maritime Arctic climate characterized by short cool summers, and long cold winters. The Rankin Inlet area receives an average of 18.1 cm of rainfall and 107 cm of snowfall annually. July mean high and low temperatures are 14.9°C and 5°C, respectively. January mean high and low temperatures are -28.3°C and -35.5°C, respectively. Winds are generally north-west.

The Government of Nunavut, Department of Community and Government Services (GN-CGS) provides water supply and sewage disposal services for the Hamlet of Rankin Inlet. Water and wastewater systems include the following facilities and services:

- A water intake plant, which draws water from Nipissar Lake and provides treatment by chlorination;
- Seasonal resupply pipeline from Char River to Nipissar Lake; and
- A waste water treatment plant, which provides primary treatment of sewage with use of a mechanical screen and a Monster Auger.

Solid waste collection for the residents, businesses and institutions are provided by the Hamlet of Rankin Inlet. The Solid Waste Disposal facility, which includes a bulky metals deposit area and a waste oil and liquid waste storage area is authorized under a separate Water Licence held by the Hamlet of Rankin Inlet. Refer to Licence No. 3BM-RAN1214 for more information.

Site locations can be found in Appendix A.

1.2 Sewage Generation

The volume of sewage wastewater corresponds to the annual water use of the Hamlet. Using calculated water use projections, the annual volume of waste water in 2015 is 656,934 m^3. The projected volume of sewage in 2035 is 920,566 m^3, and will increase as population increases. The following table depicts projected volumes of sewage generation for Rankin Inlet:

Year	Population	Annual Sewage Generation (m^3/year)
2015	2864	656,934.24
2016	2908	669,117.61
2017	2953	681,610.35
2018	2993	692,742.17
2019	3046	707,530.62
2020	3093	720,681.30
2021	3139	733,584.81
2022	3185	746,520.10
2023	3228	758,640.13
2024	3274	771,635.64
2025	3318	784,094.65
2026	3365	797,433.53
2027	3411	810,518.58
2028	3470	827,344.35
2029	3520	841,640.54
2030	3566	854,822.63
2031	3615	868,895.20
2032	3664	882,999.09
2033	3710	896,267.60
2034	3754	908,984.40
2035	3794	920,566.24

1.3 Health and Safety

Health and safety of worker and the public is the first priority while operating the Sewage Treatment Facility. The requirements of the Nunavut Safety Act must be followed at all times. All actions and operations must be undertaken with safety as the first priority.

It should be noted, this document was prepared to meet the requirements of the NWB and is not considered a Health and Safety Plan.

1.4 Training

Staff training is an important aspect of the operation of a Sewage Treatment Facility. Staff must be adequately trained to follow this O&M Plan and operate the facility. This O&M Plan is dependent on sufficient site specific training to ensure staff are appropriately trained to operate the facility.

1.5 Sewage Sludge and Waste Disposal

Sewage sludge and other waste materials generated by the Sewage Treatment Facility are accepted by the Hamlet of Rankin Inlet at the municipal Solid Waste Site. Sewage sludge and non-hazardous solid wastes are disposed of at the Solid Waste Site, and any waste oil or hazardous materials (batteries, etc.) are also handled by the Hamlet as per the signed MOU between the Hamlet and CGS (Appendix H).

2. Upgrades and Repairs

2.1 Sewage Outfall Repair – 2012 to 2013

Foreshore Technologies Incorporated (FTI) was contracted to locate any damaged sections of the sewage outfall pipe, record their GPS coordinates, and locate the diffuser and record its coordinates. They were contracted again in 2013 to replace the diffuser and install a new connecting pipe at the end of the sewage outfall. These repairs were successfully executed and did not affect the operation or maintenance of the Sewage Treatment Facility.

2.2 Monster Auger Installation – 2012

Prior to the installation of the Monster Auger system, a rotator drum was in place at the Sewage Treatment Facility in order to break up solid materials. The single rotator drum has been replaced by two monster augers: one for constant use, and an alternative auger in case the main auger malfunctions or during regular maintenance. The augers contain a bagging system that collects solid materials, much like the old rotator drum. The solid materials collected in the bag are then disposed of in the Solid Waste Site. Further instructions on the replacement of the bagging system can be found in Appendix F.

3. Operation and Maintenance of the Sewage Treatment Facility

3.1 Overview

The Sewage Treatment Facility of Rankin Inlet, operated by the Government of Nunavut, Department of Community and Government Services (GN-CGS), consists of two components:

- The Sewage Collection System – utilidor and trucked;
- The Waste Water Treatment Plant (WWTP).

In general all components of the Waste Water Treatment Plant work to:

- Collect and treat all sewage from the community including the Nuvuk Subdivision;
- Discharge that sewage to the Prairie Bay ocean discharge through the outfall line.

Figure 2 illustrates the location of the Wastewater treatment plant and the sewage discharge location in Prairie Bay.

3.2 Sewage Collection System

There are two systems of sewage collection in Rankin Inlet: approximately 99% of the population has piped sewage service while the remainder receives trucked pump out service.

Trucked sewage is pumped out from few buildings into the Hamlet's sewage truck. The truck discharges the sewage into the piped system through the Johnson Cove Lift Station.

The rest of the community is connected to the sewage treatment system by the sewer system. The sewage mains are 150 mm or 200 mm diameter insulated shallow-buried HDPE pipes. They are usually installed in the same trenches as the water mains to save installation costs. Sewage from buildings enters the mains through 100 mm diameter HDPE service connections.

3.2.1 Sewage Collection System Operational Procedures

The following operational procedures shall be carried out by the GN-CGS:

- Monitoring and inspections will occur as outlined in the NWB licence and described in this O&M Plan; and
- In the event of an accident, spill of sewage or sewage line breakage, the most recent *Spill Contingency Plan for Water Supply and Sewage Treatment Facilities, Rankin Inlet* (separate document) shall be implemented.

3.2.2 Hazardous Waste Division

The Wastewater Treatment Plant is designed to receive municipal waste only. The discharge of other liquid wastes to the utilidor system, including hazardous wastes, is prohibited. Hazardous waste is collected and stored by the Hamlet of Rankin Inlet within their Solid Waste Site. The Hamlet of Rankin Inlet holds a separate Water Licence, 3BM-RAN1520, for their Solid Waste Site.

3.3 Periodic and Seasonal Maintenance Procedures

The following procedures shall be undertaken by the staff of the GN-CGS during periodic and seasonal maintenance operations at the Sewage Treatment Facility:

- The sewer mains should be monitored during the winter months to identify freezing or breakage due to inadequate flow, insufficient slope, back grading, insufficient cover, damaged insulation, or freezing between the pipe and insulation;
- Winter bleeding from the water mains into the sewer mains can be used to mitigate some of the above problems;
- The system should be inspected each summer with a sewer camera to identify sections of piping in poor condition that need repair or replacement;
- The roadway and truck pad outside the facility shall be maintained by snow clearing in the winter and surface grading in the summer, with any defects repaired as necessary;
- Site warning signage, which identifies the sewage outfall, shall be inspected weekly, and repaired or replaced as necessary;
- The outfall pipe shall be inspected during the summer for erosion, settlement, or blockage, and repaired as necessary;
- Facility generators and associated fuel storage shall be monitored daily;
- Ice in the area of the discharge pipe should be flagged to warn travellers of potentially poor ice conditions. Residents should be aware that the area thaws earlier and freezes later;
- Monster Auger brushes are to be checked on weekly basis for normal wear;
- Monster Auger brushes are to be replaced every two to three years depending on the type of effluent entering the system. Under extreme condition with heavy types of effluent, the brushes could last as short as 18 months and will need to be replaced accordingly;
- Lubrication of motor gear box of the Monster Auger shall be checked on a regular basis;
- After three months of operation, the cutter blades on the grinder pump of the Monster Auger must be checked (the motor is on top of the grinder pump grinder);
- The grinder is required to be pulled annually for maintenance;
- The Monster Auger discharge bag must be replaced once full.

Maintenance report forms will be kept on site.

3.4 Waste Water Treatment Plant (WWTP) Design

The WWTP is equipped with three ports for accommodation of screening equipment: the first port is equipped with the lead mechanical screening plant accommodating all flows; the second port has been left vacant for future expansion; and the third port is equipped with a static bar screen to accept overflows.

The WWTP is designed to accommodate flows from the following sources:

- Johnston Cove Lift Station, at 40 L/s peak flow;
- Nuvuk Subdivision Lift Station, at 25 L/s peak flow; and
- Internal plant flows, with negligible contribution.

The upstream Johnston Cove and Nuvuk Lift Stations are designed to handle 100% of the peak flows utilizing a single pump and not allow overflows. That is, all flows entering the stations could possibly utilize two pumps, thereby increasing their flows to approximately 125% of peak.

The WWTP is designed to reasonably handle all incoming flows and not discharge untreated effluent. The range of flows to the WWTP is from a low of 25 L/s, with only Nuvuk peak flows entering the system, to 85 L/s, with 65 L/s being the designated peak flow. The 85 L/s would result from both lift stations experiencing above peak flows simultaneously (that is, two pumps at each lift station operating). The likelihood of both lift stations discharging above peak flows simultaneously (the travel time to the plant is different for each lift station) is minimal, as the lead pump in each lift station is designed to handle peak flows. To design the plant to handle two pumps each from the lift station would require the screens to be largely oversized and unnecessary.

Effluent from the treatment plant flows through a 300 mm diameter buried insulated HDPE pipe to the outfall, which was completed in 1995. The waste eventually reaches a point near the bottom of Prairie Bay.

To protect against ice scour, the top of the filled-in trench was armoured with rock for the last 35 m of the land section and all of the submersible section. To aid dispersal and mixing, the three steel bell mouths of the diffuser, set 90° apart, divides the effluent into three separate streams as it enters the receiving waters.

3.4.1 Waste Water Treatment Plant Operation Procedures

The following operational procedures shall be carried out by GN-CGS:

- Operation and inspections will occur as outlined in the NWB licence and as described in this O&M Plan;

- Discharge monitoring will be in accordance with the Hamlet's most recent *Environmental Monitoring Program and Quality Assurance/Quality Control Plan* (separate document);
- Monthly wastewater volumes discharged from the Sewage Treatment Facility shall be reported;
- Monthly solid sewage sludge volumes taken to the landfill shall be recorded on the recording form attached in Appendix E;
- In the event of an accident, a spill of sewage or petroleum products or a fire during sewage treatment operations, the most recent *Spill Contingency Plan for Water Supply and Sewage Treatment Facilities, Rankin Inlet* (separate document) shall be implemented.

3.5 Disruption of Service

Service disruption has occurred periodically due to mechanical failures in the system. Short term service disruptions have occurred for maintenance.

Disruption of service to the lift station pumps can be handled by trucking and use of temporary portable pumps. Disruptions at the plant can result in direct discharge of effluent. There are no options to treat sewage should the treatment facility suffer from a mechanical failure. In this case, the discharge is bypassed directly to the ocean.

Should the facility be partially or totally disrupted, the only mitigation action that can be taken is to limit the length of time of direct discharge to the marine environment. Based on past observations, direct discharge for a limited period (i.e. a week) is not expected to cause a significant impact to human health or the environment. In the event that a bypass is occurring, the Aboriginal Affairs and Northern Development Canada (AANDC) Inspector shall be notified.

4. Sewage Treatment Facility Monitoring Program

All water sampling collected by the Government of Nunavut, Department of Community and Government Services (GN-CGS) shall be in accordance with the *Environmental Monitoring Program and Quality Assurance/Quality Control (QA/QC) Plan* (separate document).

4.1.Water Licence Requirements

As outlined in the Water Licence, regular monitoring of the quantity and quality of sewage discharging from the treatment system is required.

As part of the general conditions, the licence requires that monthly and annual quantities in cubic metres of waste discharged from the facility be recorded and reported in the Annual Reports. It also requires that meters, recorders, or other such methods to record the volume of waste discharged to be installed, operated and maintained. The Licensee must maintain the Sewage Treatment Facilities to the satisfaction of the Inspector.

A monitoring point (GRA-2) was established at the Point of Discharge in Hudson Bay (within 20 m of the discharge pipe outfall approximately 5 m below surface). Sampling does not take place at this station.

Another monitoring point, GRA-3, was established at the discharge point of the Sewage Treatment Facility. Quarterly sampling of discharged water shall be collected. Details are included in the *Environmental Monitoring Program and Quality Assurance/Quality Control (QA/QC) Plan*. Annual quantities of sewage solids removed from the facility should be measured and recorded.

5. Emergency Response and Contingencies

In the event of an emergency, guidance regarding containment and site emergency response can be obtained from the following sources:

Table 1: Emergency Contacts

Contact	Location	Telephone Number	Fax Number
AANDC Manager of Field Operations	Iqaluit	(867) 975-4295	(867) 979-46445
Hamlet of Rankin Inlet – SAO	Rankin Inlet	(867) 645-2895	(867) 645-2146
Government of Nunavut Regional Engineer	Rankin Inlet	(867) 645-8176	(867) 645-8141
Environment Canada Inspector	Iqaluit	(867) 975-4644 or 975-4984	N/A
Fire Department	Rankin Inlet	(867) 645-2598	N/A
RCMP Detachment	Rankin Inlet	(867) 645-0123	N/A
Community Health Centre	Rankin Inlet	(867) 645-8300	N/A

Contingency plans are designed to provide site staff with direction and options when there is an unexpected event or accident.

The *Spill Contingency Plan for Water Supply and Sewage Treatment Facilities, Rankin Inlet* (separate document) provides procedures and direction in the case of a spill or accident.

As outlined in the Spill Contingency Plan, the health and safety of workers and the public are the first priority.

6. Reporting

Part B of NWB Licence No. 3AM-GRA1015 includes the requirement to file an Annual Report with the NWB no later than March 31st of the next calendar year. The report shall include:

a) Tabular summaries of all data generated under the Monitoring Program;
b) Monthly and annual quantities of freshwater obtained from all sources;
c) Monthly and annual quantities of wastes removed for disposal from licenced facilities;
d) The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5;
e) A summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures;
f) A list of unauthorized discharges and summary of follow-up action taken;
g) Any revisions to approved Plans and Manuals as required by Part B, item 11, submitted in the form of an Addendum;
h) A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
i) A summary of any studies, reports and plans (i.e. 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; and
j) Any other details on water use or waste disposal requested by the Board by November 1st of the reporting year.

The Annual Report will be provided to the NWB using the municipal report form. In addition to these forms, there would be sampling information and analytical data collected. The *Environmental Monitoring Program and Quality Assurance/Quality Control (QA/QC) Plan* (separate documents) outlines sample collection and analytical data handling protocols. Using the forms and following the procedures provided herein should make submitting the annual monitoring report relatively straightforward.

The GN-CGS is also required to submit a quarterly report for all tests and monitoring conducted during each calendar quarter, not later than forty five (45) days following the quarter being reported. The report shall include:

a) Tabular summaries of all data generated under the Monitoring Program;
b) Monthly quantities of freshwater obtained from all sources;
c) Quarterly sampling results from Monitoring Program Station GRA-3; and
d) The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5.

7. References

Government of Nunavut. 2014. *Nunavut Bureau of Statistics, Population Estimates.* http://www.stats.gov.nu.ca/en/Population%20estimate.aspx.

Nuna Burnside. 2011. *Minutes of Meeting: Rankin Inlet Sewage Treatment Plant Upgrade – Monster Auger Maintenance*.

Nuna Burnside. 2011. *Sewage Treatment Facility, Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet.* Rankin Inlet, NU. File No. N-O 14850.

Department of Community and Government Services. 2010. *Memorandum of Understanding, Motion #111-10*. Government of Nunavut. Rankin Inlet, NU.

Foreshore Technologies Inc. 2012. *Sewage Outfall Repair, Outfall Pipe & Diffuser*. Rankin Inlet, NU. Project No. P-3556.

Appendix A: Figures

Map Reference:
Map Art Publishing

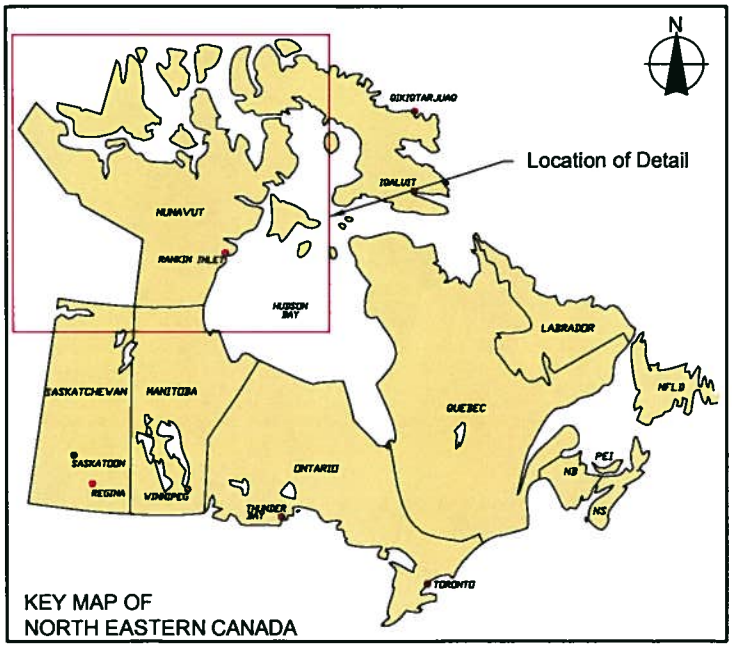

FIGURE 1 - SITE LOCATION MAP

HAMLET OF RANKIN INLET
HAMLET OF RANKIN INLET, NUNAVUT

ENVIRONMENTAL EMERGENCY CONTINGENCY PLAN

December 2008
Project Number: N-O14850

Prepared by: C. Sheppard

Verified by: J. Walls

BURNSIDE

N-O14850 ENVIRONMENTAL EMERGENCY - HAMLET SL.dwg

Plot Time: Dec 08, 2008 - 2:11pm

Figure 2: Map of Facilities

Appendix B: Nunavut Water Board Licence No. 3AM-GRA1015

P.O. BOX 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No: 3AM-GRA1015

June 14, 2010

Honorable Chuck Strahl, P.C., M.P.
Minister of Indian Affairs & Northern Development
and Federal Interlocutor for Metis and Non-Status Indians
21st Floor, 10 Wellington
Gatineau, Quebec K1A 0H4

By Courier, Email and Regular Mail

Subject: Licence 3AM-GRA1015 – Government of Nunavut, Community and Government Services; Rankin Inlet Water Use, Nunavut;

Dear Minister:

Please find enclosed, Licence 3AM-GRA1015, duly issued by the Nunavut Water Board (NWB). This Licence authorizes the Government of Nunavut, Department of Community and Government Services, to the use of water for a Municipal Undertaking.

In accordance with section 56 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, the Licence requires your approval and as such the NWB submits the attached Decision and Licence for your consideration.

Should you have any questions or require clarification on the above or wish to discuss further, please contact the undersigned in writing.

Sincerely,

Thomas Kabloona
Nunavut Water Board
Chair

C.c. Kivalliq Distribution List
NWB Public Registry

WATER LICENCE NO: 3AM-GRA1015

For

Government of Nunavut
Department of
Community and Government Services

Hamlet of Rankin Inlet, Nunavut

NUNAVUT WATER BOARD

LICENCE NO: 3AM-GRA1015

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NUNAVUT WATER BOARD

WATER LICENCE No. 3AM-GRA1015

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

GOVERNMENT OF NUNAVUT, DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES

(Licensee)

P.O. BAG 002, GOVERNMENT OF NUNAVUT
RANKIN INLET, NUNAVUT X0C 0G0

(Mailing Address)

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

Licence Number/Type:	3AM-GRA1015 TYPE "A"
Water Management Area:	NUNAVUT 06
Location:	RANKIN INLET, KIVALLIQ REGION, NUNAVUT LATITUDE 62°49'24"N, LONGITUDE 92°06'53"W
Classification:	MUNICIPAL UNDERTAKING
Purpose:	DIRECT USE OF WATER
Quantity of Water use not to Exceed:	EIGHT HUNDRED AND FIFTY THOUSAND (850,000) CUBIC METRES PER ANNUM
Date of Licence Issuance:	JUNE 09, 2010
Expiry of Licence:	MAY 31, 2015

This Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Thomas Kabloona,
Nunavut Water Board
Chair

APPROVED BY:

Minister of Indian and Northern Affairs Canada

DATE LICENCE APPROVED:

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. SCOPE

a. This Licence allows for the use of Water and operation of the Water Supply Facilities, Utilidor and Sewage Treatment Facility by the Government of Nunavut, Department of Community and Government Services for a municipal undertaking at the Hamlet of Rankin Inlet, Nunavut (Latitude 62°49'24"N and Longitude 92°06'53"W);

b. This Licence is issued subject to 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 Act, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such Waste may be so deposited, this Licence shall be deemed 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 all applicable legislation, guidelines and directives.

2. DEFINITIONS

In this Licence: 3AM-GRA1015

"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;

"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 Board;

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

"**Calendar Quarter**" means divisions of the calendar year, comprised of three month intervals from January to December, inclusive (January – March, April – June, July – September and October – December);

"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;

"Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;

"Hazardous Waste" means waste classified as "hazardous" by Nunavut Territorial or Federal legislation, or as "dangerous goods" under the *Transportation of Dangerous Goods Act*;

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

"Licensed Facilities" means the Water Supply Facilities, Utilidor and Sewage Treatment Facility;

"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 undertaking;

"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 Treatment Facility**" means the facility designed to receive sewage from the Utilidor, designed to provide primary treatment via a rotating drum screen, and discharge Sewage to the marine environment in Prairie Bay as described in the Application for a Water Licence dated March 19, 2009;

"**Utilidor**" means the piped distribution system designed to transport treated water from the Water Supply Facilities to structures and dwellings in Rankin Inlet and the piped collection system designed to collect sewage from structures and dwellings and transport to the Sewage Treatment Facility, as described in the Application for a Water Licence dated March 19, 2009;

"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;

"Water" means water as defined in section 4 of the Act;

"Water Supply Facilities" means the areas and associated infrastructure at Nipissar Lake including the Lake, intake lines, pumphouse, underground pipeline and Williamson Lake water tank, as described in the Application for Water Licence dated March 19, 2009;

3. ENFORCEMENT

a. Failure to comply with this Licence will be a violation of the Act, subjecting the Licensee to the enforcement measures and the penalties provided for in the Act.

b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the Act.

c. For the purpose of enforcing this Licence and with respect to the use of Water and deposit or Discharge of Waste by the Licensee, Inspectors appointed under the Act, hold all powers, privileges and protections that are conferred upon them by the Act or by other applicable law.

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report with the Board for review, no later than March 31st of the year following the calendar year being reported, which shall contain the following information collected during that period:

    a. Tabular summaries of all data generated under the Monitoring Program;
    b. The monthly and annual quantities of fresh water obtained from all sources;
    c. The monthly and annual quantities of wastes removed for disposal from Licensed Facilities;
    d. The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5;
    e. 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;
    f. A list of unauthorized discharges and summary of follow-up actions taken;
    g. Any revisions to approved Plans and Manuals as required by Part B, Item 11, submitted in the form of an Addendum;
    h. A summary of abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
    i. A summary of any studies, reports and plans requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned; and
    j. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.

2. The Licensee shall submit to the Board for review, a quarterly report for all tests and

monitoring conducted during each Calendar Quarter, no later than forty five (45) days following the quarter being reported, which shall contain the following information:

a. Tabular summaries of all data generated under the Monitoring Program;
b. Monthly quantities of fresh water obtained from all sources;
c. Quarterly sampling results from Monitoring Program Station GRA-3; and
d. The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5.

3. 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.

4. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Board.

5. Metres, 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.

6. The Licensee shall, within ninety (90) days after the first visit by the Inspector following approval 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.

7. The Licensee shall, for all Plans 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 if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.

8. In the event that a Plan is not found acceptable to the Board, the Licensee shall, within thirty (30) days of notification by the Board provide a revised version to the Board for review or approval in writing.

9. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board.

10. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.

11. The Licensee shall review the Plans referred to in this Licence as required by changes in operation and/or technology and modify the Plans or Manuals accordingly. Revisions to the Plans or Manuals are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 1(g), complete with a revisions list detailing

where significant content changes are made.

12. 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 Facilities, Utilidor or Sewage Treatment Facility.

13. The Licensee shall ensure a copy of this Licence is maintained at the municipal office and at the site of operation at all times.

14. Any communication with respect to this Licence shall be made in writing to the attention of:

    Manager of Licensing
    Nunavut Water Board
    P. O. Box 119
    Gjoa Haven, NU X0B 1J0
    Telephone: (867) 360-6338
    Fax: (867) 360-6369
    Email: licensing@nunavutwaterboard.org

15. Any notice made to an Inspector shall be made in writing to the attention of:

    Water Resources Officer
    Nunavut District, Nunavut Region
    P.O. Box 100
    Iqaluit, NU X0A 0H0
    Telephone: (867) 975-4295
    Fax: (867) 979-6445

16. The Licensee shall submit one (1) paper copy and one (1) electronic copy of all reports, studies, and Plans to the Board or as otherwise requested by the Board. Reports or studies submitted to the Board by the Licensee shall include an executive summary in English and Inuktitut.

17. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board, is received by the Board and maintain on file a copy of the acknowledgment of receipt issued by the Manager of Licensing.

18. This Licence is assignable as provided for in Section 44 of the Act.

19. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE AND MANAGEMENT

1. The Licensee shall obtain all fresh water from Nipissar Lake at Monitoring Station GRA-1 using the Water Supply Facilities, or as otherwise approved by the Board in writing.

2. The annual quantity of water used for all purposes shall not exceed eight hundred and fifty thousand (850,000) cubic metres per annum or as otherwise approved by the Board in writing.

3. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.

4. The Licensee shall submit to the Board for review by December 31, 2010, as-built drawings stamped and signed by an Engineer confirming compliance with the DFO guideline "Freshwater Intake End of Pipe Fish Screen Guideline".

5. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless otherwise approved by the Board in writing.

6. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.

7. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

8. The Licensee shall submit to the Board for review by December 31, 2010, a Sustainability Assessment Report for Nipissar Lake. The Report shall include and address the following:

    a. Findings of the water use audit and leak detection survey;
    b. Detailed assessment of current and projected water volumes to be withdrawn from Nipissar Lake against total annual recharge (ie. Water Balance);
    c. Evaluation of impacts on Nipissar Lake due to current water taking and future needs;
    d. Recommendations, including remedial engineering of the facilities and alternative water sources as required to address impacts on Nipissar Lake; and
    e. A schedule to address the recommendations of the report, that is consistent with the conservation and utilization of waters and provides for the optimum benefit from those waters for the residents of Nunavut.

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

10. The Licensee shall, within sixty (60) days following approval of the Licence, install and maintain a water level gauge in Nipissar Lake at Monitoring Program Station GRA-5, or as otherwise approved by the Board.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT

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

2. The Licensee shall provide to the Board by December 31, 2010, written documentation that the Licensee is authorized to deposit sewage sludge and solid waste to a licensed waste disposal facility.

3. The Licensed Facilities shall be maintained and operated in such a manner as to prevent structural failure.

4. The Licensee shall maintain the Licensed Facilities to the satisfaction of an Inspector.

5. The Licensee shall remove from the site, all Hazardous Wastes, waste oil and non-combustible waste generated through the course of the operation, for disposal at a licensed waste disposal facility.

6. The Licensee shall maintain records of all Waste removed from site and records of confirmation of proper disposal of removed Waste. These records shall be made available to an Inspector upon request.

PART E: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION

1. The Licensee shall submit to the Board, for approval in writing, construction drawings signed and stamped by an 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 provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:

    a. The Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications to include:
        i. A description of the facilities and/or works to be constructed;
        ii. The proposed location of the structure(s);
        iii. Identification of any potential impacts to the receiving environment;
        iv. A description of any monitoring required, including sampling locations, parameters measured and frequencies of sampling;
        v. Schedule for construction;
        vi. Drawings of engineered structures signed and stamped by a Professional Engineer; and
        vii. Proposed sediment and erosion control measures.

b. Such Modifications do not place the Licensee in contravention of the Licence or the Act;
c. The Board has not, within sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days;
d. The Board has not rejected the proposed Modifications;

3. Modifications for which any of the conditions referred to above have not been met can be carried out only with written approval from the Board.

4. The Licensee shall provide as-built plans and drawings of the construction and/or modifications referred to in Part E of this Licence within ninety (90) days of completion of the Construction or Modification. These plans and drawings shall be signed and stamped by an Engineer.

PART F: CONDITIONS APPLYING TO OPERATIONS AND MAINTENACE

1. The Board has approved the Plan entitled "Water Supply Facility Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut" revised April 2010.

2. The Board has approved the Plan entitled "Sewage Treatment Facility Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut" revised April 2010.

3. The Board has approved the Plan entitled "Environmental Emergency Contingency Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut" revised April 2010. The Licensee shall submit to the Board for review, within thirty (30) days of approval of this Licence, an addendum to the Plan to address the following:

   a. Confirm the position which acts as the Spill Response Coordinator under Section 3.1 Spill Response Team, and the contact information;
   b. On-site quantities of chemicals used (chlorine, fluorine and others) ;
   c. A map detailing Government of Nunavut, Department of Community and Government Services fuel storage locations and spill kit locations;
   d. A revision to Section 4.0 (2) of the Plan to refer to the INAC Manager of Field Operations rather than Water Resources as the contact in the event of a spill;
   e. A revision to Appendix 2 of the Plan to refer to the NT-NU Spill Report Form;
   f. The on-site location of MSDS, current of 3 years; and
   g. A revision to the contact list in Appendix A of the Plan to include Fisheries and Oceans Canada, Kivalliq Inuit Association, Government of Nunavut, Department of Environment and the local Hunters and Trappers Organization.

4. If, during the period of this Licence, an unauthorized Discharge of Waste and or Effluent occurs, or if such Discharge is foreseeable, the Licensee shall:

   a. Employ as required, the approved Environmental Emergency Contingency Plan;
   b. Report the incident immediately via the 24-Hour Spill Reporting Line (867) 920-8130 and to the Inspector at (867) 975-4295; and
   c. For each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain, clean up and restore the spill site.

PART G: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION AND CLOSURE

1. The Licensee shall submit to the Board for approval in writing, an Abandonment and Restoration Plan at least six (6) months prior to abandoning any facilities or upon submission of the final design drawings for the construction of new facilities to replace existing ones. Where applicable, the Plan shall include information on the following:

   a. Water intake facilities;
   b. The waste treatment and sewage treatment sites and facilities;
   c. Petroleum and chemical storage areas;
   d. Any site affected by waste spills;
   e. Leachate prevention;
   f. An implementation schedule;
   g. Maps delineating all disturbed areas, and site facilities;
   h. Consideration of altered drainage patterns;
   i. Type and source of cover materials;
   j. Future area use;
   k. Hazardous wastes; and
   l. A proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment.

2. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.

3. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.

4. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, January 2002. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.

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

6. The Licensee shall complete all restoration work prior to the expiry of this Licence.

PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

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

Monitoring Program Station Number	Description	Frequency	Status
GRA-1	Raw water supply prior to treatment	Monthly	Active (Volume)
GRA-2	Point of discharge in Prairie Bay (within 20 m of discharge pipe outfall approximately 5 m below the surface)	N/A	Inactive
GRA-3	Effluent discharge from Sewage Treatment Facility	Quarterly	Active (Quality)
GRA-4	Sludge removed from the Sewage Treatment Facility	Monthly	Active (Volume)
GRA-5	Water level gauge in Nipissar Lake	Monthly (during periods of open water)	Active (Water Level)

2. The Licensee shall measure and record in cubic metres, the monthly and annual quantities of water extracted for all purposes at Monitoring Program Station GRA-1.

3. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes and at all Monitoring Program Stations.

4. The Licensee shall sample at least once during a Calendar Quarter at Monitoring Program Station GRA-3 and analyze for the following parameters:

BOD_5	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	

5. The Licensee shall measure and record in cubic metres, the monthly and annual volumes of sludge removed from the Sewage Treatment Facility at Monitoring Program Station GRA-4.

6. The Licensee shall record water elevation monthly, during periods of open water at Monitoring Program Station GRA-5.

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 laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.

9. The Licensee shall within ninety (90) days following approval of the Licence, submit to the Board for review, a revised "Environmental Monitoring Program and Quality Assurance/Quality Control Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut". The revised Plan shall include:

    a. All monitoring requirements listed under Part H of the Licence;
    b. The retention of additional sampling for analysis of parameters that is not required by this Licence but included under the current Plan is encouraged;
    c. A covering letter from an accredited laboratory confirming acceptance of the Quality Assurance/ Quality Control (QA/QC) Plan for analyses to be performed under this Licence.

10. The Licensee shall annually review the QA/QC Plan referred to in Part J, Item 9 and modify it as necessary. Revised QA/QC Plans shall be submitted to the Board with a current approval letter from an accredited lab and shall meet the standards set out in Part H, Item 7 and Part H, Item 8 of the Licence.

11. The Licensee shall 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(a) or as otherwise requested by an Inspector.

12. Modifications to the Monitoring Program may be made only upon written approval of the Board.

Appendix C: Nunavut Water Board Licence Amendment #1 – Licence No. 3AM-GRA1015

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No. 3AM-GRA1015 / Amendment No. 1

December 23, 2014

John Kusugak,
Regional Director, Kivalliq Region
Government of Nunavut,
Department of Community and Government Services
P.O. BAG 002, GN,
Rankin Inlet, NU X0C 0G0

Email: JKusugak@gov.nu.ca

Joe Acorn, P.Eng
Project Manager
Stantec Architecture Ltd.
4910 53 Street, P.O. Box 1777
Yellowknife, NWT X1A 2P4

Email: Joe.Acorn@stantec.com

Subject: **Licence No. 3AM-GRA1015 – Hamlet of Rankin Inlet;**
Amendment No. 1 – Seasonal Replenishment of Nipissar Lake

Dear Mr. Kusugak and Mr. Acorn,

Please find attached, Amendment No. 1 to Licence No. 3AM-GRA1015 Type "A" issued to the Government of Nunavut, Community and Government Services (GN-CGS or Licensee) and as issued by the Nunavut Water Board (NWB) (**Motion 2014-23-P10-03**) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA).

The terms and conditions of the original Licence related to the use of Waters and deposit of Waste remain an integral part of this approval. Please note that the Amendment as issued, must be approved by the Minister of Aboriginal Affairs and Northern Development Canada pursuant to s. 56 of the NWNSRTA and accordingly, the NWB has forwarded the issued Amendment to the Minister for his consideration under a separate cover.

The NWB recommends that the Licensee consult the accompanying "Reasons for Decision Including Record of Proceedings" and all comments received by interested persons on the Application during the licensing process.

Sincerely,

Thomas Kabloona
Nunavut Water Board
Chair

TK/kk/pb

Enclosure: Licence No. **3AM-GRA1015 – Amendment No. 1**
Comments - AANDC, DFO

Cc: Distribution - Kivalliq

NUNAVUT WATER BOARD

3AM-GRA1015 Type "A"
LICENCE AMENDMENT No. 1

Licensee:	**GOVERNMENT OF NUNAVUT, DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES**
Licence Issued:	**June 9, 2010**
Minister Approval of Licence:	**July 28, 2010**
Licence Expiry:	**May 31, 2015**
Amendment No. 1 Issuance:	**December 23, 2014**

Pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, with respect to an application for an amendment dated August 14, 2012 (with additional information provided on October 6, 2012 and August 12, 2013), made by Stantec Architecture Ltd. on behalf of the Government of Nunavut, Community and Government Services for the Hamlet of Rankin Inlet's Municipal Type "A" Water Licence 3AM-GRA1015, and the Reasons for Decision issued by the Nunavut Water Board following the Public Hearing held with respect to the Application, the Nunavut Water Board hereby issues Amendment No. 1 to Licence 3AM-GRA1015 as follows:

NUNAVUT WATER BOARD
WATER LICENCE 3AM-GRA1015 - AMENDMENT NO.1

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

GOVERNMENT OF NUNAVUT, COMMUNITY AND GOVERNMENT SERVICES

(Licensee)

P.O. BAG 002, GOVERNMENT OF NUNAVUT
RANKIN INLET, NUNAVUT X0C 0G0

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use Water or dispose of Waste for a period, subject to restrictions and conditions contained within this Licence amendment:

Licence Number/Type:	3AM-GRA1015 TYPE "A"
Water Management Area:	WILSON WATERSHED (13)
Location:	RANKIN INLET, KIVALLIQ REGION, NUNAVUT LATITUDE 62º49'24'' N, LONGITUDE 92º06'53'' W
Classification:	MUNICIPAL UNDERTAKING
Purpose:	USE OF WATERS
Quantity of Water use not to Exceed:	2,330 CUBIC METERS PER DAY FROM NIPISSAR LAKE, 3,485 CUBIC METERS PER DAY FROM CHAR RIVER TO NIPISSAR LAKE
License Issuance:	JUNE 9, 2010
Expiry of Licence:	MAY 31, 2015

This Licence Amendment No.1, issued and recorded at Gjoa Haven, Nunavut on December 23, 2014.

Thomas Kabloona,
Nunavut Water Board
Chair

APPROVED BY: **Minister of Aboriginal Affairs and Northern Development Canada**

DATE:

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

2. Definitions

Amend **"Water Supply Facilities"**

"Water Supply Facilities" means the areas and associated infrastructure at the Char River exiting the Lower Landing Lake including the water intake and pipeline extending from the Char River to Nipissar Lake as described in the Application for Water Licence Amendment dated August 14, 2012 and associated documents; Nipissar Lake including intake lines, pump-houses, underground pipeline and the Williamson Lake water tank.

PART C: CONDITIONS APPLYING TO WATER USE AND MANAGEMENT

Insert
Item 11 The Licensee shall submit to the Board for approval in writing, prior to March 31, 2015, a Water Pumping Adaptive Management Plan, that shall include the following:

a. Details of seasonal hydrological monitoring of Char River;
b. Details of Char River, Lower Landing Lake and Nipissar Lake water chemistry monitoring and assessment of impacts on Nipissar Lake water quality/chemistry due to the transfer of water from Char River;
c. In-stream flow objectives for Char River including a flow based low cut-off limit of 10% of the instantaneous flow and 0.5m minimum flow depth in the Char River, at which point no further Water is authorized to be withdrawn from the Char River;
d. Details of Char River on-going viability assessment in meeting pumping objectives and water use requirements;
e. Mitigation options and procedures for occurrences when flow is insufficient to meet pumping objectives and consumption requirements.

Insert
Item 12 The Licensee may, withdraw fresh Water from the Char River, exiting the Lower Landing Lake at Monitoring Station GRA-6, and pump to Nipissar Lake annually in accordance with the approved Water Pumping Adaptive Management Plan as submitted under Part C, Item 11.

Insert
Item 13 The daily quantity of Water pumped from the Char River to Nipissar Lake shall not exceed three thousand, four hundred and eighty-five (3,485) cubic metres per day, to be withdrawn in accordance with the approved Water Pumping Adaptive Management Plan, as submitted under Part C, Item 11. Withdrawal of water shall not exceed 10 % of the instantaneous flow of Char River.

Insert
Item 14 The Licensee shall submit to the Board for approval in writing, a revised Water Pumping Adaptive Management Plan, within ninety (90) days of completion of the 2015 hydrological field study, to include actual field flow data analysis. The Licensee shall annually review the Water Pumping Adaptive Management Plan and modify it as necessary. Revised Plans shall be submitted to the Board within the Annual Reports.

Insert
Item 15 The Licensee shall cease water pumping activities from Char River to Nipissar Lake should the In-stream flow objectives for Char River, as per the Water Pumping Adaptive Management Plan and restrictions imposed in Part C, Item 13, not be met.

PART F: CONDITIONS APPLYING TO OPERATIONS AND MAINTENACE

Amend
Item 1 The Board has approved the Plan entitled "Addendum to Operations and Maintenance (O&M) Plan for the Water Supply Facility, Char River, Rankin Inlet, Nunavut", prepared for the Government of Nunavut, Department of Community and Government Services, by Stantec Architecture Ltd., dated May 2014.

Amend
Item 3 The Board has approved the Plan entitled "Spill Contingency Plan for Water Supply and Sewage Treatment Facilities Rankin Inlet, Nunavut", prepared for: the Government of Nunavut, Department of Community and Government Services, by Stantec Architecture Ltd., dated May 2014.

PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

Amend
Item 1 The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Program Station Number	Description	Frequency	Status
GRA-1	Raw water supply from Nipissar Lake prior to treatment	Daily, Monthly, Annually; Annually (spring freshet)	Active (Volume) (Quality)
GRA-2	Point of discharge in Prairie Bay (within 20	Quarterly	Inactive (Quality)

	m of discharge pipe outfall approximately 5 m below the surface)		
GRA-3	Effluent discharge from Sewage Treatment Facility	Quarterly	Active (Quality)
GRA-4	Sludge removed from the Sewage Treatment Facility	Monthly	Active (Volume)
GRA-5	Water level gauge in Nipissar Lake	Monthly (during periods of open water)	Active (Water Level)
GRA-6	Char River Water pumped to Nipissar Lake	Daily, Monthly, Annually; Annually (spring freshet)	New (Volume/Quality)
GRA-7	Lower Landing Lake	Annually (spring freshet)	New (Water Quality)

Amend
Item 2 The Licensee shall measure by instrument and record in cubic metres, the daily, monthly and annual quantities of Water extracted for all purposes at Monitoring Program Station GRA-1, and from the Char River exiting Lower Landing Lake at Monitoring Program Station GRA-6.

Insert
Item 13 The Licensee shall, during water pumping activities from Char River to Nipissar Lake, record daily the total Water flow within the Char River to ensure the Licensee adheres to the Part C, Items 13, 14 and 15 of the Licence, and "Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada", (DFO 2013, or more recent).

Insert
Item 14 The Licensee shall sample annually during spring freshet, at Monitoring Program Stations GRA-1, GRA-6 and GRA-7 and analyze for the following parameters in accordance with the Canadian Council of Ministers of the Environment (CCME, 2013) Water Quality Guidelines for the Protection of Freshwater Aquatic Life:

pH	Conductivity
Total Suspended Solids	Ammonia Nitrogen
Nitrate – Nitrite	Oil and Grease (visual)
Total Phenols	Sulphate
Total Hardness	Total Alkalinity
Sodium	Potassium
Magnesium	Calcium

Chloride	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
Total Zinc	Total Phosphorous
Total Aluminum	Total Manganese
Total Cobalt	Total Arsenic

Total Petroleum Hydrocarbons (TPH)
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

All remaining terms and conditions of Licence 3AM-GRA1015 Type "A" dated June 9, 2010 shall continue to apply.

Appendix D: Nunavut Water Board Short Term Renewal Licence – Licence No. 3AM-GRA1015

Ministre des Affaires autochtones
et du développement du Nord

Minister of Aboriginal Affairs and
Northern Development

Ottawa, Canada K1A 0H4

MAY 30 2015

Mr. Thomas Kabloona
Chair
Nunavut Water Board
PO Box 119
GJOA HAVEN NU X0B 1J0

Dear Mr. Kabloona:

Thank you for your letter of May 20, 2015, conveying the short-term renewal of type A water licence 3AM-GRA1015 for the Hamlet of Rankin Inlet.

I am pleased to inform you that I have approved the water licence as recommended by the Nunavut Water Board. The signed original is enclosed.

Sincerely,

Bernard Valcourt, PC, QC, MP

Encl.

Canada

NUNAVUT WATER BOARD
WATER LICENCE RENEWAL (SHORT TERM)

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

GOVERNMENT OF NUNAVUT, COMMUNITY AND GOVERNMENT SERVICES
(Licensee)

P.O. BAG 002, GOVERNMENT OF NUNAVUT
RANKIN INLET, NUNAVUT X0C 0G0
(Mailing Address)

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

Licence Number/Type:	3AM-GRA1015 TYPE "A"
Water Management Area:	WILSON WATERSHED (13)
Location:	RANKIN INLET, KIVALLIQ REGION, NUNAVUT LATITUDE 62°49'24" N, LONGITUDE 92°06'53" W
Classification:	MUNICIPAL UNDERTAKING
Purpose:	USE OF WATERS
Quantity of Water use not to Exceed:	2,330 CUBIC METERS PER DAY FROM NIPISSAR LAKE, 3,485 CUBIC METERS PER DAY FROM CHAR RIVER TO NIPISSAR LAKE
Licence Issuance:	JUNE 9, 2010
Expiry of Licence:	MAY 31, 2015 (PLUS A MAXIMUM OF 180 DAYS), TO EXPIRE ON NOVEMBER 27, 2015

This Short Term Renewal Licence issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

All remaining terms and conditions of Licence No. 3AM-GRA1015 Type "A" dated June 9, 2010, and Licence Amendment No. 1 dated December 23, 2014, shall continue to apply.

This Short Term Renewal Licence is issued and recorded at Gjoa Haven, Nunavut on May 19, 2015.

Thomas Kabloona,
Nunavut Water Board
Chair

APPROVED BY: **The Honourable Bernard Valcourt**
Minister of Aboriginal Affairs and Northern Development Canada

DATE LICENCE APPROVED: MAY 30 2015

3AM-GRA1015 - SHORT TERM RENEWAL LICENCE

Licensee:	**GOVERNMENT OF NUNAVUT, COMMUNITY AND GOVERNMENT SERVICES**
Licence No:	**3AM-GRA1015 Type "A"**
Licence Issued:	**June 9, 2010**
Minister Approval of Licence:	**July 28, 2010**
Amendment No. 1 Issuance:	**December 23, 2014**
Minister Approval of Amendment No. 1	**January 25, 2015**
Short Term Renewal Issuance	**May 20, 2015**
Short Term Renewal Expiry	**November 27, 2015**

Pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters* and the *Nunavut Surface Rights Tribunal Act*, with respect to an application for short term renewal licence received from Government of Nunavut, Community and Government Services (GN-CGS or Applicant or Licensee) on March 26, 2015 for the Hamlet of Rankin Inlet and the Reasons for Decision issued by the Nunavut Water Board (NWB) on that application, the NWB hereby issues this Short Term Renewal to Licence No. 3AM-GRA1015 as follows:

NUNAVUT WATER BOARD
WATER LICENCE RENEWAL (SHORT TERM)

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

GOVERNMENT OF NUNAVUT, COMMUNITY AND GOVERNMENT SERVICES

(Licensee)

P.O. BAG 002, GOVERNMENT OF NUNAVUT
RANKIN INLET, NUNAVUT X0C 0G0

(Mailing Address)

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

Licence Number/Type:	3AM-GRA1015 TYPE "A"
Water Management Area:	WILSON WATERSHED (13)
Location:	RANKIN INLET, KIVALLIQ REGION, NUNAVUT LATITUDE 62º49'24'' N, LONGITUDE 92º06'53'' W
Classification:	MUNICIPAL UNDERTAKING
Purpose:	USE OF WATERS
Quantity of Water use not to Exceed:	2,330 CUBIC METERS PER DAY FROM NIPISSAR LAKE, 3,485 CUBIC METERS PER DAY FROM CHAR RIVER TO NIPISSAR LAKE
Licence Issuance:	JUNE 9, 2010
Expiry of Licence:	MAY 31, 2015 (PLUS A MAXIMUM OF 180 DAYS), TO EXPIRE ON NOVEMBER 27, 2015

This Short Term Renewal Licence issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

All remaining terms and conditions of Licence No. 3AM-GRA1015 Type "A" dated June 9, 2010, and Licence Amendment No. 1 dated December 23, 2014, shall continue to apply.

This Short Term Renewal Licence is issued and recorded at Gjoa Haven, Nunavut on May 19, 2015.

Thomas Kabloona,
Nunavut Water Board
Chair

APPROVED BY:

The Honourable Bernard Valcourt
Minister of Aboriginal Affairs and Northern Development Canada

DATE LICENCE APPROVED: _____

Appendix E: Sewage Screenings Removal Log for Water Licence No. 3AM-GRA1015

Rankin Inlet Sewage Treatment Plant
Sewage Screenings Removal Log
Water Licence No. 3AM-GRA1015

Date	Volume of Sludge Removed (m^3)	Name	Comments

Appendix F: Auger Monster Bagging System Replacement

OPERATION AND MAINTENANCE INSTRUCTION

AUGER MONSTER®

DISCHARGE BAGGING SYSTEM

Prepared by

JWC Environmental, Inc.
2600 South Garnsey
Santa Ana, CA 92707

OPERATION & MAINTENANCE INSTRUCTION
AUGER MONSTER ®
DISCHARGE BAGGING SYSTEM

1. GENERAL

The Discharge Bagging System is a screenings collection device that offers a clean, odor-free method of collecting material discharged from an auger.

2. DESCRIPTION

The Discharge Bagging System consists of an adapter gasket, 1/8-inch (3-mm) stainless steel adapter flange, ABS-type injection molded corrosion-proof bag cassette assembly, and a large rubber/stainless steel band. The adapter flange, with adapter gasket, is attached to the auger discharge section discharge chute and the bag cassette assembly, consisting of a bag cassette chute, bag cassette, bag flange, retaining ring; plastic sleeve assembly is attached to the adapter flange. The bag cassette assembly, consists of bag cassette and bag cassette chute, forms an enclosure for the accordion-folded, plastic bagging sleeve package.

The plastic bagging sleeve package is a continuous tubular polyethylene-plastic sleeve cartridge, 230-feet (70-meter) long and 22.5-inches (57-mm) in diameter. A portion of the polyethylene-plastic sleeve is pulled out of the sleeve cartridge to the desired length; the open end is tied-off to form the "bag bottom". Discharged material falls into and is collected in the bag. When the operator decides the bag is full, the plastic is cut and knotted completing the bag. The filled bag is then disposed of as defined in plant procedures. A new sleeve segment is then pulled from the sleeve cartridge, the open end is tied off to form the bottom of the next "bag" and the screenings collection is resumed. The user using an average "bag" of approximately 36-inches (91-cm) of sleeve length should realize a yield of approximately 75 "bags" for each 230-foot (70-meter) sleeve cartridge.

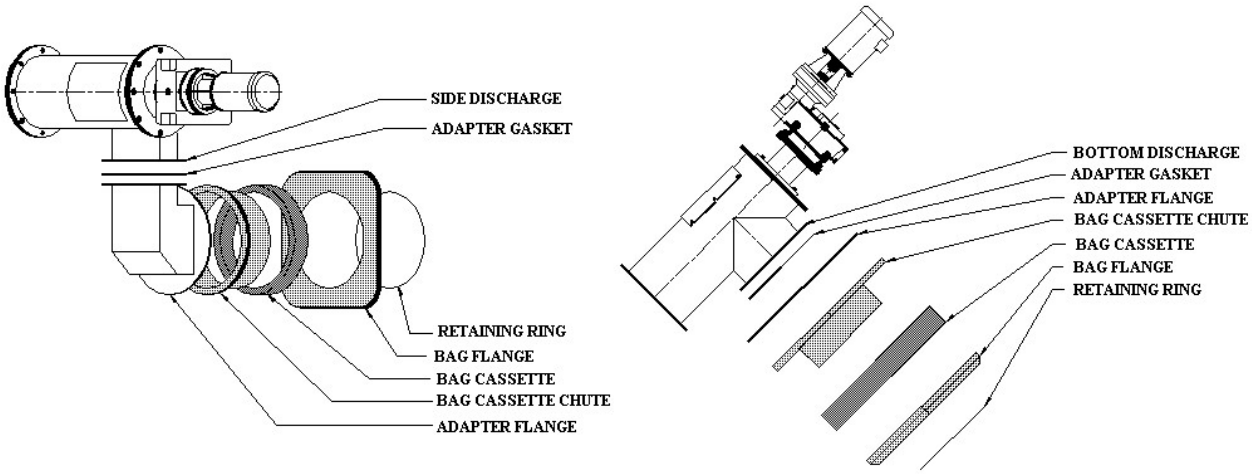


FIGURE 1. SIDE AND BOTTOM DISCHARGE BAGGER

3. INSTALLATION

The Discharge Bagger can be installed as a side (left or right) or bottom discharge as described in the following procedure. Refer to Figure 1 for an exploded view of the discharge bagger components and the order in which they are installed.

A. Verify auger discharge outlet has a drilled flange for mounting the bagger adapter flange.
B. Remove packing material. **DO NOT** remove any components from the packing crate/carton until it has been carefully checked for damage that may have occurred in transit. Report **ALL** damage immediately to the carrier and send a copy to the vendor. If **NO** transit damage is found proceed to Step C.
C. Remove the discharge bagger components **EXCEPT** the accordion-folded, plastic sleeve from the shipping container**. Avoid damage; DO NOT remove the accordion-folded, plastic sleeve until just before it is installed in Step G.**
D. Inspect the bagger components for damaged or missing parts. If parts are damaged or missing, contact your factory representative.

CAUTION:	**AVOID DAMAGE. USE CARE WHEN INSTALLING THE BAGGER COMPONENTS.**

E. Mount the bagger-to-auger adapter flange with adapter gasket on the auger discharge outlet flange
F. Mount the bag cassette chute (bagging material holder) to the bagger flange. Secure in place with eight hex head cap screws, washers, and nuts.
G. Remove, slowly and carefully, the accordion-folded, plastic sleeve from its shipping container. **DO NOT remove the ties around the plastic sleeve material**.
H. Position, slowly and carefully, the plastic sleeve around the bag cassette chute (bagging material holder).

NOTE: The factory recommends that two (2) technicians be used to perform the installation and setup of the bag described in Steps I through L.

. I. **HOLD THE SLEEVE IN PLACE** and slide the bag cassette (bagger cover) and bag flange on the bag cassette chute (bagging material holder). Continue to hold the bag cassette (bagger cover) and bag flange and proceed to Step J.
J. Seat the large rubber/stainless steel band in the slot on the outer surface of the bag cassette chute (bagging material holder) to secure the bag cassette (bagger cover) in place.
K. Remove the ties around the plastic sleeve.
L. Locate and, carefully and slowly, pull the end of the sleeve over the edge of the bag cassette (bagging material cover).
M. Remove, using a slow and even pull, the desired bag length of the plastic sleeve from the bag cassette (bagging material holder) and, tie the end of the sleeve in a knot to form the bag bottom. When the operator determines the bag is full, the plastic is cut and knotted, sealing the bag. The filled bag is then disposed of as defined in plant procedures. The next bag is knotted, and the screening collection continues.

4. REMOVAL AND REPLACEMENT

The discharge bagger can be installed at 90° to the left or right, or down as shown in Figure 1. Once installed on the auger, removal and replacement is limited to changing the catch container and folded plastic sleeve. Removal of the bagger-to-auger adapter flange should only be done in

4. REMOVAL AND REPLACEMENT (Cont'd)

the event of an auger component replacement or major maintenance action. The following describes the replacement of the folded plastic sleeve.

NOTE: The factory recommends that two (2) technicians be used to perform the removal and replacement described in the following procedure.

A. Remove the securing rubber/stainless steel band from the slot on the outer surface of the bagging material holder. Remove the bagging assembly cover from the bagging material holder.

B. Install the replacement folded plastic sleeve as defined in Paragraph 3, Steps G through M.

5. PARTS IDENTIFICATION

Table 1 lists the parts applicable to the bagger.

6. SERVICE QUESTIONS

For answers to your service questions please contact our Customer Service Department at the following addresses, or contact your local sales/service representative.

Western Region
JWC Environmental
2600 S. Garnsey St.
Santa Ana, CA 92707
1-800-331-2277
(949) 833-3888
(714) 751-1913 (fax)

Eastern Region
JWC Environmental
4485 Commerce Drive, Suite 109
Buford, GA 30518-3473
1-800-331-8783
(770) 925-7376
(770) 925-9406 (fax)

TABLE 1. BAGGER ASSEMBLY PARTS LIST (Sheet 1 of 2)

Part No.	Description	Qty.
SWA Bottom Discharge Bagger [A]		
SWC0526-0001	Plate, Adapter, Bagger Bottom, 304 Stainless Steel	1
AMC0520	Bagger, Plastic, LongoPac	1
AMC0528-002-SU	Assembly,Band/Spring,, Retaining, 316 Stainless Steel	1
30108	Screw, Hex Head Cap, 5/16-18 X 1, Stainless Steel	16
30130	Washer, Lock, 5/16, Stainless Steel	16
30268	Washer, Flat, #10, Stainless Steel	8
30269	Washer, Lock, #10, Stainless Steel	8
30270	Nut, Hex, #10-24, Stainless Steel	8
30372	Screw, Round Head Machine	8
Bottom Discharge Bagger [B]		
AMC0526	Adapter, Bagger Straight	1
AMC0421	Gasket, Segment	1
AMC0520	Bagger, Plastic, LongoPac	1
AMC0424-0001	Gasket, Bagger Assembly (Circ)	1
AMC0528-002-SU	Assembly,Band/Spring,, Retaining, 316 Stainless Steel	1
AMC0521	Replacement, Bag Material	2
50102	Screw, Hex Head Cap, 3/8-16 X 1-1/2, Stainless Steel	8
30102	Washer, Flat, 3/8, SAE, Stainless Steel	8
30140	Washer, Lock, 3/8, Stainless Steel	8
30141	Nut, Hex, 3/8-16, Stainless Steel	8
30372	Screw, Round Head Machine	8
30268	Washer, Flat, #10, Stainless Steel	8
30269	Washer, Lock, #10, Stainless Steel	8
30270	Nut, Hex, #10-24, Stainless Steel	8
Side Discharge Bagger [C]		
AMC0526-0002	Adapter, Bagger, Side Discharge	1
30131	Screw, Hex Head Cap, 3/8-16 X 1-1/4, Stainless Steel	6

TABLE 1. BAGGER ASSEMBLY PARTS LIST (Sheet 2 of 2)

Part No.	Description	Qty.
30102	Washer, Flat, 3/8, SAE, Stainless Steel	6
30140	Washer, Lock, 3/8, Stainless Steel	6
30141	Nut, Hex, 3/8-16, Stainless Steel	6
AMC0520	Bagger, Plastic, LongoPac	1
30372	Screw, Round Head Machine	8
30268	Washer, Flat, #10, Stainless Steel	8
30269	Washer, Lock, #10, Stainless Steel	8
30270	Nut, Hex, #10-24, Stainless Steel	8
AMC0423-0001	Gasket, Bagger Assembly (Rect)	1
AMC0424-0001	Gasket, Bagger Assembly (Circ)	1
AMC0528-002-SU	Assembly,Band/Spring,, Retaining, 316 Stainless Steel	1
AMC0521	Replacement, Bag Material	2

[A] Used with Screenings Washer Assembly SWA0520-0001.

[B] Used with Auger Assembly AMA0520-0001.

[C] Used with Auger Assembly AMA0520-0002.

Appendix G: Minutes of Meeting – Nuna Burnside and Enviro-Con (December 9, 2011)

Nuna Burnside Engineering and Environmental Ltd. 106-B Scurfield Boulevard Winnipeg MB R3Y 1G4 Canada
telephone (204) 949-7110 **fax** (204) 949-7111 **web** www.nunaburnside.com

NUNA BURNSIDE
An Aboriginal Owned Company

Minutes of Meeting

Rankin Inlet Sewage Treatment Plant Upgrade
Monster Auger Maintenance

Meeting Date:	December 9, 2011	**Date Prepared:**	January 17, 2012
Time:	1:00 pm		
Location:	Conference Call		
File No.:	NAY020038.310		

Those in attendance were:

Chet Karpowicz	Enviro-Con
Erik Buus	Nuna Burnside
Gerry Popowich	Nuna Burnside

The following items were discussed: **Action by**

1. Brushes will have to be replaced every 2 – 3 years depending on type of effluent entering the system. Under extreme condition with heavy types of effluent entering the system the brushes could last as short as18 months.
2. Brushes are to be checked on a weekly base for normal wear.
3. Monster Auger overall weight 671 kg
4. Level controls required to operate auger.
5. The auger is mounted on a pivot head that allows the auger to be easily lifted, tilted, and twisted in any direction that is required for maintenance of the auger. The unit is equipped with lifting lugs to allow easy lifting. Base on the size of the auger it must be in a horizontal position for the internal auger to be removed. For removal of the auger it requires approximately 3.6 m (12ft) to 4.5m (15ft) of length from the end of base to remove the auger from assembly.
   Removal of the brushes from auger takes up to about 4-6hours. The brush spine is made up of set screws that are easy and quick to remove from the auger assembly.

Action by

6. Lubrication of motor gear box another maintenance item.

7. Monster Auger can be raised with straps. Overhead hoist required.

8. Motor is on top of Grinder pump Grinder – after 3 months of operation check the cutter blades on grinder pump.

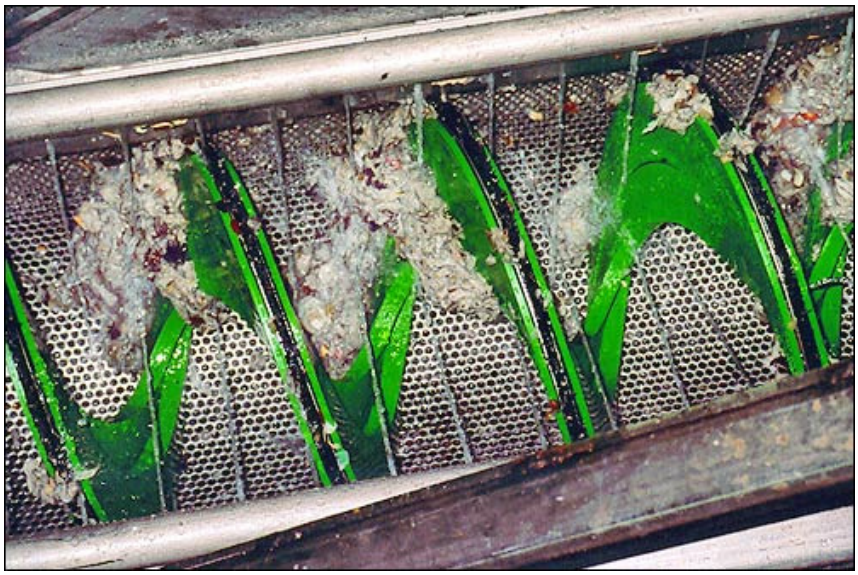
9. Grinder is required to be pulled annually for maintenance and cutting blades to be checked for normal ware and adjustment is required. Cutting blades can be easy adjusted. No greasing is required only a gear drive that needs to be checked for oil.

10. JWC Environmental manufacture website has additional 28 photos of Monster Auger headwork.

http://www.jwce.com/products/auger-monster-modular-headworks-system/

Example of monster auger discharging into BFI roll bin

Action by



View of monster auger with brushes

Example of monster auger hoist lifting system

Action by


Example of using a bagger collection system.

The preceding are the minutes of the meeting as observed by the undersigned. Should there be a need for revision, please advise within seven days. In the absence of notification to the contrary, these minutes will be deemed to be an accurate record of the meeting.

Minutes prepared by:

Nuna Burnside Engineering and Environmental Ltd.

Gerry Popowich, P.Eng.
GP:sg

Distribution: attendees

Appendix H: MOU between Hamlet of Rankin Inlet and GN-CGS

This MEMORANDUM, OF agreement (the "Agreement") takes effect on the 20 day of May 2010

BETWEEN:

The Government of Nunavut (the "GN") as represented by:

The Minister of Community and Government Services
(The "Minister")

OF THE FIRST PART

- And -

The Municipal Corporation of Rankin Inlet as represented by its Council (the "Council")

OF THE SECOND PART

WHEREAS:

1. The Council has, by way of Motion # 111-10 stated that it would enter into a Memorandum of Agreement as described in Appendix A.

2. The Parties wish to define their responsibilities relating to THE Hamlet's acceptance of waste sewage solids (sludge) at the Rankin Inlet solid waste site

THEREFORE, in consideration of the terms and conditions contained herein, the Parties agree as follows:

1. to the nature and scope of this agreement as outlined in Appendix A.

2. The Terms and Conditions of this Agreement may only be amended in writing and by the mutual consent of the Parties.

3. This Agreement shall be governed by and interpreted in accordance with the laws of Nunavut.

4. Whereas the Hamlet has been receiving sewage waste sludge for many years it is now required by Nunavut Water Board that this procedure be in a written agreement. It is the intent of this agreement that no additional or new responsibilities will be required of the Hamlet of Rankin Inlet regarding the acceptance of sewage sludge at the solid waste site operated by the Hamlet of Rankin Inlet . This agreement is applicable to the existing solid waste site and the new solid waste site which is planned to be put into operation in the future.

APPENDIX LIST

The following Appendices "A" is part of this agreement

Appendix A : Details of the agreement between the Hamlet and Community and Government Services regarding acceptance of sewage waste (sludge) at the Rankin Inlet solid

This Agreement will be in effect, unless terminated by either of the Parties, until MAY 1, 2016. The Minister or Deputy Minister and the Council or its designated representative may extend the Agreement, if agreement is reached in writing.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement as of the date and year first above written.

Signed for the GN

PER: _____
MINISTER, or designated representative
DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES

_____
WITNESS

Signed and sealed for the Council of the Municipal Corporation of Rankin Inlet

PER: _____
MAYOR

_____
WITNESS

Appendix A

Re: Agreement between Community and Government Services, Government of Nunavut and the Hamlet of Rankin Inlet Regarding Waste Disposal

The Department of Community and Government Services (CGS) of the Government of Nunavut (GN), operate the Water Supply Facility and Sewage Treatment Facility, in the Hamlet of Rankin Inlet on behalf of the Corporation of the Hamlet of Rankin Inlet. CGS-GN will uses it resources to provide the following support activities for the delivery of the sewage waste to the solid waste site.

- CGS-GN will enlarge the sewage sludge disposal area from time to time as required to accommodate a protected and isolated location in the solid waste site. for the sewage sludge.
- CGS- GN will be responsible to clean up all emergency spills of waste materials that may occur in the process of delivering the sewage waste to the solid waste site

In support of the services provided by CGS-GN in operating these facilities, the Hamlet of Rankin Inlet agrees to the following:

- Approval for CGS-GN to deposit sewage treatment plant sludge at the Hamlet Solid Waste Disposal Facility (landfill) at the locations specified by the Hamlet .There will be no costs to CGS-GN to deposit these waste sewage sludge materials in the Hamlet's solid waste site .

- Acceptance of all waste materials generated by the Water Treatment Facility and Sewage Treatment Facility. The sewage waste material (sludge) , from the plant which will be delivered to the Hamlet's solid waste site by CGS –GN .Once the waste is deposited in trenches the Hamlet will cover the waste per the operations and maintenance procedures for the solid waste disposal site.