

## WATER USE INSPECTION REPORT FORM   CIDM# 429032

<b>Date:</b> August 8 ,2010	<b>Licensee Rep.</b> (Name/Title): Mr. Kim Kalen, (NWS), Barb Thompson (Nasittuq), Scott Mackenzie LSS Mgr. (Nasittuq), Dave Briand –Site mgr.
<b>Licensee:</b> North Warning System Office (DND)	<b>Licence No.:</b> 3BC-FOD0919 (Fox -3 Dewar Lakes)

### **WATER SUPPLY**

<b>Source(s):</b> Small Lake		<b>Quantity used:</b> Records on site	
<b>Owner:/Operator:</b> NWS		Pump from lake to truck	
Indicate: <b>A</b> - Acceptable <b>U</b> - Unacceptable <b>NA</b> - Not Applicable <b>NI</b> - Not Inspected			
<b>Intake Facilities:</b> A	<b>Storage Structure:</b> A	<b>Treatment Systems:</b> A	<b>Chemical Storage:</b> NA
<b>Flow Meas. Device:</b> A	<b>Conveyance Lines:</b> NI	<b>Pumping Stations:</b> NI	<b>Screen :</b> NI

**Comments:** Water from the lake is pumped into a water tank affixed to a truck. Water is then trucked to the accommodation train into the four holding tanks on site. Two separate treatment systems are on site. The first system is located by the main tanks and consists of a series of four filters and finally a UV treatment system. The other system is located directly adjacent to the Kitchen. This system has an additional 4 sets of filters and a UV system.

Water testing within the facility remains unchanged. Tests are conducted monthly and results were available for review during the Inspection.

A water meter was noted on site and appeared to be working.

### **WASTE DISPOSAL**

**Sewage:** Sewage Treatment System (Prim./Sec/Ter.): Discharge to ex-filtration lagoon

<b>Natural Water Body:</b> No		<b>Continuous Discharge</b> (land or water): Land	
<b>Seasonal Discharge:</b> NA		<b>Wetlands Treatment:</b> None	
Indicate: <b>A</b> - Acceptable <b>U</b> - Unacceptable <b>NA</b> - Not Applicable <b>NI</b> - Not Inspected			
<b>Discharge Quality:</b> NI		<b>Decant Structure:</b> NA	
<b>Discharge Meas. Device:</b> NA		<b>Seepages:</b> NA	
<b>Dams, Dykes:</b> A		<b>Spills:</b> NA	
<b>Construction:</b> A		<b>O&amp;M Plan:</b> Provided A	
<b>Periods of Discharge:</b> Con.		<b>A&amp;R Plan:</b> As filed	
<b>Effluent Discharge Rate:</b> Unknown			

**Comments:** Effluent from the accommodations train includes both black and grey water which is discharged via pipeline to a newly constructed lagoon.

No samples were collected at the time of the inspection as there was insufficient effluent in the lagoon for decanting. Samples had been collected in July and these were available for review. It is noted that the Nunavut Water Board has not provided effluent discharge criteria within the license. It is unclear what effluent treatment standards the License must meet prior to the discharge of effluent from the newly constructed lagoon.

The Inspector calls on the Nunavut Water Board for clarification on this issue. Additionally, as noted within the License the licensee is required to sample effluent during months of flow. In discussion with the licensee and for clarification to the Licensee the Inspector has agreed that flow refers to any flow originating from the lagoon or during any period of decanting.

It was noted during the Inspection that work undertaken by Defence Construction Canada's Contractor on site to remove hydrocarbon impacted soils has resulted in the construction of a roadway behind the lagoon. This has resulted in water build up directly adjacent to the berm wall. This may, if left, result in the erosion of the berm wall and an unforeseen release of effluent. It is recommended that this ditch be filled at the first opportunity to prevent any erosion to the exterior walls of the lagoon.

The Licensee is also required to submit a sludge management plan.

**Solid Waste:** Wastes are backhauled to Fox Main and the Municipality of Hall Beach for disposal.

**Owner/Operator:** Municipality of Hall Beach

<b>Landfill:</b> NA	<b>Burn &amp; Landfill:</b> NA	<b>Other:</b> Haz-Mat marshalling area
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**Comments:**

Kitchen and other combustible wastes generated by the licensee are currently being stored on site and transferred by Plane or Helicopter to Fox Main for disposal by the Municipality of Hall Beach in the Municipal Waste Management Area.

Hazardous wastes are usually transferred to Fox Main annually. In 2009 the Sea-lift was unable to remove the materials and the Licensee was forced to store the materials Fox Main over winter.

No records were available for review at this time as no materials had been shipped off site. In 2010 it is expected that all of the 2009 and 2010 haz materials, waste oils, filters and contact water/ sludge from the 2009 tank cleaning project will be shipped off site. The 2010 records will be appended to the 2010 Annual report submitted to the Inspector and the Nunavut Water Board.

It is noted by the Inspector that an Incinerator is still not present on site. While the backhaul of garbage to the Municipality of Hall Beach may be an option for the short term it is obviously not a sustainable long term solution.

The Inspector calls upon the licensee to provide the Nunavut Water Board and the Inspector a plan to address this issue. This Plan is to be submitted as an addendum to the 2010 Annual report and will provide times lines for compliance.

**FUEL STORAGE:** On-site storage of fuels, all tanks inspected.

**Waste Oil Storage:** Waste Oil and other Haz Mat shipped off site to Fox Main on July 5<sup>th</sup>, 2010..

**Owner/Operator:** North Warning System (Department of National Defence)

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

Berms & Liners: A	Water within Berms: A	Evidence of Leaks: A
Drainage Pipes: A	Pump Station & Catchments Berm: A	
Pipeline Condition: NI	Condition of Tanks: NI (Tanks in use were cleaned and tested in 2009) Tanks have been registered as per AGS Regs.	

**SURVEILLANCE NETWORK PROGRAM (SNP)**

Samples Collected	Owner /Operator: Testing results noted in 2009 Annual report for Raw water. Testing results from Fuel storage berms were submitted to the Inspector in July of 2010 prior to discharge.	
0	<b>INAC:</b> Potable water source tested in July 2009. No Effluent testing was required in 2010.	
Signs Posted	SNP: (potable source)	Warning: Noted on site
<b>Records &amp; Reporting:</b> Records were available as required.		
<b>Geotechnical Inspection:</b> N/A		

**Non-Compliance of Act or Licence:**

The Licensee has taken steps over the last two years to ensure they bring themselves into compliance with the issued license and the Act. It is recommended that the site be inspected again in 2012 or 2013 to ensure continued compliance with the issued license.

A. Keim

Inspector's Name

Sent by E-mail

Inspector's Signature

