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April 7, 2009

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

**Attn: Debbie Gordon-Ruben**

**RE: Municipal Water Licence (N7L3-1619)**

Dear Ms. Debbie Gordon-Ruben,

An inspection was conducted of the Municipal Water Supply and Waste Disposal Facilities on October 15, 2008. Enclosed is a copy of the Municipal Water Licence Inspection Report.

While there have been some improvements since the last inspection like discontinuing the burning of general solid waste, there were a number of violations as depicted on page two of the Inspection Report. Many of the violations are administrative in nature or minor modifications and can be dealt with promptly. Please review the concerns throughout the Inspection Report.

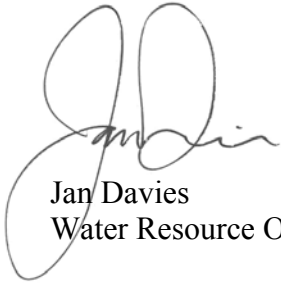
Upon review of previous years Inspection Reports it is apparent that many of the violations and concerns outlined in the Inspection Report are consistent with violations in previous years. While it is clear that progress is being made on certain violations and issues, there are terms and conditions of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

Please note that it is the Hamlets 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.

Pending your review, a copy of this report will be sent to the Northwest Territories Water Board on **April 22, 2009** for their review and/or public records. If no response is received by this date we will assume you have no concerns.

If you have any questions, please contact me at 867-777-3662.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jan Davies', with a large, stylized initial 'J'.

Jan Davies  
Water Resource Officer

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

Enclosure: Water Licence Inspection Report (3 pages)



## WATER LICENCE INSPECTION REPORT

<b>DATE:</b>	October 15, 2008	<b>COMPANY REP:</b>	Debbie Gordon-Ruben
<b>LICENCEE:</b>	Hamlet of Paulatuk	<b>LICENCE #:</b>	N7L3-1619

### WATER SUPPLY

Source:	New Water Lake	Quantity Used:	<11,000 m <sup>3</sup>
Owner/Operator:	Hamlet of Paulatuk		

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

Intake Facilities	A <sup>2</sup>	Storage Structures	N/A	Treatment Systems	A	Chem. Storage	A <sup>1</sup>
Flow Meas. Device	A	Conveyance Lines	A <sup>2</sup>	Pumping Stations	A <sup>3</sup>		

Comments:

Concerns:

1. During inspection it was noticed that respirator cartridges were stored in the same cabinet as the chemicals. This could compromise the effectiveness of the respirator cartridges so they should be stored separately.
2. Difficulties with heat trace on intake pipe. Only one of two heat traces working and have to switch them.
3. Noticed that the water truck fill pipe needs maintenance to better insulate, cover pipe and secured against weather
4. See Fuel Storage Section for additional concerns.

Notes:

- Water Treatment Plant secure and facilities clean

### WASTE DISPOSAL

Sewage	Sewage Treatment System (primary, secondary, or tertiary)		primary				
	Natural Water Body	✓	Continuous Discharge (land or water)		land		
	Seasonal Disch.	N/A	Wetlands Treatment	✓	Trench	N/A	
Solid Waste	Owner/Operator:		Hamlet of Paulatuk				
	Landfill	✓	Burn & Landfill	Conditionally acceptable	Other	N/A	

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

Discharge Quality	A <sup>1</sup>	Construction	U <sup>3</sup>	Disch. Meas. Dev.	A	Freeboard	N/A
Decant Structures	N/A	O&M Plan	U <sup>10</sup>	Dams, Dykes	N/A	Seepages	N/A
Dyke Inspections	N/A	A&R Plan	N/A	Erosion	U <sup>4</sup>	Spills	A <sup>5</sup>
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 INAC Water Resources Division – Catherine Mallet and discharge quality was acceptable at the time of inspection.
2. Signage needed for identification of Solid Waste Disposal Facility (SWDF) and SDF. Waste is not always properly segregated. Signs were installed at one time but have since been vandalized. Signage is still needed to further increase public guidance and waste segregation. Signs should be posted for but not limited to the following areas: domestic garbage, waste tires, waste appliances(washers/dryers, etc.), wood waste, bulky metal wastes, waste vehicles and skidoos, empty drums, honey bag pit, and hazardous waste(waste oil, batteries etc).
3. At the time of inspection contaminated soil was at the SWDF. The presence of contaminated soil occurred as a modification to the SWDF and the Operation and Maintenance Plan without notification of the Northwest Territories Water Board. The presence of the contaminated soil at the SWDF without proper containment is unacceptable and could lead to further contamination. The Hamlet needs to comply with the Water Licence Part E: Conditions Applying to Modifications. Contaminated soil needs proper containment as per Water Licence Part G: Conditions Applying to Construction.
4. Sewage is bypassing the front of the sewage discharge chute and causing erosion all around the chute. The chute needs to: have a funnel at the front to prevent bypassing, a longer chute or move closer to the lagoon, have a turn around pad extended with truck tire stops(blocks or curb). (see Figure 1)
5. Hazardous waste such as used oil and batteries needs a bermed area to ensure proper containment. These materials need to be collected and shipped out for proper disposal at an approved facility. Consequently this material is located throughout the landfill. There is a clear indication that many containers are leaking.
6. Barrels and contained materials need proper disposal. (see Figure 2)

7. A dead animal pit needs to be available for waste animal parts.
8. Fence around current SWDF cell needs to be repaired to control windblown debris.
9. Old SWDF cells need to be contoured to prevent water ponding on the surface.
10. 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. 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.

Note:

- General burning of solid waste has been discontinued. Reminder that untreated wood, paper, cardboard can be burned. A designated burning area for these materials is recommended.
- 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:	Yes *see below	Evidence of Leaks:	None
Drainage Pipes	N/A	Pump Station and Catchment Berm	N/A		
Pipeline Condition	Fair *see below	Not Applicable:	N/A		

Comments:

Concerns:

1. Flex connector is showing signs of being out of alignment. It is time to re-align the tank and fuel line fittings. If there is more movement of the pipe and connection there could be a spill into the Hamlet’s water supply. (see Figure 3)
2. Frozen water was present inside the berm for the fuel storage tank. The ice could rupture a bottom fitting for the fuel tank and cause a spill. The ice already decreases the containment capacity of the berm. (see Figure 4)

Notes:

- Recommend regular snow removal or a roof/enclosure constructed over fuel storage tank to prevent further water inside bermed area.

**SURVEILLANCE NETWORK PROGRAM**

Samples Collected	Hamlet	No records of any samples taken as per SNP requirements.	
	DIAND	Samples were taken from lagoon discharge and before entry into ocean by INAC Water Resources Division – Catherine Mallet.	
Signs Posted: SNP	None present, Licensee reminded to post	Warning	One located at Water Treatment Plant. Signs needed at all other facilities
Record & Reporting	None available. Annual Reports are due as per Water Licence Criteria.		
Geotechnical Inspection	N/A		

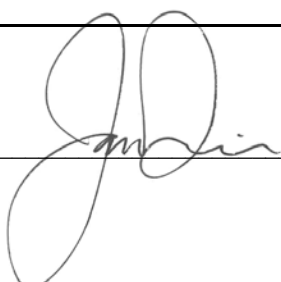
Comments:

Concerns:

1. Hamlet is required to be sampling as per the Surveillance Network Program to monitor discharge quality from the Sewage Disposal Facility.
2. Ensure Annual Reports are submitted as per Water Licence Criteria Part B1.

<b>Non-Compliance of Act or Licence:</b>	Violations of Water Licence N7L3-1619 1. Part B1, 2006, 2007, 2008 Annual Report not submitted. 2. Part B2, Licensee shall comply with the "Surveillance Network Program". 3. Part B7, Post signs to identify the stations of the "Surveillance Network Program". 4. Part B8, Post signs to inform the public of Waste Disposal Facilities. 5. Part D4, Honey bag pit not identified at the Solid Waste Disposal Facility (SWDF). 6. Part E1, 2, 3, Modification of SWDF to include Hydrocarbon Contaminated Soil Area. 7. Part G1 Hydrocarbon Contaminated Soil Area needs proper design and containment. 8. Part H2 Operation and Maintenance Plan needs to be properly implemented.
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Inspector’s Signature:





### WATER LICENCE INSPECTION REPORT Pg. 3 (Continued)

Date:	October 15, 2008	Licence #:	N7L3-1619
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**Inspection Images:**

**Figure 1**

Sewage chute needs: a funnel for the front, to empty directly into the lagoon and truck tire stops.



**Figure 2**

Barrels and contained material need proper disposal.



**Figure 3**

Flex connector is out of alignment. Tank and pipe need to be re-aligned. Further movement could cause a spill.



**Figure 4**

Frozen ice in bottom of berm threatens to break fitting on the base of the Fuel Storage Tank at Water Treatment Plant.

