



**Indian and Northern
Affairs Canada**
www.inac.gc.ca

North Mackenzie
P.O. Box 2100
Inuvik, NT X0E 0T0

**Affaires Indiennes
et du Nord Canada**
www.ainc.gc.ca

Telephone: (867) 777-8900
Fax: (867) 777-2090

December 1, 2009

Northwest Territories Water Board
P.O. Box 2531
Inuvik, NT X0E 0T0

Attn: Mike Harlow, Executive Director

RE: Municipal Water Licence (N7L3-1619)

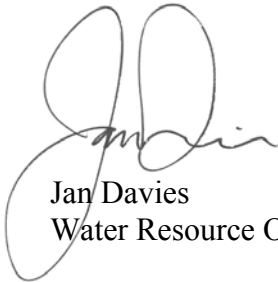
Dear Mr. Harlow,

Please find the enclosed Inspection Report for your review and/or records.

An electronic copy (un-editable Adobe pdf.) has also been provided by e-mail.

If you have any questions or concerns regarding the enclosed, and/or if additional information is required please contact me at 867-777-8909.

Sincerely,



Jan Davies
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Water Licence Inspection Report and Cover Letter (6 pages)



**Indian and Northern
Affairs Canada**
www.inac.gc.ca

North Mackenzie District
P.O. Box 2100
Inuvik, NT, X0E 0T0

**Affaires Indiennes
et du Nord Canada**
www.ainc.gc.ca

Telephone: 867 777-8900
Fax: 867-777-2090

December 1, 2009

Hamlet of Paulatuk
P.O. Box 98
Paulatuk, NT, X0E 1N0

Attn: Debbie Gordon-Ruben

RE: Municipal Water Licence (N7L3-1619)

Dear Ms. Gordon-Ruben,

An inspection was conducted of the Municipal Water Supply and Waste Disposal Facilities on November 4, 2009. Enclosed is a copy of the Municipal Water Licence Inspection Report.

While there have been some visible improvements since the last inspection like waste segregation signage and better maintenance on the sewage discharge chute, there were a number of violations as depicted on page three of the Inspection Report. Please review the concerns throughout the Inspection Report.

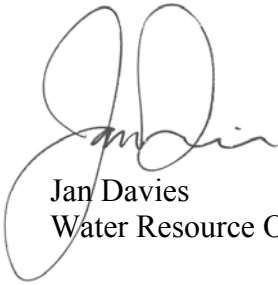
Upon review of previous years Inspection Reports it is apparent that many of the violations and concerns outlined in the Inspection Report are consistent with those in previous years. While it is clear that progress is being made on certain issues, there are terms and conditions of your Water Licence that are being neglected resulting in non-compliance/violations. Please address the aforementioned items as INAC considers non-compliance of Water Licences a serious matter.

Please note that it is the Hamlet's responsibility to ensure compliance with all of the terms and conditions of its Water Licence. INAC looks forward to working with you as much as possible to achieve compliance.

A copy of this report will be sent to the Northwest Territories Water Board for their review and/or public records.

If you have any questions, please contact me at 867-777-8909.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jan Davies', with a large, stylized flourish on the left side.

Jan Davies
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Water Licence Inspection Report (4 pages)
Municipal Solid Wastes Suitable for Open Burning Document



WATER LICENCE INSPECTION FORM

DATE:	November 4, 2009	COMPANY REP:	Debbie Gordon-Ruben
LICENCEE:	Hamlet of Paulatuk	LICENCE #:	N7L3-1619

WATER SUPPLY

Source:	New Water Lake	Quantity Used:	9,981 m ³
Owner/Operator:	Hamlet of Paulatuk		

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Intake Facilities	A ^{1,4,5}	Storage Structures	N/A	Treatment Systems	A ^{1,5}	Chem. Storage	A
Flow Meas. Device	A	Conveyance Lines	A	Pumping Stations	A ^{1,5}		

Comments:

Concerns:

1. Water Treatment Plant (WTP) needs to be secure against unauthorized access. Generator room was locked however the Water Treatment Plant was unlocked.
2. During last years Inspection on October 15, 2008 there difficulties with the heat trace on the intake pipe. Only one of two heat traces working and have to switch them. The water truck fill pipe needed maintenance to better insulate, cover pipe and secured against weather. Continue to ensure these items are well maintained as it can lead to further problems that can then lead to emergencies and contingency measures end up being used.
3. Ensure the Generator room continues to be clean despite oil changes. There was oil present in the drip tray under the generator.
4. It is evident that ATVs are in the vicinity of the WTP. Boulders and/or a barricade should be installed to protect the intake line from damage. To prevent ATVs from being in the immediate area and/or on the lake it might be prudent to control access by instituting a bylaw to protect the Water Intake Facility infrastructure. This would also protect against potential spills that could damage the Hamlet's water supply.
5. See Fuel Storage Section for additional concerns.

Notes:

- Water Treatment Plant facilities were clean

WASTE DISPOSAL

Well Waste	Off-Site Removal	N/A	Drilling Sump	N/A	Downhole	N/A	Land spread	N/A
Sewage	Sewage Treatment System (primary, secondary, or tertiary)				Primary			
	Natural Water Body	check		Continuous Discharge (land or water)			Land	
	Seasonal Disch.	N/A		Wetlands Treatment	check		Trench	N/A
Solid Waste	Owner/Operator:	Hamlet of Paulatuk						
	Landfill	check		Burn & Landfill	Conditionally acceptable		Other	N/A

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Discharge Quality	A ¹	Construction	N/A	Disch. Meas. Dev.	A	Freeboard	N/A
Decant Structures	N/A	O&M Plan	U ⁸	Dams, Dykes	N/A	Seepages	N/A
Dyke Inspections	N/A	A&R Plan	N/A	Erosion	U ³	Spills	N/I
Periods of Discharge	Continuous			Effluent Discharge Rate		Natural Outflow	

Comments:

Concerns:

1. Hamlet has not been sampling on a regular basis as per Surveillance Network Program requirements. Sewage Disposal Facility (SDF) discharge samples were taken by Environment Canada – Mary Kelly during July 23-27 and September 17-21, 2009. Discharge quality was acceptable from the limited analysis that was completed according to SNP requirements in the Water Licence. See Surveillance Network Program section.
2. A lot of work has been done to move various barrels (some with fuel/oil etc) to a specific area (Figure 1 and 2). The current location is not bermed but the great effort is noted. It might be prudent for Hamlet Staff to build a berm around the few large groups of hazardous waste such as barrels, batteries etc. and contain them where they are as this material is located throughout the landfill. This would save on time and work involved to move all the material. In the containment/storage areas these materials need to be collected, prepared and shipped out for proper disposal at an approved facility. There is a clear indication that many containers are leaking. There needs to be regular checks for leaks and subsequent repairs/containment to prevent spills and further contamination of the environment.

3. The sewage discharge chute had work done to construct a better truck tire stop but sewage still is bypassing and continues to cause erosion around the chute. The chute needs to have a funnel like front to prevent bypassing.
4. It was noted that new signage was present for the household waste area, sewage lagoon, honey bag pit and bulky metal waste. The Solid Waste Disposal Facility (SWDF) still needs a sign including other areas to further increase public guidance and waste segregation. Besides the current signs, additional signs should be posted for but not limited to the following areas: waste tires, waste appliances(washers/dryers, etc.), wood waste, waste vehicles and skidoos, empty drums, and hazardous waste(waste oil, batteries etc) to help the public further segregate waste.
5. Burning of non-segregated Municipal Solid Waste (MSW) is still occurring (see Figure 3). This remains an unacceptable option for the management of MSW. Wastes that are conditionally suitable for open burning are paper products, paperboard packaging and untreated wood wastes according to the document from the GNWT Department of Environment and Natural Resources titled 'Municipal Solid Wastes Suitable for Open Burning'(Please see enclosed document). A designated burning area for these materials is recommended to ensure proper control.
6. The presence of contaminated soil at the Solid Waste Disposal Facility (SWDF) without proper containment is unacceptable and could lead to further contamination (see Figure 4). There needs to be a geotextile/liner under the contaminated soil pile with a berm to minimize the potential for migration of contaminants into any waters. The Hamlet needs to provide proper containment for the contaminated soil.
7. The high berms at the SWDF are an effective way to control windblown debris. The fence around the current cell needs to be repaired in addition to regular compaction and covering of waste with fill material to better control windblown debris.
8. It is apparent that the Operation and Maintenance Plan(O&M Plan) needs to be updated and components of the approved Plan are not being followed as per Part H: Conditions Applying to Operation and Maintenance, Item 2, of the Water Licence. Ensure that Hamlet Personnel are familiar with the approved O&M Plan and that it is being properly implemented. A copy of the approved O&M Plan must be onsite and readily available.
9. Ensure the old SWDF cells are contoured to prevent water ponding on the surface as this will aid against water contamination and leachate issues.

Note:

- As per the NWT Water Boards September 14, 2005 letter the O&M Plan dated August 2004 by Dillon Consulting Limited was approved

FUEL STORAGE

Owner:	Hamlet of Paulatuk	Operator:	Hamlet of Paulatuk	Condition of tanks:	Good
Berms & Liners	Good	Water within Berm:	None ²	Evidence of Leaks:	None
Drainage Pipes	Good	Pump Station and Catchment Berm	N/A		
Pipeline Condition	Fair ¹	Not Applicable:	N/A		

Comments:

Concerns:

1. Flex pipe is still mis-aligned. Regular monitoring of the position of the fuel tank and associated piping is critical to preventing failure in the future. Re-alignment of the tank and the fuel line would be pro-active to preventing a spill. Any spill related to structural failure would be an immediate risk to the Hamlet's Water Supply.
2. Last years Inspection on October 15, 2008 noticed water in the fuel storage tank berm. As a preventative measure it is recommended that regular snow removal or a roof/enclosure be constructed over the fuel storage tank to prevent accumulation of snow leading to water inside the bermed area.

SURVEILLANCE NETWORK PROGRAM

Samples Collected Hamlet	No records of any samples taken as per SNP requirements. ¹				
Samples Collected DIAND	Samples were not taken during inspection.				
Signs Posted: SNP	None apparent during inspection ⁴	Warning	Present at Water Treatment Plant and Sewage Disposal Facility. Signage needed warning of Solid Waste Disposal Facility ⁵		
Record & Reporting	None available. Annual Reports are due as per Water Licence Criteria. ³				
Geotechnical Inspection	N/A				

Concerns:

1. Hamlet of Paulatuk is required to conduct sampling as per Surveillance Network Program criteria Part B: General Conditions, Item 2, of the Water Licence to monitor water quality at the outflow from the Sewage Disposal Facility.
2. Sewage Disposal Facility (SDF) discharge samples taken by Environment Canada – Mary Kelly during July 23-27 and September 17-21, 2009. Due to limitations at the time Total Suspended Solids and Ammonia-Nitrogen were the only parameters listed in the Surveillance Network Program (SNP) that were sampled in addition to a whole range of other parameters including a wide variety of metals. Discharge quality was acceptable from the limited analysis that was completed according to SNP requirements in the Water Licence.
3. Annual Reports are to be submitted as per Part B: General Conditions, Item 1, of the Water Licence. Annual reports from 2006, 2007 and 2008 have not been submitted.
4. Signage is required by Part B: General Conditions, Item 7, of the Water Licence for the Surveillance Network

Program to ensure consistent sampling locations.

5. To promote awareness and warn the public, signage is required at the Solid Waste Disposal Facility as per Part B: General Conditions, Item 8, of the Water Licence.

Violations of Act of Licence:

Part B: General Conditions, Item 1,

"The Licensee shall file an Annual Report with the Board not later than March 31st of the year following the calendar year reported..."

Part B: General Conditions, Item 2,

"The Licensee shall comply with the "Surveillance Network Program" annexed to this Licence, and any amendment to the said "Surveillance Network Program" as may be made from time to time, pursuant to the conditions of this Licence."

Part B: General Conditions, Item 7,

"The Licensee shall, within sixty (60) days of the issuance of this Licence, post the necessary signs, where possible, to identify the stations of the "Surveillance Network Program". All postings shall be located and maintained to the satisfaction of an Inspector."

Part B: General Conditions, Item 8,

"The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate areas to inform the public of Water Supply and Waste Disposal Facilities. All postings shall be located and maintained to the satisfaction of an Inspector."

Part H: Conditions Applying to Operation and Maintenance, Item 2,

"The Licensee will implement the approved Plan to the satisfaction of an Inspector."

Inspector's Signature:

A handwritten signature in black ink is written over a horizontal line. The signature is stylized and appears to be the name 'J. J. J.' or similar, with large loops and a cursive style.



WATER LICENCE INSPECTION REPORT Pg. 4 (Continued)

Date:	November 4, 2009	Licence #:	N7L3-1619
-------	------------------	------------	-----------

Inspection Images:

Figure 1

Hill area before barrels were moved there. Inspection picture taken September 25, 2007.



Figure 2

Hill area after barrels were moved there. Hazardous waste storage area needs bermed containment. Inspection picture taken November 4, 2009.



Figure 3

Waste cell at Solid Waste Disposal Facility where unsegregated burning is occurring. Note burnable material is paper, untreated wood and cardboard.



Figure 4

Contaminated soil piles at Solid Waste Disposal Facility without any containment present.

