

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6500 000 002/008
NWB File: 8BC-ERK1621



October 6, 2021

via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licencing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

**RE: 8BC-ERK1621 – Department of National Defence – Eureka Weather Station – Type B
Water Licence Renewal Application**

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned water licence renewal application. ECCC's specialist advice based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

The following comments are provided:

1. Sludge Management Plan

Reference(s)

- Licence No. 8BC-ERK1621

Comment

The two previous licences required submission of a sewage sludge management plan, and this topic was included as a requirement as part of the previous renewal (2016) that had not yet been fulfilled. The previous licence included a condition requiring submission of a Sewage Sludge Management Plan as part of the 2016 Annual Report, however, it was unclear if this was completed as there is no reference to a sludge management plan within the general operations and maintenance plan, or included as a separate plan as part of the renewal submission.

ECCC Recommendation(s)

ECCC recommends the Proponent provide an update on the status of the Sludge Management Plan. If already developed, the plan should be provided for review as part of the licence renewal.



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada

2. Exceedances of Effluent Quality Criteria

Reference(s)

- Annual Reports (2016-2020)

Comment

It is acknowledged that Surveillance Network Program (SNP) sampling was not able to be completed in 2020 and 2021 due to the ongoing pandemic and the lack of occupancy at the site during this time. However, it is noted based on previous annual reports that the sewage lagoon discharge (ERK1) has not been within the effluent quality criteria as determined by the NWB in several years prior to 2020, including the following:

- 2016 – Total Suspended Solids (TSS)
- 2018 – TSS and pH
- 2019 – 5 Day Biological Oxygen Demand (BOD5), TSS, and pH

There is minimal discussion provided in the annual reports on sewage lagoon effluent quality, except in 2016 where the short settling time was noted as a potential source for the TSS exceedances.

ECCC Recommendation(s)

ECCC recommends the Proponent provide an evaluation of the lagoon performance and overall effluent quality at ERK-1, including analysis of trends over time, and potential measures or changes in operating procedures that may be implemented to improve effluent quality.

3. Quality Assurance/Quality Control Plan

Reference(s)

- Quality Assurance and Quality Control Plan CFS Eureka, Nunavut

Comment

The Proponent states that only minor changes were made to the plan to update the contracted laboratory. However, ECCC notes that overall the plan could benefit from a review in order to bring it up to date with the current activities at the site. For example, Section 2.1 (Sampling Locations), states,

“To date, water monitoring has not been conducted at Eureka. Sampling locations were established by the NWB and listed above and identified in Figure 1 (Appendix A). The exact sampling locations will be identified at the commencement of the sampling program in 2011”.

ECCC Recommendation(s)

ECCC recommends that the Quality Assurance and Quality Control Plan be updated to include relevant and current site details.

If you need more information, please contact Melissa Pinto at (867) 445-5384 or Melissa.Pinto@ec.gc.ca.

Sincerely,

[original signed by]

Melissa Pinto
Senior Environmental Assessment Coordinator

cc: Jody Small, Acting Head, Environmental Assessment North (NT and NU)