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November 27, 2007

Northwest Territories Water Board
P.O. Box 1326
Yellowknife, NT X1A 2N9

Attn: Vicki Losier, Executive Assistant

RE: Municipal Water Licence (N7L3-1531)

Dear Ms. Vicki Losier,

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 867-777-3662.

Sincerely,

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)
Municipal Solid Wastes Suitable for Open Burning Document
Drum Disposal Protocol Document





WATER LICENCE INSPECTION FORM

DATE:	August 28, 2007	COMPANY REP:	James Harry – Asst. Foreman
LICENCEE:	Hamlet of Sachs Harbour	LICENCE #:	N7L3-1531

WATER SUPPLY

Source:	Water Lake	Quantity Used:	>4400 m ³ *Exceeded Licence Limits
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Owner/Operator: Hamlet of Sachs Harbour

Indicate:	A - Acceptable	U - Unacceptable	N/A - Not Applicable	N/I - Not Inspected			
Intake Facilities	U ¹	Storage Structures	N/A	Treatment Systems	A	Chem. Storage	A
Flow Meas. Device	A	Conveyance Lines	A	Pumping Stations	A		

Comments:

Concerns:

1. Large hydrocarbon stain on the intake ramp that goes into Water Lake. This contaminated soil needs to be removed as this soil is among the water supply. There has been a gradual accumulation of hydrocarbons from leaking equipment. The equipment needs to be repaired to prevent further leakage and potential contamination of the Hamlet's water supply(see Figure 1).
2. Water usage according to available Hamlet records is more than currently allotted in the Water Licence. The Hamlet of Sachs Harbour needs to apply for an amendment to the Water Licence from the Northwest Territories Water Board to increase the quantity of water that can be used.

Notes:

- Pump and line getting repaired in January. Pump line was frozen last winter.

WASTE DISPOSAL

Sewage	Sewage Treatment System (primary, secondary, or tertiary)				Primary		
	Natural Water Body		✓	Continuous Discharge (land or water)		N/A - No sewage discharged	
	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		N/A	Construction	U ⁴	Disch. Meas. Dev.		N/A	Freeboard	N/A
Decant Structures		N/A	O&M Plan	N/A	Dams, Dykes		N/A	Seenages	N/A
Dyke Inspections		N/A	A&R Plan	N/A	Erosion		N/A	Spills	U ¹
Periods of Discharge		No sewage discharged.			Effluent Discharge Rate			N/A	

Comments:

Concerns:

1. Hydrocarbon staining on the offload pad at the sewage lagoon. This could potentially contaminate water in the area. Contaminated soil needs to be removed and sent to a proper disposal facility. Vehicles need to be repaired to prevent further leakage.(See Concern #2 under Water Supply)
2. Waste is not always properly segregated. Signage is 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, empty drums, honey bag pit, and hazardous waste(waste oil, batteries etc).
3. Burning of non-segregated Municipal Solid Waste (MSW) is occurring. Burning of non-segregated MSW 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).
4. At the time of inspection contaminated soil was being transported to the Solid Waste Disposal Facility(SWDF). The pile of contaminated soil was from an excavation of a spill that had occurred in the Hamlet. The presence of contaminated soil at the SWDF occurred as a modification without notification of the Northwest Territories Water Board. The presence of 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 and provide proper containment for the contaminated soil(see Figures 2 and 3).

5. Honey bags are not used by the Hamlet except for one resident which is switching over to a sewage system. Previously the small amount of honey bags has been put into the household waste area. It was communicated that this was unacceptable and that the honey bags should be put into a designated area. If an area is not available one should be made for future honey bag disposal.
6. There was no place for waste animal parts. Waste animal debris was seen at the landfill and needs proper disposal.
7. At the SWDF there were drums which also contain liquids. The liquids in containers are to be properly disposed of or used. Refer to the Drum Disposal Protocol from the GNWT Department of Environment and Natural Resources (Please see enclosed document).

Note:

- There is no evidence that the Sewage Lagoon is discharging
- Waste oil – Hamlet has a waste oil burner
- Batteries are collected then shipped out
- Area surrounding the SWDF has recently been cleaned up of windblown debris
- There are still materials at the old SWDF site and are being moved to the new SWDF. According to files this process of Abandonment and Restoration of the old SWDF has been occurring for some time(see Figure 4).

FUEL STORAGE

Owner:	Hamlet	Operator:	Hamlet	Condition of tanks:	good
Berms & Liners	metal berm	Water within Berm:	No	Evidence of Leaks:	No
Drainage Pipes	good	Pump Station and Catchment Berm	good		
Pipeline Condition	good	Not Applicable:	N/A		

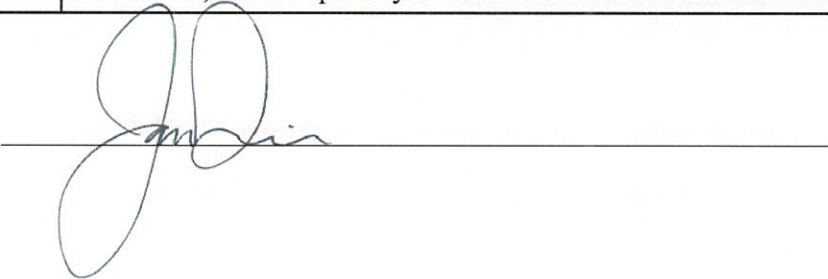
Comments:

Notes

-Drip pan inside emergency generator shed had some heating oil in it. Assistant Foreman mentioned that it has always been present. There was no evidence of leaks, drips etc.

SURVEILLANCE NETWORK PROGRAM

Samples Collected	Hamlet	None
	DIAND	None
Signs Posted: SNP	No	Warning More signage needed throughout facilities. Need to identify the Solid Waste Disposal Facility and provide signage to assist with waste segregation
Record & Reporting	No recent reports have been submitted	
Geotechnical Inspection	N/A	
Non-Compliance of Act or Licence:	Violations of Water Licence N7L3-1531 1. Part B1, 2004, 2005, 2006 Annual Reports not submitted. 2. Part C3, Annual quantity of water has exceeded current Licence Limits of 4,400 m³	

Inspector’s Signature: 



WATER LICENCE INSPECTION REPORT Pg. 2
(Continued)

Date:	August 28, 2007	Licence #:	N7L3-1531
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Inspection Images:

Figure 1
Large hydrocarbon stain on intake ramp at Water Lake.



Figure 2
Contaminated soil pile from the excavation with no visible containment at Solid Waste Disposal Facility.



Figure 3
Contaminated soil pile with visible geotextile liner at the excavation site.



Figure 4
Old Solid Waste Disposal Facility site. Material still being moved to new SWDF site.



Drum Disposal Protocol For Municipal Landfill

Commercial and institutional supplies, as well as fuel, arrive in the north in drums or in bulk containers. Most containers are recyclable but rising fuel and transport cost generally means that unwanted drums or unusable tanks are taken to the local landfill for disposal.

Landfills in the NWT are not designed to receive liquid waste. Precipitation in the form of rain and snow do dissolve waste and create leachate which percolates down through the soils. If chemical or fuel residues have been deposited in the landfill surface and ground water could become contaminated.

The attached guide provides the requirements for acceptance of drums and tanks at municipal landfill. The municipal authority must also provide approval prior to landfill disposal.

All large containers and tanks that previously held Dangerous Goods are required to be emptied and cleaned prior to landfill disposal or returned to manufacturers or recyclers. These containers are hazardous and must be handled accordingly.

The *NWT Environmental Protection Act* prohibits the release of contaminants into the environment. Liquids are not allowed into landfills in the NWT.

Further information on landfill design and operation refer to the Guidelines for the Planning, Design, Operations and Maintenance of Modified Landfills in the NWT, Department of Municipal and Community Affairs. This document is on the ENR website. For further information contact Environmental Protection Division at 873-7654 or visit their website at <http://www.enr.gov.nt.ca/eps/leg.htm>.

Municipal Solid Wastes Suitable for Open Burning

Municipal solid wastes (MSW) that are conditionally suitable for open burning are paper products, paperboard packaging and untreated wood wastes only.

Conditions for this burning are:

- * The principle of source reduction should be utilized to reduce, reuse and recycle materials otherwise bound for landfill.
- * The appropriate materials are segregated and burned in a controlled manner and site which is separate from the working landfill so that the fire cannot spread. Standard burning conditions shall apply to burning such as on days where winds are light, blowing away from the community, in manageable volumes so that fires do not get out of control, having applicable permits and managed by an authorized, qualified person from the community. These are conditions also recommended in the Municipal and Community Affairs Solid Waste Modified Landfill Guidelines.
- * Building demolition wastes should not be burned unless they have been sorted to remove non-wood wastes such as roofing materials, electrical wire, plastics, asbestos and other non-wood wastes.
- * Waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions shall not be burned. Examples of treated wood materials include railroad ties, telephone/hydro poles, pilings, cribbing and foundations.
- * Following a review of the specific landfill location, additional local conditions or controls may be applied.

Where geographic conditions do not allow for the proper operation of a modified landfill, such as because of limited availability of cover materials and unsuitable ground conditions, communities may have to assess other alternatives of MSW management ie: balefill, incineration. The open burning of non-segregated MSW remains an unacceptable option for the management of MSW. Continuation of this practise should not be allowed unless a site-specific assessment fails to identify a feasible and practical alternative. At that point some form of segregation will be required.

DRUM AND TANK CLEANING FOR MUNICIPAL DISPOSAL

Definitions:

Small container - containers with a liquid capacity of 205 litres or less

Large container - containers with a liquid capacity greater than 205 litres

Empty container - A small container that has been emptied, to the greatest extent possible, using regular handling procedures, but its contents shall not exceed 1% of the container's original capacity or 2 litres, whichever is less.

Small Containers

Small containers taken to landfill for disposal should be emptied to the greatest extent possible, using regular handling procedures. Containers that previously held dangerous goods should be crushed or be pierced to prevent reuse.

Barrels containing only rust and sediment shall be treated as empty containers.

Tanks and Large Containers

If approved for landfill disposal by municipal authorities, tanks and large containers that previously held Dangerous Goods must be cleaned to remove all residuals. Cleaning can be undertaken by contracting commercial cleaning companies to undertake one of the following procedures, solvent rinsing, steam cleaning or high pressure rinsing with appropriate cleaning agents.

The risings are hazardous waste and must be collected and managed according to their characteristics (i.e. flammable, corrosive, acidic, etc.). The Guideline for the General Management of Hazardous Waste in the NWT details the requirements for management of these wastes.

Petroleum product container rinsing may be acceptable for treatment at municipal or commercial landfills designed to treat hydrocarbon contaminated soils. These landfills generally operate on a fee for service basis.

For further information contact Environmental Protection Division, Environment and Natural Resources at 873-7654 or visit the website at

<http://www.enr.gov.nt.ca/eps>.