Affaires autochtones et du Nord Canada

Water Resources Division Nunavut Regional Office Iqaluit, NU X0A 0H0

June 24, 2016

NWB File: 1BR-RES0916

Karen Kharatyan Manager of Licensing Nunavut Water Board PO Box 119 Gjoa Haven, NU X0A 1J0 INAC File: CIDM: 1074347

Re: 1BR-RES0916 – BAF-5 Dew Line Site, Resolution Island – Renewal Application - Indigenous and Northern Affairs Canada

Please be advised that Indigenous and Northern Affairs Canada (INAC) has completed a review of the above noted water licence renewal application.

In conducting this review, I have referred to all documents on the Nunavut Water Board FTP site as it relates to 1BR-RES0916. Attached is a Technical Review Memorandum for your consideration.

Please feel free to contact me should you have any questions or comments. I can be reached at (867) 975-4566 or by email at ian.parsons@aandc.gc.ca.

Sincerely,

Original signed by

lan Parsons Regional Coordinator B.Sc Indigenous and Northern Affairs Canada

Cc. Scott Burgess, A/Manager, Water Resources Division – INAC, Nunavut Regional Office (NRO)

Erik Allain, Manager Field Operations, INAC, NRO

Technical Review Memorandum

Re: 1BR-RES0916 – BAF-5 Dew Line Site, Resolution Island – Indigenous and Northern Affairs Canada

Existing Water Licence #: 1BR-RES0916

Recommendations / Comments

Source: 2016 Water Licence renewal application

Comment: INAC notes the renewal application states that the sewage lagoon will be used. The licensee also states that grey water and toilet waste will be disposed in the existing sewage lagoon.

A small amount (< 1 m³/day) of greywater and toilet waste will be produced as a result of domestic cooking and hygiene activities. This water will be directed to the monitoring camp sewage lagoon.

The Licensee also states in the licence application "Note on Camp Sewage: The maximum fluid depth in the lagoon will not exceed one metre and it has the capacity to hold sewage generation for the monitoring season. The location of the lagoon is approximately 450 m from the any water body supporting aquatic life and is downwind of the monitoring camp (based on the prevailing wind direction). After site monitoring, the lagoon will be appropriately decommissioned following all applicable regulations and guidelines for sewage lagoon decommissioning in Nunavut."

INAC notes that outside of these statements no details on the sewage lagoon could be found in the associated application documents that were submitted to the NWB.

Recommendation: INAC recommends that the licensee provide details on the sewage lagoon. These details would include but are not limited to:

- 1) Is the lagoon lined?
- 2) Does the lagoon work by exfiltration?
- 3) Do you need to decant at seasons end?
- 4) Is the lagoon of sufficient size given that you would have 10 on site for 4 weeks at 1.15m³ of wastewater per day. 32.2 m³ of wastewater for the season. This would be all maximums. Given the picture provided INAC has concerns that the lagoon is of sufficient size.

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The licensee should provide at the very least the answers to these questions and confirm with confidence that the sewage lagoon can support the wastes generated and also ensuring that the receiving environment is protected.

If the receiving environment cannot be protected and this "sewage lagoon" operates like a sump then blackwater (sewage) should not be placed in this containment structure.

Expiry of Licence:

INAC notes that the licence has expired.

INAC recommends that the licensee not start any of their planned activities until a renewed license has been approved by the NWB.

INAC also recommends that in the future the licensee should apply for their licence renewal sooner to avoid this non-compliance issue.

Term of Licence:

INAC has no concerns with the term of licence being purposed.