



August 29, 2014

Your file - Votre référence
1BR-CAP0914

Our file - Notre référence
IQALUIT-#840671

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
GJOA HAVEN, NU X0E 1J0

**Re: Aboriginal Affairs and Northern Development Canada Review of Defence Construction
Canada's Application to Renew and Amend Water Licence #1BR-CAP0914**

Dear Ms. Beaulieu:

Thank you for your email of July 29, 2014, concerning the above mentioned application. A memorandum is provided for the Board's consideration. Comments and recommendations have been provided pursuant to Aboriginal Affairs and Northern Development Canada's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4555 or email at david.abernethy@aadnc-aadnc.gc.ca for further information.

Sincerely,

David Abernethy
Regional Coordinator
Water Resources Division
Resource Management Directorate
Aboriginal Affairs and Northern Development Canada
IQALUIT, NU X0A 0H0

Encl.

c.c.: Andrea Morgan, A/Manager of Water Resources, AANDC Nunavut
Erik Allain, Manager of Field Operations, AANDC Nunavut

Memorandum

To: Phyllis Beaulieu, Nunavut Water Board

From: David Abernethy, Aboriginal Affairs and Northern Development Canada

CC: Andrea Morgan (AANDC) and Erik Allain (AANDC)

Date: August 29, 2014

Re: Water Licence Renewal Application, #1BR-CAP0914

Licensee: Defence Construction Canada
Project: PIN-2, Cape Young Distant Early Warning Line Site
Region: Kitikmeot

Comments:

A. Background

On July 29, 2014, the Nunavut Water Board (“**NWB**”) provided notification of Defence Construction Canada’s (“**DCC**” or the “**Licensee**”) application to amend and renew their Type ‘B’ Water Licence, #1BR-CAP0914. This licence authorizes the use of water and disposal of waste for camp operations and site remediation activities at the former PIN-2, Cape Young Distant Early Warning (“**DEW**”) Line Site. This project area is situated on Nunavut’s mainland along the coast of the Dolphin and Union Strait, approximately 150 km north of the Hamlet of Kugluktuk.

The Licensee has reclaimed historic landfills within the project area and is overseeing a post construction landfill monitoring program on behalf of the Department of National Defence (“**DND**”). The project is being conducted in accordance with a cooperation agreement that was formalized between DND and Nunavut Tunngavik Inc. (“**NTI**”) in 1998 for the clean-up and restoration of DEW Line Sites within the Nunavut Settlement Area. According to the 2013 landfill monitoring report included in the application, environmental clean-up and demolition of facilities commenced in 2009 and was completed during the summer of 2011, with the exception of the airstrip hangar.¹ Clean-up work included the closure and remediation of existing landfills and construction of two new landfills. A landfill was constructed for the disposal of non-hazardous wastes generated from the demolition and collection of site debris and a DCC Tier II Disposal Facility (landfill) was constructed for the disposal of Tier II contaminated soil. Both of these landfills have been closed and remediated.

The current scope of work includes the monitoring of nine closed and remediated landfills. Project personnel will access the site according to the schedule outlined in the submitted monitoring plan. Typically, there will be three people on-site for up to two days at a time to inspect the landfills. The only anticipated water use will be from the collection of groundwater monitoring well samples. The Licensee is requesting that the daily water use allowance be reduced from 65 m³ per day to 0 m³ per day. Because

¹ Biogenie, A Division of Englobe Corp. *Collection of Landfill Monitoring Data – Final Report, 2013. PIN-2 Distant Early Warning (DEW) Line Site, Nunavut*. Reference # CD3654. Prepared for Defence Construction Canada. January 2014.

the scope of work has changed from actively reclaiming the project area to post-closure monitoring of completed reclamation works, several licence terms and conditions no longer apply (e.g., management of demolition rinse wastewater, sewage lagoon effluent discharge criteria – the sewage lagoon was closed and remediated in 2010, etc.).

The Licensee is requesting that its licence be renewed for seven years. The NWB has invited interested parties to review this application and provide comments by August 29, 2014.

B. Results of review

On behalf of Aboriginal Affairs and Northern Development Canada (“**AANDC**”), the following comments and recommendations are provided:

1.	<p>Proposed licence term</p> <p>Comment: The Licensee is following the 1998 NTI-DND Cooperation Agreement for the clean-up and restoration of DEW Line Sites within the Nunavut Settlement Area. The agreement’s post-closure monitoring program comprises of three phases:</p> <ul style="list-style-type: none"> • Phase I: Monitoring of conditions to confirm that equilibrium is achieved; <ul style="list-style-type: none"> ○ Schedule: first, third, and fifth years following construction (minimum) • Phase II: Verification of equilibrium conditions established during Phase I; and <ul style="list-style-type: none"> ○ Schedule: year 7, year 10, year 15, and year 25 • Phase III: Monitoring of long-term issues such as liner integrity, permafrost stability, and significant storm events. <ul style="list-style-type: none"> ○ Re-evaluation of monitoring program at end of Phase II (after 25 years of monitoring) <p>The Licensee has requested a seven year licence renewal term. The project is in its third year of post-closure monitoring.</p> <p>Recommendation: The requested seven year licence renewal term is reasonable. It would allow for a transition from the Phase I to Phase II post-construction monitoring program requirements specified in the 1998 NTI-DND Cooperation Agreement for the clean-up and restoration of DEW Line Sites within the Nunavut Settlement Area.</p> <p>The project should remain licensed for the duration of the post-closure monitoring program (i.e., minimum of 25 years following completions of site remediation activities). As a result, the Licensee will be expected to maintain its licence by submitting additional licence renewal applications.</p>
2.	<p>Water consumption allowance</p> <p>Comment: The Licensee is requesting that its daily water use allowance be reduced from 65 m³ per day to 0 m³ per day. This is because there is no longer a need for water use for camp operations (i.e.,</p>

	<p>bottled water will be brought to site for potable use) and site reclamation activities (e.g., there will be no demolition rinse wastewater and sewage lagoon effluent). However, the Licensee will periodically collect groundwater monitoring well samples from the Tier II Disposal Facility and Non-Hazardous Waste Landfill (approximately 1 L per well).</p> <p>Recommendation:</p> <p>The renewed licence should include a daily water use allowance to address the collection of groundwater monitoring well samples. It is suggested that a minimum allowance 1 m³ be allocated. The collection of groundwater is a use of water pursuant to Section 4 of the <i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i>.</p>
3.	<p>Post-Closure Monitoring Plan</p> <p>Comment:</p> <p>Part K, Item 1 requires that the Licensee provide a Post-Closure Monitoring Plan to the NWB for approval six months prior to the completion of remediation activities. Included in the application is a May 2014 landfill monitoring program that was prepared by AECOM Canada Ltd. on behalf of the Licensee². Considering that site remediation activities were completed in the summer of 2011, this plan was not submitted within the specified licence timeframe. However, the Licensee has satisfied the licence condition by provided a site specific stand-alone document that addresses the monitoring requirements for the 25 year monitoring phase.</p> <p>Recommendation:</p> <p>The May 2014 landfill monitoring program included in the application satisfies the requirements of Part K, Item 1 of the licence. Any updates to this plan should be provided to the NWB in annual report submissions. Furthermore, the Licensee should re-evaluate the plan when preparing future licence renewal applications.</p>
4.	<p>Waste management</p> <p>Comment:</p> <p>Block 14 of the completed Amendment Renewal Application Form states that as, “the remediation work is complete, there will be no waste generated.” However, it is noted a temporary camp will be established when people (typically three) visit the site for up to two days to carry out the landfill monitoring program. Waste will be generated when monitoring activities are being carried out (sewage, gray water, solid waste, etc.). As a result, licence terms and conditions specific to waste management should be applied.</p> <p>Recommendation:</p> <p>The NWB should confirm with the Licensee how it will manage wastes that will be generated by its landfill monitoring program. Standard terms and conditions for similar undertakings (remote temporary camps) should be applied. It is recommended that all solid and hazardous wastes (e.g., fuel drums) be backhauled to approved waste management facilities at the completion of each field season.</p>

² AECOM Canada Ltd. *Water Use Licence Amendment and Renewal – PIN-2, Cape Young Landfill Monitoring*. Prepared for Defence Construction Canada. Project Number: 60290576. May 2014.

5.	<p>Landfarm Status</p> <p>Comment: The Licence makes multiple references to the use of a landfarm for the bioremediation of hydrocarbon contaminated soils (Part D, Item 10; Part K, Item 2; and Part K, Item 8). However, it is not known if this facility was constructed and subsequently closed because no information with respect to its status is provided in the application or annual report submissions.</p> <p>Recommendation: The NWB should confirm the status of the landfarm that was intended for the treatment of recovered hydrocarbon contaminated soils and revise the licence accordingly (i.e., remove effluent quality discharge limits if the facility does not exist, require the submission of final design drawings signed and stamped by an engineer, etc.).</p>
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Prepared by David Abernethy