



**Indian and Northern  
Affairs Canada**  
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February 21, 2011

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

**Attn: Mike Harlow, Executive Director**

**RE: Municipal Water Licence (N7L3-1531)**

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)

What Goes Up Must Come Down - Open Burning of Garbage Is Harmful  
to Your Health and the Environment Document



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February 21, 2011

Hamlet of Sachs Harbour  
General Delivery  
Sachs Harbour, NT X0E 0Z0

**Attn: Jackie Coulter, SAO**

**RE: Municipal Water Licence (N7L3-1531)**

Dear Ms. Coulter,

An inspection was conducted of the Municipal Water Supply and Waste Disposal Facilities on September 21, 2010. Enclosed is a copy of the Municipal Water Licence Inspection Report.

While the Hamlet's submission of the Spill Contingency Plan and efforts to maintain the Sewage Disposal Facilities are to be commended, there were a number of violations as depicted on page 3 of the Inspection Report. Please review and address the concerns throughout the Inspection Report.

Progress is being made on certain issues, however, there are terms and conditions of your Water Licence that are being neglected resulting in non-compliance/violations. 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. Please address the aforementioned items as Indian and Northern Affairs Canada considers non-compliance of Water Licences a serious matter.

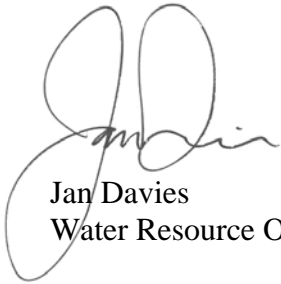
Please note the document titled "What Goes Up Must Come Down - Open Burning of Garbage Is Harmful to Your Health and the Environment" by Environment Canada, for your reference. As discussed previously open burning of non-segregated Municipal Solid Waste (MSW) remains an unacceptable option for the management of MSW. According to the GNWT Department of Environment and Natural Resources, MSW suitable for open burning are paper products, paperboard packaging and untreated wood wastes only.

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.

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 initial 'J'.

Jan Davies  
Water Resource Officer

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

Enclosure: Water Licence Inspection Report (4 pages)  
What Goes Up Must Come Down - Open Burning of Garbage Is Harmful  
to Your Health and the Environment Document



WATER LICENCE INSPECTION FORM

DATE:	September 21, 2010	COMPANY REP:	Jackie Coulter
LICENCEE:	Hamlet of Sachs Harbour	LICENCE #:	N7L3-1531

WATER SUPPLY

Source:	Water Lake	Quantity Used:	3,072 m <sup>3</sup>
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Owner/Operator: GNWT-MACA / Hamlet of Sachs Harbour

Indicate:		A - Acceptable		U - Unacceptable		N/A - Not Applicable		N/I - Not Inspected	
Intake Facilities	A	Storage Structures	A	Treatment Systems	A	Chem. Storage	A		
Flow Meas. Device	A	Conveyance Lines	A	Pumping Stations	A				

Comments:

Concerns:

- The intake pipe had new material placed on it to cover the work done previously with the new intake. There appears to be erosion occurring where fill has been added on the intake line that’s bordered by the water. This needs to be monitored to ensure there is no risk to the intake line.

Notes:

- Things seemed to be running smoothly. The Water Supply Facility looked clean and organized.
- Previously there were plumbing issues with the intake piping located in the intake facility but those have since been dealt with.
- Liquid chlorine is now being used.

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 Sachs Harbour					
	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>2</sup>	Construction	N/A		Disch. Meas. Dev.		A	Freeboard	N/A
Decant Structures		N/A	O&M Plan	N/A		Dams, Dykes		N/A	Seepages	N/A
Dyke Inspections		N/A	A&R Plan	N/A		Erosion		A <sup>4</sup>	Spills	N/I
Periods of Discharge		Does not appear to discharge, unless spring highwater <sup>1</sup>				Effluent Discharge Rate			Natural outflow <sup>1</sup>	

Comments:

Concerns:

1. Sewage is deposited in the sewage lagoon at a rate estimated to be 7000L about 2-3 times a day, 3 times a week. The Sewage Disposal Facility (SDF) is a natural water body and is the lowest elevation in the immediate area and does not immediately appear to discharge. However there are indications from staff that it might discharge when there is excess water during the spring or exfiltration is possible through the active layer/ground water surrounding the sewage lagoon. The opposite side of the SDF from the sewage discharge chute would be where any discharge would occur as this is a low lying wetland area.
2. At the time of inspection the Hamlet had not collected any water samples as per Surveillance Network Program requirements, so discharge quality was unknown from lack of sampling by the Hamlet. See Surveillance Network Program section.
3. The Hamlet needs to comply with Part D: Conditions Applying to Waste Disposal, Section 8 of the Water Licence and ensure proper containment for contaminated soil. Contaminated soil from an old POL tank farm spill on the beach in front of the Hamlet has been excavated by Biogenie S.R.D.C. Inc and deposited at the Solid Waste Disposal Facility(SWDF) with little treatment. The details surrounding this contaminated soil are unknown as little information has been provided to the Hamlet. Apparently some soil samples were taken, the results should be obtained, reviewed and the soil material properly managed. There needs to be a berm to prevent migration of contaminants into water and should include a geotextile/liner under the contaminated soil pile. The presence of contaminated soil at the SWDF without proper containment is unacceptable and could lead to further contamination.
4. Erosion is occurring at the sewage discharge chute. New material had been added but erosion is evident. The distance from the truck to the start of the chute needs to be properly measured out and the truck tire stop/barricade installed/maintained (see Figure 1). This would prevent further erosion of material into the sewage lagoon which

decreases efficiency and costs the Hamlet to repair it and material to replace it. Continued maintenance is needed to prevent further erosion and subsequent damage to the sewage discharge chute.

5. Solid Waste Disposal Facility (SWDF) appears to be filling up. The waste cell is almost full. There needs to be planning for another waste cell. This will allow the structure to be built and preparation of a cell before one is needed. Amendments/modifications/construction conditions as per Part F and G of the Water Licence might be required, so there should be communication with the Northwest Territories Water Board on Hamlet intentions. In addition, proper abandonment and restoration procedures as per Part H: Conditions Applying to Abandonment and Restoration in the Water Licence, will be required.

6. Further waste segregation is needed. Signage is needed to improve waste segregation and public guidance. 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, empty drums, honey bag pit, and hazardous waste(waste oil, batteries etc). There had been good waste segregation at one time but has not been maintained thus various waste streams are getting mixed. There needs to be improved management of the SWDF as material is being piled/collected where its convenient and not where it should go. Thus space is not being used efficiently.

7. The current solid waste cell needs to be properly maintained and covered which would assist with preventing windblown debris. High berms and fencing at the SWDF are an effective way to control windblown materials. Debris needs to continue to be cleaned up as it is a part of regular maintenance. A clean and organized facility in which the public provides assistance is further aided by cleaning up and preventing windblown debris.

8. Currently there are many barrels and batteries present at the SWDF that need to be in a bermed temporary storage area as per Part D: Conditions Applying to Waste Disposal, Section 9, of the Water Licence. 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. This would save on time and work involved to move all the material. In the containment/storage areas these materials need to be collected, consolidated, prepared and either shipped to an approved facility for disposal or burned (fuel and/or oil) in approved equipment. This will ultimately maintain the SWDF in a well managed state that encourages public participation and assistance.

There needs to be regular checks at the Solid Waste Disposal Facility (SWDF) for leaks and subsequent repairs including containment of leaking drums, containers, materials to prevent spills and further contamination of the environment. Ensure drums are secure, contained, properly segregated and fluids are unable to leak from containers (strong drum, bung in place, no holes). If required, fluids should be transferred to secure and approved containers.

- Notes:
- The Spill Contingency Plan was submitted by the Hamlet of Sachs Harbour on February 9, 2011.
  - The sewage lagoon/turn around pad area appeared clean and the coloration of the sewage lagoon was a clear dark green colour which is an indicator of good performance.
  - No burning was observed. There were discussions with Hamlet staff about why it is an unhealthy practice. The Environment Canada document titled ‘What Goes Up Must Come Down - Open Burning of Garbage Is Harmful to Your Health and the Environment’ was provided. The staff were encouraged to properly segregate the waste into acceptable burnable and non-burnable waste. Wastes that are conditionally acceptable for open burning are paper products, paperboard packaging and untreated wood wastes in accordance with the guideline Municipal Solid Wastes Suitable for Open Burning, developed by the GNWT Department of Environment and Natural Resources.
  - Hamlet has a waste oil burner which is not being used
  - **A Sewage Treatment Plan is due June 30, 2011.**
  - **A Municipal Solid Waste Operations and Maintenance Plan (O&M Plan) is due June 30, 2012. Please note this will be the first time an O&M Plan has been available for the Hamlet of Sachs Harbour.**

FUEL STORAGE

Owner:	Sachs Harbour	Operator:	Sachs Harbour	Condition of tanks:	good
Berms & Liners	A	Water within Berm:	none present	Evidence of Leaks:	None present
Drainage Pipes	A	Pump Station and Catchment Berm	N/A		
Pipeline Condition	A	Not Applicable:	N/A		

- Comments:
- Concerns:
1. Water Supply Facility (WSF) flex pipe for pipeline to the fuel tank is not entirely in the bermed area and needs to be routinely monitored (see Figure 2). This is a concern since if there is any failure; fuel might not go into the berm during a spill.
  2. Inside the generator room there is fuel present with spill pads in the drip tray under pipe coming from the fuel tank and this was present during previous inspections. There was also a strange wax or similar build up on the fuel pipeline elbow in the generator room before going into the Water Treatment room.

Note:

- Some water (about an inch deep) is present within the metal berm for the WSF fuel tank which is outside and exposed to the elements. The berm shows signs of rusting as a result.

**SURVEILLANCE NETWORK PROGRAM**

Samples Collected		Hamlet	No samples had been taken at the time of inspection. <sup>1</sup>	
		DIAND	Yes, samples were taken during inspection at SNP 1531-2 (see Figure 3) and in the corner of Water Lake on the southside of the intake line, below the WSF and the drainage from the hill/access road (see Figure 4).	
Signs Posted:	SNP	N/A – map or drawing has not been submitted.		Warning
		Signage needed for Sewage Disposal Facilities, Water Supply Facilities and the Solid Waste Disposal Facilities. <sup>3</sup>		
Record & Reporting		Water consumption records have been provided for 2004-2008, but not as Annual Reports. Annual report for 2009 has not been sent in.		
Geotechnical Inspection		N/A		

Comments:

Concerns:

1. Annual Reports from 2004-2009 need to be submitted as per Part B: General Conditions, Item 1, of the Water Licence. If data is limited the Annual Reports should be sent with what information is known so there are records available.
2. Water quality from the outflow of Sewage Disposal Facility and run-off from the Solid Waste Disposal Facility are to be monitored by the Hamlet of Sachs Harbour as per Surveillance Network Program criteria Part B: General Conditions, Item 2, of the Water Licence.
3. A map or drawing indicating the location of the SNP sampling locations is still required as per Part B: General Conditions, Item 4, of the Water Licence.
4. Signage is needed to warn the public and promote awareness at the Water Supply, Solid Waste Disposal Facility and Sewage Disposal Facility as per Part B: General Conditions, Item 5, of the Water Licence.

**Violations of Act or Licence:**

Part B: General Conditions, Item 1,

"The Licensee shall file an Annual Report with the Board not later than April 30<sup>th</sup> of the year following the calendar year reported..."

Part B: General Conditions, Section 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, Section 4,

"The Licensee shall, within 60 days of the issuance of this Licence, submit to the Board for approval a map or drawing indicating the location of all Surveillance Network Program sampling stations."

Part B: General Conditions, Section 5,

"The Licensee shall, within 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 D: Conditions Applying to Waste Disposal, Section 8,

"The Licensee shall contain all contaminated soil in such a manner as to minimize the potential for migration of contaminants into any Waters, to the satisfaction of an Inspector."

Part D: Conditions Applying to Waste Disposal, Section 9,

"The Licensee shall segregate and store hazardous Waste in a temporary storage area, to the satisfaction of an Inspector."

Inspector's Signature:



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WATER LICENCE INSPECTION REPORT Pg. 4

(Continued)

Date:	September 21, 2010	Licence #:	N7L3-1531
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Inspection Images:

Figure 1

Erosion is occurring at the sewage discharge chute. The distance from the truck to the start of the chute needs to be properly measured out and the truck tire stop/barricade installed/maintained. This would help prevent costs for the Hamlet to repair it and material to replace it



Figure 2

Flex pipe for pipeline to the fuel tank is not entirely in the bermed area and is a potential source of contamination. A spill might not end up in the bermed area. It is important to routinely monitor the piping.



Figure 3

Samples were taken during inspection at SNP 1531-2 located on the other side of the sewage lagoon. The area does not appear to discharge unless high water as this seems to be the lowest elevation in the immediate area.



Figure 4

Other sampling area located in the corner of Water Lake on the southside of the intake line, below the WSF and the drainage from the hill/access road.

