File No.: **3BM-RES2025** 

March 31, 2020

Kimberley Young Chief Administrative Officer Municipality of Resolute Bay P.O. Box 60 Resolute Bay, NU XOA 0V0

P.O. Box 379 Pond Inlet, NU X0A 0S0

Bhabesh Roy, M.A.Sc., P. Eng.

Municipal Planning Engineer, Baffin Region

GN - Community and Government Services

Email: cao@resolute.ca Email: broy@gov.nu.ca

**RE:** NWB Renewal Water Licence No. 3BM-RES2025

Dear Ms. Young and Mr. Roy:

Please find attached Water Licence No. **3BM-RES2025** (Licence) issued to the Hamlet of Resolute Bay by the Nunavut Water Board (NWB or Board) 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 (Nunavut Agreement)*. The terms and conditions of the attached Licence related to Waste disposal are an integral part of this approval.

If the Licensee contemplates the continuing of this Undertaking after the Water Licence expires, it is the responsibility of the Licensee to apply to the NWB for a renewal Water Licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then the use of Water and deposit of Waste must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least **three (3) months** prior to the Licence expiry date. It should be noted that in accordance with Section 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with Section 76 of *NuPPAA*.

If the Licensee contemplates or requires an amendment to this Licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit an application for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of <u>sixty (60) days</u> is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received from Crown-Indigenous Relations and Northern Affairs (CIRNA) on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,

Lootie Toomasie Nunavut Water Board

Chair

LT/sk/ri

Enclosure: Licence No. 3BM-RES2025

Comments - CIRNA

Cc: Distribution List – Qikiqtani

<sup>&</sup>lt;sup>1</sup> Crown-Indigenous and Northern Affairs (CIRNA) Letter, Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on the Hamlet of Resolute Bay's renewal application for Water Licence #3BM-RES1520 for the deposit of Waste – Hamlet of Resolute Bay, dated March 12, 2020.

# TABLE OF CONTENTS

<b>DECISION</b>	<u>ON</u>	ii
I.	BACKGROUND	iii
II.	FILE HISTORY	
III.	APPLICATION PROCEDURAL HISTORY	
IV.	ISSUES	v
Т	Ferm of the Licence	v
	Annual Report	
	olid Waste	
	Management Plans	
	Monitoring	
RENEW	VAL WATER LICENCE	1
PART A		
1		
1	1	
2		
3	Enforcement	4
PART B	. 021,214,12 001,211101,8	
PART C	: CONDITIONS APPLYING TO WATER USE	6
PART D	: CONDITIONS APPLYING TO WASTE DISPOSAL	6
PART E	: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCT	ΓΙΟΝ 7
PART F:	: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE.	8
PART G		
	TEMPORARY CLOSING	
PART H	: CONDITIONS APPLYING TO THE MONITORING PROGRAM	10

## **DECISION**

#### LICENCE NO. 3BM-RES2025

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated January 23, 2020 for the renewal of a Water Licence made by:

## HAMLET OF RESOLUTE BAY

to allow for the deposit of Waste during municipal activities by the Hamlet of Resolute Bay located within the Qikiqtani Region of Nunavut at the following general geographical coordinates:

Latitude: 74°43'01"N Longitude: 94°58'10"W

## **DECISION**

After having been satisfied that the Application is for a proposal that was previously reviewed by the Nunavut Planning Commission (NPC) and for which the conformity determination, dated August 20, 2014 and March 14, 2016, remains applicable, and is exempt from the requirements for screening by the Nunavut Impact Review Board (NIRB),<sup>2</sup> as described within Section 12.4.3/ Schedule 12-1 of the *Nunavut Agreement*, the NWB decided that the application could proceed through the regulatory process. In accordance with Section 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA* or *Act*) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Licence No. 3BM-RES1520 be renewed as Licence No. 3BM-RES2025 subject to the terms and conditions contained therein (Motion #: 2019-B1-032).

Signed this 30<sup>th</sup> day of MARCH, 2020 at Gjoa Haven, NU.

Lootie Toomasie

Nunavut Water Board, Chair

LT/sk/ri

<sup>&</sup>lt;sup>2</sup> Nunavut Planning Commission (NPC) Conformity Determination, November 8, 2019.

#### I. BACKGROUND

The Hamlet of Resolute Bay (Hamlet) is located approximately 1550 km northwest of Iqaluit on the south coast of Cornwallis Island on the Perry Channel. The current estimated population of Resolute Bay is 282 people (2020) with approximate growth rate of 3% annually. The community was designed to accommodate up to 1,500 people. This is a National Defense training centre. Therefore, the Hamlet population increases to approximately 800 individuals during summer due to the presence of the military.

There are three Water Licences overseen by the Government of Nunavut, Community and Government Services (GN-CGS), for this community:

- Licence No. 3BM-RES1520 allowing for the deposit of Waste at the Solid Waste Facilities;
- Licence No. 3BM-RUT1520 allowing for the use of Water and disposal of Sewage through the Utilidor System, and currently being amended to become a Type "A" licence; and
- Licence No. 3BM-YBR1621 allowing for the deposit of Waste at the airport Sewage disposal facility.

In the current Application, GN-CGS notes that the scope of activities currently authorized under Water Licence No. 3BM-RES1520 will remain unchanged, which includes the management of municipal solid Wastes at the following non-engineered disposal facilities:

- Domestic solid Waste site;
- Bulky metal Waste site within the community;
- New Fenced Metal Waste Site (FMWS) next to the airport.

The scope of the present Licence was broadened in 2016 to include the Fenced Metal Waste Site (previously defined as the Unused Dump Site under Amendment # 1 to Licence No. 3BM-RES1520), because the other two were reaching capacity. This additional Waste site was constructed in 2001 without authorization from the NWB. Presently, a Waste audit and feasibility study of the Hamlet's solid Waste management is being undertaken. A new site for all types of Wastes is expected to be built within the next 3 to 4 years.

It was previously recommended to combine the two Type "B" Licences Nos. 3BM-RES1520 and 3BM-RUT1520 into one during the renewal of the latter one as a Type "A" Licence. However, due to outstanding issues with the existing Licence No. 3BM-RES1520, it is not practical to amalgamate the licences at this stage, since a Type "B" licence will generally allow for more flexibility and potential amendments or modifications, compared to a Type "A" licence that will generally have significantly longer processing times. The Board hopes that the current term of the Licence will provide the Applicant with adequate time to address all issues associated with this Undertaking, so that the scope of this Licence can be incorporated into the scope of the proposed Type "A" licence No. 3AM-RUT, during the next renewal, should the Type "A" licence be issued by the Board and approved by the Minister.

#### II. FILE HISTORY

Historically, the Hamlet of Resolute Bay has held Water Licences with the NWB since 1996, as outlined in Table 1.

**Table 1. Project Licensing History** 

Licence No.	Date Issued	Comments
N4L3-1571 (3BM-RES9699)	July 1, 1996	Initial Water Licence issued by the Northwest Territories Water Board (NWTWB) (and later renamed as 3BM-RES9699 by the NWB) allowing for the use of Water (65,000 m³ per year) and disposal of Waste, including Sewage and solid Waste.
3BM-RES1520	June 17, 2015	Authorization for the deposit of Waste at the Solid Waste Facilities (the scope of the original licence was split between two licences: Licence No. 3BM-RES1520 for the Solid Waste Management Facility and Licence No. 3BM-RUT1012 (later renewed as 3BM-RUT1520) for the Utilidor System.

#### III. APPLICATION PROCEDURAL HISTORY

On January 30, 2020, an Application to renew Licence No. 3BM-RES1520 was submitted to the NWB by Government of Nunavut – Community and Government Services (GN-CGS) on behalf of the Hamlet of Resolute Bay (Applicant or Licensee). Following receipt, the NWB conducted an internal review of the Application package, which identified that the Application Form had to be corrected in order for the Application to proceed through the licensing process.

On February 17, 2019, the Proponent provided the revised version of the Application Form. Following this submission, the NWB concluded that the Application met the requirements of section 48(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA or Act)* and forwarded Notice of the Application to regulators and other interested parties. All parties were invited to make representations to the NWB by March 12, 2020. The Application to renew Licence No. 3BM-RES1520 included the following documents:

- Cover Letter, dated January 30, 2020;
- NPC Letter, dated November 8, 2019;
- Executive Summary of the Project Proposal in English and Inuktitut;
- Application for Water Licence Renewal, dated January 23, 2020;
- Resolute Bay authorization letter, dated January 23, 2020;
- Compliance table, dated January 29, 2020;
- 2019 Annual Report;
- 2019 leachate chemistry results.

On or before the deadline for comments, the NWB received a submission from Crown-Indigenous Relations and Northern Affairs (CIRNA)<sup>1</sup>.

Based on the results of the detailed assessment of the Application, including consideration of any potential accidents, malfunctions, or impacts to Water that the overall project might have in the area, the Board has approved the Application and has issued Water Licence No. 3BM-RES2025.

The issuance of this Licence will replace Licence No. 3BM-RES1520. Since the project activities have remained the same as with the previous Licence, all terms and condition in the renewal Licence will remain the same.

#### IV. ISSUES

#### Term of the Licence

The Licensee has requested a five (5) year term for the Renewal Licence. In accordance with s. 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA* or the *Act*), the NWB may issue a Licence for a term not exceeding twenty-five (25) years. In determining an appropriate term for the Renewal Licence, the Board took into consideration several factors including intervener's comments, the Licensee's compliance history, and rationale included in the Application.

Following consideration, the NWB has decided to issue the licence for five (5) years. The Board believes that this time period will provide a realistic opportunity for the Licensee to prove to the Board that it can meet the long-term requirements of the Licence, allow for the commissioning of new and upgraded infrastructure, as well as establish a consistent compliance record with respect to the requirements under the terms and conditions of its Licence. The five (5) year renewal Licence will also ensure that sufficient time is given to permit the Licensee to develop, submit, and implement the Plans required under its licence to the satisfaction of the Board.

The NWB also notes CIRNA's recommendation that all the facilities under the three licences for the Hamlet of Resolute Bay should once again be amalgamated under one Water Licence. However, due to outstanding issues with the existing Licence No. 3BM-RES1520, it is not practical to amalgamate the licences at this stage. The Board hopes that the current term of the Licence will provide the Applicant with adequate time to address all issues associated with this Undertaking, so that the licences can be amalgamated during the next renewal.

## **Annual Report**

Under Part B, Item 1 of the Licence, the Licensee is required to submit Annual Reports for the purpose of ensuring that the NWB has an accurate annual update of municipal activities related to Water use and Waste disposal during each calendar year. This information is maintained on the Public Registry and is available to interested parties upon request. A "Standardized Form for Annual Reporting" is to be used by the Licensee and is available from the NWB file transfer protocol (FTP) site under the Public Registry link at the NWB Website: <a href="http://ftp.nwb-oen.ca/other documents/Standardized Forms/">http://ftp.nwb-oen.ca/other documents/Standardized Forms/</a>

The NWB has also taken this opportunity to review the Annual Reports submitted in recent years, and the following deficiencies in reporting have been identified:

- failure to submit the required documentation on time;
- mislabeled Monitoring Program stations or missing labels in chemistry data submitted to the Board.

The Board would like to remind the Licensee that the Annual Reporting requirements of the Licence should be adhered to at all times, in order to maintain full compliance with respective terms and conditions in the Licence. The Board strongly recommends that for all subsequent annual submissions the Licensee demonstrates more systematic sample identification, in accordance with Part H, Item 1 of the current Water Licence.

Additionally, a number of compliance issues has been identified by CIRNA Inspector and provided within the 2017, 2018, and 2019 Water Licence Inspection Reports. The Board strongly recommends that the Licensee review these reports and address all issues identified summarizing the work done in the subsequent Annual Report.

#### **Solid Waste**

The Hamlet of Resolute Bay currently manages its solid Wastes through the following non-engineered Waste disposal facilities:

- *Domestic solid Waste site*, also referred to as municipal dump, situated at the western tip of the community, approximately 4 km southwest of the community of Resolute Bay and 0.5 km north of the ocean shoreline;
- Bulky metal Waste site, also referred to as the metal dump, located 0.5 km northwest of the community; and
- Fenced Metal Waste Site (FMWS), also referred to as the construction Waste storage site or Unused Dump Site, situated next to the airport sewage lagoons, 2 km north of the airstrip and 7 km northwest of the community.

As noted in the Application, the first two Waste sites are reaching capacity, so the community has started using the Fenced Metal Waste Site located next to the airport.

All requirements pertaining to Waste management that were imposed by the previous Water Licence have been carried forward into the current Licence.

The Board notes that in the July 13, 2019 Inspection Report, CIRNA Inspector indicated that the Hazardous Waste is not properly segregated contrary to the requirements under Part D, item 6 of the Licence, and recommended to consolidate all Hazardous Waste and store it in the Hazardous Waste section of the domestic solid Waste site. Additionally, the inspector noted that the Hamlet personnel are conducting periodic burning of the Waste without alerting the CIRNA Inspector, as required under Part D, Item 5 of the Licence. The NWB is also concerned that a lack of properly segregated Waste, improper sampling of contaminated Waste/soil/groundwater, and lack of control regarding public access to the site is a high risk situation with respect to the protection of fresh Water, uncontrolled fires and general hazards to the public. The Board strongly recommends that the Licensee review the above noted Water Licence Inspection Report and address all issues identified summarizing the work done in the subsequent Annual Report.

#### **Management Plans**

The following Operation and Maintenance Plans have been previously approved by the NWB:

- "Solid Waste Operation and Maintenance Plan for Hamlet of Resolute Bay," dated May 2014; and
- "Solid Waste (Metals) Operations and Maintenance Plan for Resolute Bay," dated March 2016.

The Board notes that while these Plans are reasonably functional and can be implemented, the Board also agrees with CIRNA's concern that these Plans do not discuss any measures taken to prevent contaminants at the dumps from entering the Water, and provide outdated Monitoring Program information. Therefore, the Board has included conditions, under Part F, Items 1 and 2, requiring submission of the updated Plans addressing CIRNA's concerns to the Board for review within ninety (90) days from the date of issuance of this Licence.

The Board also notes that the *Long-term Solid Waste Management Plan* and the updated version of the *Abandonment and Restoration Plan* reflecting the incorporation of the Unused Dump Site, as required under respective Part F, Item 2 and Part G, Item 8 of the previous Water Licence, have not been provided to the Board to date. Therefore, these conditions were carried forward into the current Licence under Part F, Item 3 and Part G, Item 1, respectively.

Additionally, the Spill Contingency Plan entitled "Spill Contingence Plan, Resolute Bay Metal Waste (2001) Site", dated July 2016, that was approved by the Board as part of the application process for Amendment # 1 to the previous Water Licence, should be updated to include the spill contingency measures for all Solid Waste Sites covered under this Licence, a clear copy of the NT-NU Spill Report form, and the updated contact information for CIRNA, as required under Part F, Item 5.

### **Monitoring**

The NWB maintains the conditions pertaining to the Monitoring Program requirements outlined in Part H of the previous Water Licence. The Licensee must ensure that the Monitoring Program requirements are fully implemented. It should also be noted that while minimum sampling requirements have been imposed, additional sampling may be required upon request by an Inspector.

Additionally, the Board would like to emphasize CIRNA's concern that the Monitoring Program stations are inconsistent throughout different Management Plans and have incorrect coordinates. Therefore, the Board has included a condition, under Part H, Item 5, requiring submission to the Board for review within ninety (90) days from the date of issuance of this Licence, an updated *Quality Assurance/Quality Control (QA/QC) Plan* addressing CIRNA's concerns.



# NUNAVUT WATER BOARD RENEWAL WATER LICENCE

#### Licence No. 3BM-RES2025

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

## **HAMLET OF RESOLUTE BAY**

(Licensee)

P.O BOX 60, RESOLUTE BAY, NUNAVUT, X0A 0V0,

(Mailing Address)

hereinafter called the Licensee, the right to dispose of Waste for a period subject to restrictions and conditions contained within this Licence Renewal:

Licence Number/Type: 3BM-RES2025 / TYPE "B"

Water Management Area: BATHURST AND CORNWALLIS ISLANDS WATERSHED

**(55)** 

Location: **RESOLUTE BAY, CORNWALLIS ISLAND** 

**QIKIQTANI REGION, NUNAVUT** 

Classification: MUNICIPAL UNDERTAKING

Purpose: **DEPOSIT OF WASTE** 

Quantity of Water use not

to Exceed: USE OF WATER IS NOT AUTHORIZED

Effective Date: MARCH 30, 2020

Expiry of Licence: MARCH 29, 2025

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

Lootie Toomasie,

Nunavut Water Board, Chair

# PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

## 1. Scope

This Licence allows for the deposit of Waste for a Municipal undertaking classified as per Schedule 1 of the *Regulations*, at the Hamlet of Resolute Bay, located within the Qikiqtani region of Nunavut, geographical coordinates are as follows:

Latitude: 74°43'01"N Longitude: 94°58'10"W

- a. This Licence is issued subject to the conditions contained herein with respect to the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

#### 2. Definitions

"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;

"<u>Addendum</u>" means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

"<u>Amendment</u>" 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;

"Applicant" means the Licensee;

"Appurtenant Undertaking" means an undertaking in relation to which a deposit of Waste is permitted by a licence issued by the Board;

"Board" means the Nunavut Water Board established under the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

"<u>Effluent</u>" means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;

- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2 and the Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12;
- <u>"Fenced Metal Waste Site (FMWS)"</u> refers to the dump site introduced as the Unused Dump Site (UDS) under Amendment # 1 to Licence No. 3BM-RES1520 that was constructed in 2001 without authorization from the NWB. This dump site is used to store non-hazardous Waste including construction, demolition, and metal Waste until a new licensed facility is constructed and commissioned.
- "Geotechnical Engineer" means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;
- "Grab Sample" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;
- "Hazardous Waste" means Waste classified as "hazardous" by Nunavut Territorial or Federal legislation, or as "dangerous goods" under the *Transportation of Dangerous Goods Act*;
- "<u>High Water Mark</u>" means the usual or average level to which a body of Water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);
- <u>"ICP Scan"</u> means the laboratory method for determining trace metals in Water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);
- "<u>Inspector</u>" means an Inspector designated by the Minister under Section 85 (1) of the *Act*;
- "Licensee" means the holder of this Licence;
- "<u>Modification</u>" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;
- "<u>Monitoring Program</u>" 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;

"<u>Nunavut Agreement</u>" 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;

"Regulations" means the Nunavut Waters Regulations SOR/2013-69 18th April, 2013;

"<u>Solid Waste Facilities</u>" comprises the area and the associated structures for the containment of solid Waste as described in the Application for Water Licence renewal and associated documents filed by the Applicant on January 23, 2020;

"Spill Contingency Plan" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence. A Spill Contingency Plan should follow a format similar to that found in *Guidelines for Spill Contingency Planning* (AANDC 2007);

"<u>Waste</u>" 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" or "Waters" means waters as defined in section 4 of the Act.

#### 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*; and
- c. For the purpose of enforcing this Licence and with respect to the 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 on the Appurtenant Undertaking with the Board for review, no later than March 31<sup>st</sup> of the year following the calendar year being reported, containing the following information:
  - a. tabular summaries of all data generated under the "Monitoring Program";
  - b. summary of modifications to the "Monitoring Program";
  - c. the monthly and yearly quantities of all Waste types disposed of at the Solid Waste

- Facilities: bulky metal, hazardous, wood and soil;
- d. a summary of modifications and/or major maintenance work carried out on the Solid Waste Facilities, including all associated structures and facilities;
- e. a list of unauthorized discharges and summary of follow-up action taken;
- f. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
- g. any updates or revisions for manuals and plans (Including *Operations and Maintenance, Spill Contingency, Abandonment and Restoration*, and *QA/QC Plans*) as required by changes in operation and/or technology;
- h. a summary of any studies, reports and plans requested by the Board that relate to Waste disposal or reclamation, and a brief description of any future studies planned;
- i. summary of any inspections completed by federal or territorial authorities, geotechnical or municipal engineers, on undertakings related to Waste disposal, or reclamation activities and associated work carried out as a result of these inspections and any deficiencies; and
- j. any other details on Waste disposal requested by the Board by November 1<sup>st</sup> of the year being reported.
- 2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
- 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. The Licensee shall install flow meters or other such devices, or implement suitable methods as required under Part H, Item 1.
- 6. The Licensee shall post all necessary signs, where possible, to identify the stations of the "Monitoring Program". All signage postings shall be in the Official Languages of Nunavut, and shall be located and maintained to the satisfaction of an Inspector.
- 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/or 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. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
- 9. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.

- 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 ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

## (a) Manager of Licensing:

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

Telephone: (867) 360-6338 Fax: (867) 360-6369

Email: <u>licensing@nwb-oen.ca</u>

# **(b)** Inspector Contact:

Manager of Field Operations, CIRNA Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295 Fax: (867) 979-6445

- 12. The Licensee shall submit 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 English and Inuktitut.
- 13. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
- 14. This Licence is assignable as provided for in Section 44 of the *Act*.

### PART C: CONDITIONS APPLYING TO WATER USE

- 1. No use of Water is authorized under this Licence except for sampling purposes.
- 2. The Licensee shall implement sediment and erosion control measures prior to and maintain as required during Hamlet operations, to prevent entry of sediment into Water.

### PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall dispose of and permanently contain all solid Waste at the Solid Waste Facilities or as otherwise approved by the Board in writing.

- 2. The Licensee is authorized to deposit non-hazardous Waste generated from construction activities at the Fenced Metal Waste Site or as otherwise approved by the Board in writing.
- 3. The Licensee is not allowed to store and/or dispose the contaminated soil generated by any works, activities or undertaking related or unrelated to the Licence at the facility described in Part D, Item 2.
- 4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of Waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding Waters, unless otherwise approved by the Board in writing.
- 5. The Licensee shall provide a minimum of ten (10) days' notice to an Inspector, of the intent to open burn municipal Waste in accordance with the Government of Nunavut's Environmental Guideline for the Burning and Incineration of Solid Waste (2012), at the designated location at the Solid Waste Facilities, including the details of the types and quantity of Waste to be burned, proposed dates, protocols to be followed, ultimate disposal of residual ash and the person responsible for the activity.
- 6. The Licensee shall segregate and store all hazardous waste within the Solid Waste Facilities in such a manner as to prevent the deposit of deleterious substances into any Water, until such a time that the materials have been removed for proper disposal at an approved facility.

## PART E: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION

- 1. The Licensee shall submit to the Board for approval in writing, for-construction design drawings, stamped and signed by a qualified Engineer registered in Nunavut, at least sixty (60) days prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain Waste.
- 2. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Disposal Facilities 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;
  - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - c. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - d. the Board has not rejected the proposed Modifications.
- 3. The Modifications for which all of the conditions referred to in Part E, Item 2, have not been met, may only be carried out upon written approval from the Board.
- 4. The Licensee shall, within ninety (90) days of completion of the Modification or Construction of facilities and/or infrastructure associated with the project, submit to the

Board for review, a construction summary report along with stamped as-built plans and drawings, providing explanation to reflect any deviations from the for construction drawings, taking into account construction and field decisions and how they may affect the performance of engineered facilities.

- 5. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
- 6. The Licensee shall implement and maintain sediment and erosion control measures prior to and during activities carried out under this Part, to prevent negative impacts to Water resulting from the release of sediment and to minimize erosion.
- 7. With respect to earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed of at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter Water.
- 8. The Licensee shall only use material that is free of contaminants, for construction, operation, and maintenance activities and that is obtained from approved sources, demonstrated not to be potentially acid generating or metal leaching.

## PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

- 1. The Board has approved with the issuance of this Licence the Plan entitled "Solid Waste Operation and Maintenance Plan for Hamlet of Resolute Bay", dated May 2014. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an addendum to this Plan to include the following:
  - a. measures taken to prevent contaminants at the dumps from entering the Water, and
  - b. updated Monitoring Program information.
- 2. The Board has approved with the issuance of this Licence the Plan entitled "Solid Waste (Metals) Operation and Maintenance Plan for Hamlet of Resolute Bay", dated March 2016. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an addendum to this Plan to include the following:
  - a. measures taken to prevent contaminants at the dumps from entering the Water, and
  - b. updated Monitoring Program information.
- 3. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, a *Long-term Solid Waste Management Plan for the Hamlet of Resolute Bay*, that provides definitive objectives for building new or upgrading existing Solid Waste management infrastructure.
- 4. All Operation and Maintenance Plans developed shall be prepared in accordance with the appropriate sections of the Guidelines for the Preparation of an *Operation and Maintenance Manual for Sewage and Solid Waste Facilities in the Northwest Territories* (1996) and the *Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories* (2003).

- 5. The Board has approved with the issuance of this Licence the Plan entitled "Spill Contingence Plan, Resolute Bay Metal Waste (2001) Site", dated July 2016. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an addendum to this Plan, to include the following:
  - a. spill contingency measures for all Solid Waste Sites covered under this Licence;
  - b. clear copy of the NT-NU Spill Report form;
  - c. updated contact information for CIRNA.
- 6. An inspection of all engineered facilities related to the management of Waste shall be carried out by an Engineer at a minimum once annually following spring freshet and during open Water conditions in order to detect flow from the Solid Waste Facilities and before commissioning any engineered facility related to the management of Waste. The Engineer's report shall be submitted to the Board within sixty (60) days of the inspection, including a cover letter from the Licensee outlining an implementation plan to address each of the Engineer's recommendations.
- 7. The Licensee shall perform more frequent inspections of the engineered facilities at the request of an Inspector.
- 8. If during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. employ the appropriate contingency measures outlined in the Spill Contingency Plan referred to in Part F, Item 5; take whatever steps are immediately practicable to protect human life, health and the environment;
  - b. report the incident immediately to the NWT/NU 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. for each spill occurrence, submit to the Inspector, within thirty (30) days after initially reporting the event, a detailed report that provides the necessary information on the location (including the GPS coordinates), initial response action, remediation/clean-up, status of response (ongoing, complete), proposed disposal options for dealing with contaminated materials and any preventative measures to be implemented.
- 9. The Licensee shall, in addition to Part F, Item 8, regardless of the quantity of releases of harmful substances, report to the NWT/NU 24-Hour Spill Line if the release is near or into a Water body.

# PART G: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION OR TEMPORARY CLOSING

1. The Board has approved with the issuance of this Licence the Plan entitled "Abandonment and Restoration Plan for the Municipal Dump Site in Resolute Bay, Nunavut", dated May 07, 2010. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an addendum to this Plan to address closure and reclamation requirements for all facilities, including the Fenced Metal Waste Site.

- 2. The Licensee shall submit to the Board for approval in writing, an amendment to the Abandonment and Restoration Plan referenced in Part G, Item 1 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 the existing ones.
- 3. The Licensee shall complete all restoration work within the time schedule specified in the Plan referenced in Part G, Item 1, or as subsequently revised and approved by the Board in writing.
- 4. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
- 5. 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.
- 6. 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 backfill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
- 7. The Licensee shall submit for review, within six (6) months of Licence issuance, a Closure and Remediation Report for the site of the Solid Waste Facilities used prior to 2002. This report is to be stamped by an Engineer and describe the history of the site and its decommissioning, and also the Engineer's assessment of whether further reclamation is required at the site to mitigate the possibility of contamination to surrounding freshwater systems.

## PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

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

Monitoring Station ID	Description	Frequency	Status
1571-5	Runoff from the Solid Waste Facilities		
RES-1	Up gradient of FMWS  Down-gradient of FMWS  Monthly, during periods of flow		Active (Quality)
RES-2			
RES-3	Down-gradient of the FMWS		

- 2. The Licensee shall provide the GPS coordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where there is a deposit of Waste and all Monitoring Program Stations.
- 3. The Licensee shall confirm the locations and GPS coordinates for all Monitoring Program Stations referred to in Part H Item 1 with an Inspector.
- 4. The Licensee shall sample monthly Monitoring Stations RES-1, RES-2, RES-3 and any runoff or discharges associated with Monitoring Station 1571-5. Samples obtained from the afore-mentioned Monitoring Stations shall be analyzed for the following parameters:

Biological Oxygen Demand (BOD<sub>5</sub>) Fecal Coliforms

Polycyclic Aromatic Hydrocarbons (PAHs) pH

Benzene, Toluene, Ethyl benzene and Xylene (BTEX) Total Phenols Carbonaceous Biochemical Oxygen Demand (cBOD) Conductivity Total Organic Carbon (TOC) Total Zinc

Total Suspended Solid Oil and Grease (visual)
Nitrate-Nitrite Ammonia Nitrogen

Chloride Sulphate
Sodium Potassium
Magnesium Calcium

Total Hardness
Total Alkalinity
Total Arsenic
Total Cadmium
Total Cadmium
Total Cabelt
Total Cabelt
Total Iron

Total Cobalt Total Iron
Total Copper Total Manganese

Total Lead Total Nickel Total Mercury

- 5. The Board has approved with the issuance of this Licence the Plan entitled "Hamlet of Resolute Bay Metal Waste Site (Next to Resolute Bay Airport Sewage Lagoon), Quality Assurance/ Quality Control Plan", dated July 2016. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an updated Quality Assurance/Quality Control (QA/QC) Plan following the Guidelines For Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QAQC Plan (INAC, 1996). The updated Plan shall address QA/QC requirements for all facilities under the Licence, shall provide the Monitoring Program Stations information consistent with Part H, Item 1 of the Licence, and shall include a cover letter from an accredited laboratory confirming acceptance of the Plan for the monitoring and analyses to be performed in accordance with the Licence.
- 6. The Licensee shall conduct all sampling, sample preservation and analyses 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 a laboratory certified by the Canadian Association for Laboratory Accreditation (CALA).
- 7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.

- 8. The Licensee shall include all of the data and information required by the Monitoring Program and as requested by an Inspector within the annual report under Part B, Item 1.
- 9. Modifications to the Monitoring Program including the Monitoring Program Stations and parameters may be made only upon written approval of the Board.
- 10. Additional monitoring stations, sampling and analysis may be requested by an Inspector.