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INAC, Field Operations
P.O. Box 100
Iqaluit, NU, X0A 0H0

August 8, 2003

Mark Calliou
Senior Administrative Officer
P.O. Box 16
Cambridge Bay, NU, X0A 0C0

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Tel.: (867) 975-4298
Fax.: (867) 979-6445

NWB3CAM0207

Nunavut Water
Board

APR 28 2004

Public Registry

RE: August 4, 2003 Municipal Water Licence Report

The Water Resources Officer (WRO) appreciates the assistance provided during the tour of the Hamlet's Water use and Waste Disposal Facilities. Enclosed for your records is a copy of the Municipal Water Use Inspection Report performed on August 4, 2003. During the inspection the following observations were noted.

Part B: General Conditions

Installation of a meter at the Water Intake Facility will assist in tabulating community monthly and annual water consumption as required for the Annual Report. There was evidence of disposal of industrial waste (waste oil, solvent and fuel) at the metal dump. The WRO has informed the SAO, currently Cambridge Bay is not authorized under it's Water Licence to store hazardous waste from any commercial sources, and the Municipality must stop allowing such activities to continue, to do so would be in direct violation of the Water Licence and *Nunavut Water and Nunavut Surface Rights Tribunal Act*.

Part C: Conditions Applying to Water Use

The Water Intake Facility is well maintained (photo 1). The chlorination pump was in good condition with a backup pump located nearby (photo 3). Spill floor dry and absorbent mats were located in the Water Intake Facility (photo 4). A empty drum with a proper lid would serve as waste containment should a spill take place. Water intake for Water Intake Facility location of potable water sample (photo 2). Water Treatment plant in good condition (photo 14 & 15). Fuel tank at Treatment Plant require a berm (photo 13). Truck Fill station at Water Treatment Plant (photo 16).

Part D: Conditions Applying to Waste Disposal

The Municipal Solid Waste Disposal Facility is not fenced (photo 8). The Solid Waste Disposal Facility is operated as a burn and bury operation (photo 9). The tipping face consisted of virtually the entire facility (photo 10). The burnt waste at the dump had not

been covered with aggregate for some time. The Metal dump was not being operated properly. The Municipality of Cambridge Bay was allowing a private company Kitnuna to store hazardous waste at the metal dump (photo 11). This practice is prohibited by both the Water Licence and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The Municipality was informed by the WRO to have all Kitnuna's drums removed from the Municipal dump and taken to Kitnuna's property. The WRO attended to Kitnuna with representatives of the Municipality and informed Barry Wilson (Vice President Kitnuna Corporation) to have all of the drums of waste presently stored at the metal dump removed and taken to Kitnuna property. There was some segregation of waste practised at the metal dump (photo 12). The Sewage Lagoon discharge structure was in sound condition (photo 5). Sewage Lagoon consists of a discharge cell followed by an extensive wetland (photo 6 & 7). Prior to discharge to ocean the sewage effluent flows through the toe of the metal dump (photo 17). Sewage Lagoon effluent sample taken after the sewage effluent passes through the metal dump (photo 18).

Part E: Conditions Applying to Modifications and Construction

The Licencee shall submit plans/ drawings for Water Supply and Solid Waste Disposal Facilities at least 60 days prior to the completion of modifications. All plans shall be stamped by a qualified engineer registered in Nunavut.

Part F: Conditions Applying to Operation and Maintenance

The Licencee produced an out of date O & M plan. The Licencee shall before September 1, 2003 submit to the NWB a plan for the Operation and Maintenance of Sewage and Solid Waste Disposal Facilities in accordance with *Guidelines for the preparing an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities (October 1996)*.

Part: G Conditions Applying to Abandonment and Restoration

The WRO requests the Municipality of Cambridge Bay submit a plan to the NWB for the Abandonment and Restoration of the petroleum storage area used by Kitnuna Corporation at the metal dump. This plan shall include the removal of all waste drums to Kitnuna property. The removal and land farming of any contaminated soil. Measures implemented to restrict access to the Solid Waste Disposal Facilities, of Kitnuna corporation employees or there contractors.

Part H: Conditions Applying to the Surveillance Network Program

The WRO has identified the placement of the SNP stations at the Water Supply Intake (CAM-1), Solid Waste Disposal Facility Seepage (CAM-2) and the Sewage Lagoon Discharge (CAM-3). The Solid Waste Disposal Facility Runoff (CAM-2), Metal Dump Runoff and Sewage Lagoon Effluent are combined prior to the SNP (CAM-3).

Non-Compliance of Act or Licence

At the time of Inspection, the Hamlet of Cambridge Bay was in breach of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* for the use of water and the disposal of waste Subsection 12 (3) Where waste is deposited in contravention of this section, every person who owns or has the charge, management or control of the waste, or who caused or contributed to the deposit, shall, subject to the regulations, without delay report the deposit to an Inspector.

If there are any concerns or questions in regards to this inspection please contact me at (867) 975 4298 or bodykevichc@inac.gc.ca

Sincerely,



Constantine Bodykevich
Water Resources Officer (WRO)
INAC, Nunavut District

- cc.
- Nunavut Water Board, Gjoa Haven (Jim Wall)
 - CG&T, Iqaluit (Doug Sitland)
 - Baffin Health & Social Services, Iqaluit (Bruce Trotter)
 - EC Environmental Protection, Yellowknife (Anne Wilson)
 - INAC Water Management, Iqaluit (Michelle Mc Christie)



P.O. Box 100
Iqaluit, NU, X0A 0H0

September 10, 2003

Mark Calliou
Senior Administration Officer
P.O. Box 16
Cambridge Bay, NU X0B 0C0

Faxed to: (867) 983-2193

Deposit of Waste in Contravention of Water Licence NWB3CAM0207

- Inspector's Direction -

I, Constantine Bodykevich; duly designated Inspector pursuant to subsection 85 (1) *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, conducted, on September 4, 2003 an Inspection of Cambridge Bay metal dump.

As stipulated in subsection 12 (1) Except in accordance with the conditions of a licence, no person shall deposit or permit the deposit of waste in any other place under conditions in which the waste, may enter waters in Nunavut.

As stipulated in subsection 12 (3) Where waste is deposited in contravention of this section, every person who owns or has the charge, management or control of the waste, or who caused or contributed to the deposit, shall, subject to the regulations, without delay report the deposit to an inspector.

At the time of the drafting of this letter Cambridge Bay was in contravention of subsection 12 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.

On September 4, 2003 Mark Calliou Senior Administrative Officer
P.O. Box 16 Cambridge Bay was directed to:

1. Insure the removal of all waste oil, waste fuel and associated drums that have been placed in the Municipal metal dump by the Kitnuna Corporation and or its agents. Have full drums of fuel properly sealed with all bungs in place. Place and label fuel in proper storage area.

As such, under the authority vested in me pursuant to subsection 87 (1) (ii) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, I hereby direct , Mark Calliou Senior Administrative Officer Cambridge Bay to immediately take all reasonable measures to prevent further unauthorized deposits of fuel, waste oil and associated products from entering the Cambridge Bay Solid Waste Facilities. No hazardous waste shall be transferred from (Kitnuna Corporation the Nunavut Power Corporation or any other industrial generator of Hazardous Waste) to Cambridge Bay Waste Treatment Facilities (dump, metal dump and sewage lagoon) without the written authorization of the Nunavut Water Board and any other permitting required for the Transportation and Storage of Hazardous Waste.

- ☐ Immediately insure remove any 45 gallon drums of waste oil, waste fuel of other waste that have been deposited at the Cambridge Bay metal dump by Kitnuna Corporation employees or subcontractors is returned to Kitnuna Corporation property.
- ☐ Install a lockable gate across the entrance to the metal dump to limit access to the metal dump.
- ☐ Restrict access to the metal dump. Keep locked during hours when supervision not available.

Failure to comply fully or in part with an **Inspector's Direction** constitutes a offence under subsection 90 (1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and entails, upon summary conviction, a fine of \$100,000 or to imprisonment for a term of one year, or both. Further pursuant to subsection 90 (4) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, each day on which the **Inspector's Direction** is not complied with shall be considered a separate offence.

If you have any questions or concerns, please do not hesitate to contact me at (867) 975-4298 or bodykevichc@inac.gc.ca.

Sincerely,

A handwritten signature in black ink, appearing to be 'CB' followed by a long horizontal flourish.

Constantine Bodykevich
Water Resources Officer,
INAC - Nunavut District
P.O. Box 100, Iqaluit, NU, X0A 0H0

cc. -Nunavut Water Board, Gjoa Haven

Cambridge Bay Inspection 2003



Photo 1. Water Intake Facility at water Lake.

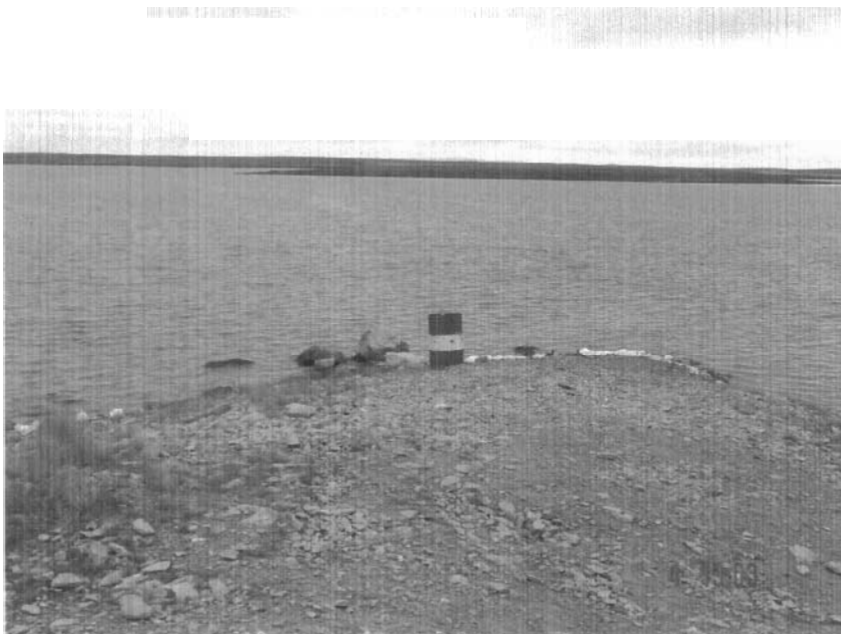


Photo 2. Water Intake Facility, water sample N 69.0818.2 W 105.0350.8..

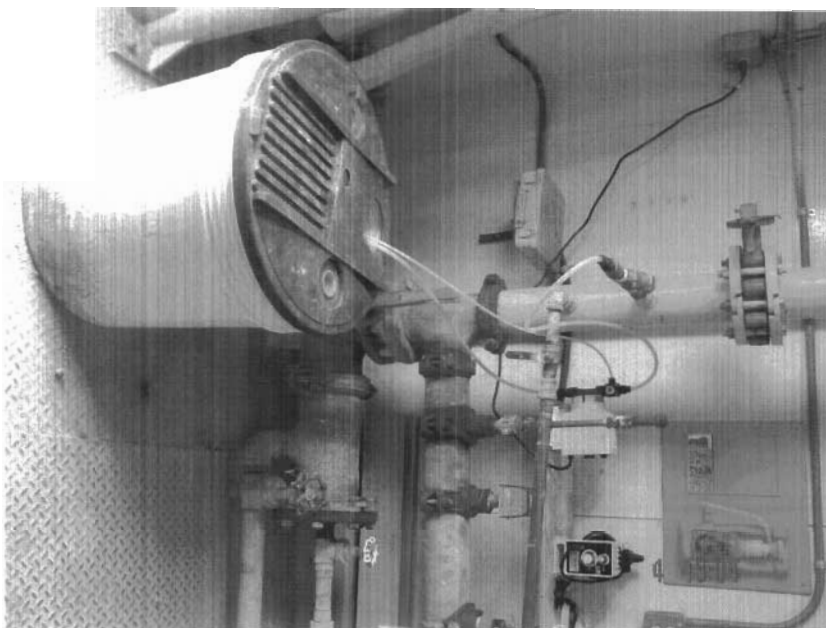


Photo 3. Chlorination system at Water Intake Facility.



Photo 4. Spill material in Water Intake Facility.



Photo 5. Sewage truck discharge structure at Sewage Lagoon.



Photo 6. Main cell in sewage lagoon.



Photo 7. Sewage Lagoon truck discharge structure.



Photo 8. Solid Waste Disposal Facility, from sewage lagoon.



Photo 9. Sewage truck at lagoon sewage truck discharge structure.



Photo 10. Tipping face of dump extends over entire dump.



Photo 11. Drums of waste oil, fuel solvent and unidentified liquids from Kitnuna Corporation illegally stored at metal dump.



Photo 12. Metal dump some segregation of waste practised.



Photo 13. Fuel tanks at Water Treatment Plant require a berm.



Photo 14. Control panel at Water Treatment Plant.

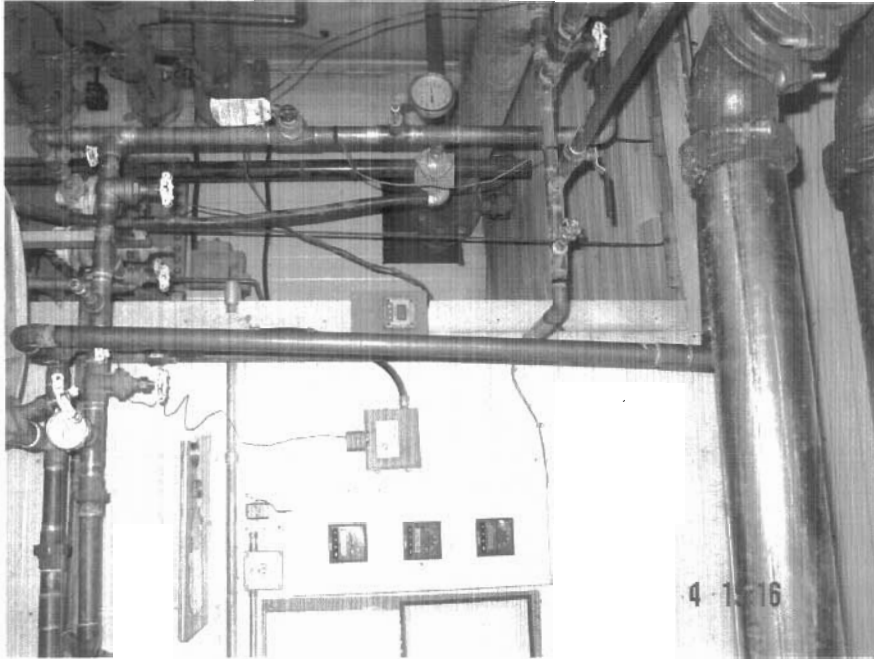


Photo 15. Interior of Water Treatment Plant



Photo 16. Water truck at Water Treatment Plant.



Photo 17. Sewage effluent seen flowing through the metal dump
sewage effluent sample N 69.0725.3 W 105.0124.3.



Photo 18. Sewage effluent prior to entering the ocean.

MUNICIPAL WATER USE INSPECTION REPORT

Date: August 4, 2003

Licensee Rep. (Name/Title): Mark Calliou/ SAO

Licensee: Hamlet of Cambridge Bay

Licence No.: NWB3CAM0207

WATER SUPPLY

Source(s): Water Supply Lake

Quantity used:

Owner:/Operator: Hamlet of Cambridge Bay

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Intake Facilities: A

Storage Structure: A

Treatment Systems: A

Chemical Storage: A

Flow Meas. Device: NA

Conveyance Lines: A

Pumping Stations: A

Comments: The Water Intake Facility is well maintained. The chlorination system was operational with a backup chemical pump on standby. There was floor dry and absorbent pads present in the pump room. Considerable corrosion was observed in the vicinity of the chlorine system. The water treatment plant was in good condition considering work was being undertaken to replace fire protection equipment.

WASTE DISPOSAL

Sewage:

Sewage Treatment System (Prim./Sec/Ter.): Secondary; over land to ocean.

Natural Water Body: X

Continuous Discharge (land or water): water

Seasonal Discharge: X

Wetlands Treatment: X

Trench:

Solid Waste:

Owner/Operator: Hamlet of Cambridge Bay

Landfill:

Burn & Landfill: X

Other:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Discharge Quality: Sampled

Decant Structure: NA

Erosion: A

Discharge Meas. Device: NIL

Dyke Inspection: NA

Seepages: U

Dams, Dykes: U

Freeboard: NA

Spills: NIL

Construction: NA

O&M Plan: U

A&R Plan: NA

Periods of Discharge: A

Effluent Discharge Rate: Not Measured

Comments: The sewage Lagoon flows through the metal dump. This is not acceptable. The Licencee should explore options to remedy this situation. The Solid Waste Disposal Facility is not fenced. A fence should be installed to contain waste within the facility. The Licencee has allowed industrial waste to be stored at the metal dump. This is in contravention of the Licence and should not be allowed to continue.

FUEL STORAGE

Owner/Operator:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Berms & Liners: NI

Water within Berms: NI

Evidence of Leaks: NI

Drainage Pipes: NI

Pump Station & Catchment Berm: NI

Pipeline Condition: NI

Not Applicable: NI

Condition of Tanks: NI

SURVEILLANCE NETWORK PROGRAM (SNP)

Samples Collected

Hamlet: NIL

INAC: potable water, sewage effluent

Signs Posted

SNP: NIL

Warning: None Observed

Records & Reporting: Not Applicable

Geotechnical Inspection: Not Applicable

Non-Compliance of Act or Licence: At the time of inspection the Hamlet of Cambridge Bay was in breach of their Water Licence and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* subsection 12 (1) except in accordance with the conditions of a Licence, no person shall deposit or permit the deposit of waste in any other place under conditions in which waste may enter waters in Nunavut.

Constantine Bodykevich

Inspector's Name

Inspector's Signature

Peter Kusugak

Field Operations Manager Name

Manager's Signature