

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

ECCC File: 6200 000 003/004
NWB File: 3BM-PON1520



April 14, 2020

via email at: licensing@nwb-oen.ca

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

Dear Richard Dwyer:

RE: 3BM-PON1520 – Hamlet of Pond Inlet – Type B Water Licence Renewal

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Water License renewal-application. This letter contains our comments.

ECCC's specialist advice is based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

ECCC has the following comments:

1. Leachate from the Solid Waste Facility

Reference(s)

- *Municipality of Pond Inlet Plan for Compliance Licence No. 3BM-PON1520*
- *Annual Report for the Hamlet of Pond Inlet, Nunavut 2019*

Comment

The 2019 annual report identifies leachate from the landfill as an unauthorized discharge under the water licence. The unauthorized discharge has been an ongoing issue for multiple years. There are no follow-up actions listed for this unauthorized discharge, and the report only states that the Hamlet is awaiting a new facility as the mechanism to remediate this issue. The proponent does not describe interim measures to collect and manage leachate. ECCC acknowledges that a new facility may be required to prevent further leachate from the landfill. However, given the poor quality of leachate, the proponent should provide information on:

- The quantity of leachate



- where the leachate is occurring and reporting to; and
- what measures are being undertaken to collect all leachate such that it is not discharge to the receiving environment.

ECCC Recommendation(s)

ECCC recommends that the proponent take measures to attempt to capture all leachate from the landfill site, for appropriate management such that the leachate does not discharge to the receiving environment. In addition, the proponent should provide information on the quantity, and locations of leaching, as well as overall leachate management.

2. Monitoring Results

Reference(s)

- *Hamlet of Pond Inlet 2019 Monitoring Results.*

Comment

The Proponent has included monitoring data for five different monitoring stations. However, it is not clear to ECCC where this sampling occurred, because the proponent did not provide a figure that indicated sampling locations or the effluent flow path. In addition, although the proponent did include sampling data, they did not include associated QA/QC results (i.e., trip blank, field blank, duplicates) with the submission.

ECCC Recommendation(s)

ECCC recommends that the proponent:

- provide a figure depicting monitoring locations and general site layout
- provide QA/QC data associated with the 2019 monitoring results.

3. Effluent Quality

Reference(s)

- *Municipality of Pond Inlet Plan for Compliance Licence No. 3BM-PON1520*

Comment

As per the 'Plan for Compliance', the Proponent indicates that all wastewater discharges associated with PON-4 comply with the licence limits, and refers the reviewer to the 2019 monitoring results. Upon review of these results (October 2019 wastewater), ECCC notes that the following parameters exceed relevant effluent quality criteria:

- TSS – 680 mg/L (EQC = 180 mg/L)
- BOD5 – 245 mg/L (EQC = 120 mg/L)

In addition to this, the concentrations of ammonia as nitrogen (86 mg/L) and iron (24.3 mg/L) are elevated, and may cause impacts to aquatic life. The proponent has not provided any mitigation measures to address these exceedances in effluent quality criteria, or indicated what are the potential impacts to aquatic life. ECCC notes that work is underway to finalize

development of the Northern Wastewater Regulations, and that upon enactment of those regulations it will be necessary to meet standards that are below current discharge quality achieved by the Pond Inlet treatment system.

ECCC Recommendation(s)

The Proponent should identify measures to optimize current treatment, and to improve effluent quality for the long term.

4. Updates to Plan for Compliance

Reference(s)

- *Municipality of Pond Inlet Plan for Compliance Licence No. 3BM-PON1520*

Comment

ECCC notes that not all sections of the *Plan for Compliance* have been updated with information relevant to the 2020 renewal process, and that several sections still contain references to planned activities in 2014 (i.e., from during the previous renewal process).

ECCC Recommendation(s)

ECCC recommends the Proponent revise the *Plan for Compliance* in order to ensure that all information provided is updated and relevant to the current water licence renewal process.

If you need more information, please contact Eva Walker at (867) 669-4744 or Eva.Walker@Canada.ca.

Sincerely,

[*Original signed by*]

Eva Walker
Environmental Assessment Coordinator

Attachment(s):

cc: John Olyslager, Acting Head, Environmental Assessment North (NT and NU)