



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Senior Administrative Officer Hamlet of Grise Fiord, Baffin Region,		David Watsko- Hamlet foreman Bhbesh Roy – Regional Engineer – GN	
Licence No. / Expiry		Representative's Title	
3BM-GRI Exp. Jan 29, 2011		Hamlet Foreman	
Land / Other Authorizations		Land / Other Authorizations	
Date of Inspection		Inspector	
July 6,2016		A.Keim	
Activities Inspected			
<input type="checkbox"/> Camp	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other: Water Discharge	<input checked="" type="checkbox"/> Other: Municipal	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Fuel Storage			

Conditions:		A - Acceptable		C - Concern		U - Unacceptable		NA – Not Applicable		NI – Not Inspected	
Water Use		Condition		Comment		Site Conditions		Condition		Comment	
Intake/Screen		A				Water Management Structures		C		4	
Flow Measure. Device		C		1		Culverts / Bridges		A			
Source: Melting Glacier						Drainage		A			
Water Use:		A				Erosion / Sediment		A			
Recirculation (y /n)		NA				Mitigation Measures		A			
						Reclamation Activities		U		5	
						Materials Storage		A			
Waste Disposal						Signage		A			
Waste Water		C		2							
Solid Waste		U				Monitoring				Other	
Hazardous Waste		U		3		Sample Collection / Analysis		C			
*The number in the comments field will correspond with specific comments provided below.											
Samples taken by Inspector:				Location(s): AANDC Inspectors collected Raw Water samples from intake pond as well as leachate samples from within the SWMA							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments (s.____)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.____)	<input type="checkbox"/> Action Required (s.____)
<p>On July 6, 2016 the Inspector, Bhabesh Roy, regional Engineer , Government of Nunavut and Mr. Jonathan Mesher, INAC attended the community of Grise Fiord to conduct a municipal water license inspection. Grise Fiord is Southern coast of Ellesmere Island at 76025’N and 83001’W and has a year round population of less than 100 people. Global warming is suspected in reducing the size of the glacier situated above the community and is the source of their Raw water. The community collects approximately 3500 m³ of run off from the Glacier annually and holds it in a storage tank over winter. There were two tanks but one has been pulled out of service. In 2010 the community did not have enough water to supply the community for the year and so Ice has to be harvested from a passing iceberg and melted for use in the community.</p> <p>Upon our arrival we walked to the Hotel and then to the Hamlet office to locate the Hamlet foreman or some representative of the Hamlet to attend the Inspection. Mr. David Watsko arrived and we undertook the Inspection.</p> <p>Water Use:</p> <p>The party attended the Water collection area that has underseen some construction over the last two years. The cell (ditch) has been dug down and an additional cell added to increase the holding volume and settling time of the run off. Water is collected in the cell and then a hose is attached to the end of the installed underflow pipe and water is transferred (gravity feed) to the main tank approximately 75 M down hill. Signage has been installed but the fencing shipped over in 2013 has not yet been erected and in fact is in exactly the same spot as photographed in 2014. Samples were collected by the Inspector.</p> <p>No serious concerns were identified during the period of Inspection however the licensee was unsure of the actual amount of water used by licensee annually. The licensee has been required to install and maintain a meter at the monitoring station at the water intake area GRI-however this has not been maintained so water usage is recorded from trucked delivery. This may not accurately reflect the total usage of water by the licensee.</p> <p>It is unclear if the work on the cells had been approved by the Board prior to it being undertaken. The GN representative is to</p>			



provide confirmation.

Waste Management

Waste water:

Following the Raw water Intake location we attended the Sewage treatment lagoon site. Sewage treatment is provide, as most communities by an engineered lagoon and decanting. There was sufficient freeboard identified during the period of inspection and no seepage was visible from the toe of the lagoon. The annual decant was not on-going during the period of the Inspection so no samples were collected. It was noted that a large metal object, possible from the Bulk metals area immediately adjacent to the lagoon has fallen or been blown into the lagoon. This object should be removed. And the required fences be installed at the Lagoon and the Solid Waste Management Area.

Solid waste:

The Inspector found that very little improvement to the Solid Waste Management Area has been undertaken by the Licensee since the period of the last Inspection in 2014. If anything it appears to be progressively getting worse since 2006 when first identified by the Inspector to the Licensee has a priority item to be addressed.

“Inspection of the Solid Waste Management area found little or no segregation of materials. Three areas containing Drums of waste materials were noted (approx 100 drums)”. (3BM-GRI Inspection Report August 2006 , CIDM# 302882, Keim, 2006)

During the period of Inspection in July 2016, ten years after the initial request to begin segregation and to consolidate hazardous wastes was provided to the Licensee and the Government of Nunavut, there are now over 400 barrels (many leaking) of unknown content and hundreds of batteries, paint cans, aerosols, electronics, and florescent lightbulbs scattered throughout the facility. It was noted however that the Municipality had installed a sea-can at the facility but had not consolidated any of the hazardous wastes into it.

The Municipality and the Government of Nunavut have committed in the past to undertake a project to consolidate hazardous wastes including drums of waste oil, batteries, paint cans and other materials. This work has not been done.

Spills:

It is also unclear as to the end result of the contaminated soils removed from the spill at the Transfer station. This spill file will remain open until such time as a report is filed detailing what was done and the location of these contaminated soils.

SECTION 2	<input type="checkbox"/> Comments (s.__)	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence (s.__)	<input type="checkbox"/> Action Required (s.__)
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It is noted that the current License has expired and the Nunavut Water Board has requested further information from the licensee and the Government of Nunavut with respect to the application.

Identified during the inspection were these issues of Non-compliance.;

- Part B (2) Failure to comply with the Monitoring program
- Part B (11- 13) Failure to maintain and report modifications or changes in proposed target dates to the submitted compliance plan as required.
- Part B (14) Failure to implement the Compliance Plan(2011)
- Part D (7) Failure to segregate hazardous wastes
- Part D (8) Failure to take measure to control wind-blown litter at the Solid Waste Disposal Facility
- Part E (1, 4, 5, and 6) Failure to notify the Board upon undertaking the enlargement of the water In-take ditch
- Part F (1) Failure to submit the O&M Manuals for all existing facilities as is required by the License
- Part F (3) Failure to submit Geotechnical Inspection Reports as required by the License
- Part G (1) Failure to submit as required the appropriate Abandonment and Restoration Plans
- Part H Failure to implement all of the requirements listed under the Monitoring Program

It is the recommendation of the Inspector that the Licensee apply for and be granted a license that provides a sufficient term for the Licensee and to Government of Nunavut to address these issues of non-compliance.

Photo Log			
Date	Authorization	Camera	Inspector
July 6, 2016	3BM-GRI0911 -Expired	Sony Cyber shot	A. Keim



Figure 1 Raw water intake. Pond has been expanded to create a new cell



Figure 2 signage at Raw water intake



Figure 3 Pipe to fill tanks. tanks just recently filled so pipe is disconnected . Samples collected



Figure 4 Original cell at intake location. expansion to left



Figure 5 cell is filled via three small streams from glacial melt



Figure 6 Signage



Figure 7 Fencing for cell remains unerected



Figure 8 Lagoon and signage



Figure 9 Lower lagoon truck drop off



Figure 10 Lagoon is nearing capacity



Figure 11 Decant pathway to ocean . note hose in lower left



Figure 12 Decant hose on top of berm wall



Figure 13 Battery and haz mat storage sea-can placed at solid waste management area



Figure 14 Pallets of batteries and waste oil drums at solid waste management area



Figure 15 Bulk metal at solid waste management area



Figure 16 Waste oils and batteries



Figure 17Water treatment system at garage. Noted corrosion/oxidation of metals and fittings in room.

Licensee or Representative	Inspector's Name
	Andrew Keim
Signature	Signature
	Original on File
Date	Date
	July 26, 2016

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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