From: Derek Donald [derek.donald@nwb-oen.ca]

Sent: June 24, 2019 3:26 PM

To: Roy, Bhabesh **Cc:** Richard Dwyer

Subject: Qikiqtarjuaq Licence update

Hi Bhabesh

I have reviewed you application for the Qikiqtarjuaq Licence renewal and have a number of items to address and/or comment on prior to send it out for public review.

1. Cover letter:

• mentions Arctic Bay. Please update to Qikiqtarjuaq. Right Cover letter attached.

Ans. Right one was sent out. Unsigned cover letter is requested to be deleted.

2. Summary

Spelling of Broughhton Island

Yes. Corrected copy is attached.

• Is this a strait forward renewal including water volume? Or are you requesting a greater volume than previous licence of 37,500 cubic metres?

Ans. Estimated volume has been shown in the application for 10 yrs. renewal.

• We do not have the 2016 or 2018 annual reports? Can these be submitted with all information available?:

Ans. Those were submitted already. However they are here again.

3. Licence Application:

• Missing a signature. We are unable to process the application without a signature.

Ans. SAO's sign copy is attached.

• Block 5: Map. A updated map of the town-site highlighting all water use a waste disposal facilities would be very useful. This can be included in updated management plans or as a stand alone "site/municipal layout."

Ans. The community has a Zonal Plan which shows the relative location of the water reservoir, Lagoon and wastes sites. The Plan is updated at certain intervals by the GN lands Division. This is available in Land Division website.

• Block 15: waste disposal table outlining types of waste and disposal methods is left blank. Please fill this in to the best of your ability as a summary table of waste disposal activities.

Ans. Domestic wastes, construction wastes, metal wastes, hazardous wastes, tires, batteries etc. The application was already signed and in PDF format. However these items are the addition.

The Trucking is the mode of the disposal method.

• Please clarify the volume of water requested? Will 50,000 be sufficient to 2029, or will 60,000 be more appropriate?

Ans. 60,000 cubic meters

4. Compliance Plan:

• The QA/QC plan needs a Letter from an accredited Lab accepting the plan, as per condition H-13.

Ans. Letter attached.

• Spill Plan need updated contact numbers, including NU Spill Line (867-920-8130) and CIRNAC Manager of field operations (867-975-4295).

Ans. Corrected.

• Water use: what is the plan/schedule for installing a water/flow meter right at the river source to accurately record water use? In addition, I would also recommend having some means of measuring river flow as well so it is possible to determine the relative amount of water being taken from the Tulugak River.

Ans. Looking for both options in the market. Expecting to install in the next summer.

• Waste disposal: what is the plan/schedule for developing a method from recording waste quantities?

Ans. Not decided yet. Our consultants are working to standardize Nunavut Waste Management strategy which is expected to be completed in 2020. The answer of this question will be there.

• What is the schedule of development of new facilities, i.e. new landfill, landfarm, etc.?

Ans. The Consultant will be on board by the end of July 2019 to complete the project.

• Is the sewage lagoon expansion (second cell) in operation? If so, please provide a brief history/outline of this activity.

Ans. Both cells are in operation. The new cell is unlined lagoon with gravity decanting process.

• When will the signs at the monitoring sites be erected?

Ans. The Missing signs will be identified this summer inspection and asked the Hamlet to order to replace the missing signs. The new signs are expected in next summer.

- 2018 Inspection Report outlines some deficiencies that need to be addressed, please comment on:
 - Condition D-1: the report states the a berm is built up in the river with boulders to heighten water level, and this activity is to be included in the Licence renewal application;

Ans. This is a temporary measures and conducted as and when needed during summer before starting extracting water from the source. The idea is to increase the water depth at the point of extraction.

o emergency decanting procedures are to be included in the sewage O&M;

Ans. Regular and emergency decanting protocol is same. No need for any extra documentation. Emergency decanting is conducted with the consultation with the CIRNAC Inspector and informing NWB, ECCC, GN-DOH and Spill hot line. The emergency decanting falls under Spill category.

o Condition D-6 requires a "sludge management plan." This can be included in an updated sewage facility O&M.

Ans. The sludge will be kept at the bottom of the lagoon for the entire life of the lagoon. In Nunavut, for Lagoon system, Sludge is always managed by keeping at the bed of the lagoon. This is normal practice and this is the sludge management plan.

Condition D-7 requires a "wetland treatment area assessment report."

Ans. This was part of the Design Brief and available in NWB since 2006.

5. General need for update to Management Plans:

• What is you capacity to update the O&M Manual for the solid waste facility, water uptake facility, sewage facility, and other plans as applicable? Currently we have one from 2010 that covers all facilities, however, it could use updated information.

Ans. We are in the process of standardization of all the O&M manuals and working with the NWB on this subject.

• Can you provide a update on the monitoring stations identified in the Table under Part H, Item 1 of the Licence. Are the groundwater monitoring wells active?

Ans. The Monitoring stations established in the Licence are remained same except ground water monitoring wells. In other communities, it was proved that no water was present in the monitoring wells. Therefore no monitoring well was constructed in Qikiqtarjuaq.

Please let me know if you have any questions or would like to talk on the phone. With all of the municipal Licence renewals coming up in the next year I think this is a good opportunity to standardize these Licences and develop templates for their various management plans. I think what was done for Kimmirut was very optimal and can be followed. I am working to try and standardize these Licences, related management plans, and discharge criteria. At some point it would definitely be worth a discussion.

Thanks, Derek