



Environmental Protection Operations Directorate
Prairie & Northern Region
150-123 Main Street
Winnipeg, MB R3C 4W2

November 2, 2021

CER File: 3BM-YRB1621

Manager of Licensing
Nunavut Water Board
P.O. Box 119, Gjoa Haven, Nunavut X0B 1J0
Phone: (867) 360-6338; Fax: (867) 360-6369;
E-mail: licensing@nwb-oen.ca

Attention: Manager of Licensing,

RE: Technical Review of Water Licence Renewal Application – Hamlet of Resolute Bay Airport Sewage Lagoon (3BM-YRB1621)

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) for the above noted Water Licence renewal (the Project), file number 3BM-YRB1621 submitted by The Government of Nunavut – Department of Economic Development and Transportation (the Proponent). ECCC's specialist advice is provided based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

Should you require further information, please contact me at (431) 813-6448 or christopher.aguirre@canada.ca.

Sincerely,

Christopher Aguirre

Christopher Aguirre
A/Senior EA Officer, Prairie and Northern Region

Attachment: ECCC comments on The Government of Nunavut – Department of Economic Development and Transportation, Renewal Application for the Resolute Bay Airport Sewage Lagoon



TOPIC: Oil and grease EQC

Reference(s):

1. Current water licence

ECCC comment:

The current water licence Effluent Quality Criteria (EQC) for oil and grease is 'no visible sheen'. A concentration limit should also be included in the EQC, noting that municipal limits are typically 5 mg/L.

ECCC recommendation:

As the water licence is associated with an airport, ECCC recommends that the EQC for oil and grease include both 'no visible sheen' and a maximum average concentration limit as determined by the Board.

TOPIC: Management plans

Reference:

1. Water licence renewal application for Resolute Bay Airport Sewage Lagoon (Sept 2021)

ECCC comment:

The water licence renewal application included a spill contingency plan, but did not include operational or monitoring plans for review. The compliance plan indicates that the O&M manual, QA/QC Plan and Spill Contingency Plan of the existing sewage disposal facility remain unchanged.

ECCC recommendation:

ECCC recommends that operational and monitoring plans (e.g., O&M manual, QA/QC Plan) be updated as needed and provided for review and Board approval.

TOPIC: Field monitoring

Reference:

1. Monitoring program

Comment:

ECCC notes that it is important to record ambient conditions as well as any notable conditions that occur at the time of sampling, in order to support the interpretation of SNP monitoring results.

Recommendation:

ECCC recommends measuring and recording the ambient conditions (including precipitation, wind speed and direction, air temperature, and pH and temperature of receiving waterbody) and any other notable conditions (such as algal growth) at the time of SNP sampling, and using this information to support the interpretation of monitoring data. Field measurements should be set out in the monitoring plan(s) and results provided in annual water licence reports.

TOPIC: Quality control sampling

Reference:

1. QA/QC Plan

Comment:

ECCC provides the following general recommendation for the QA/QC Plan.

Recommendation:

ECCC recommends that the QA/QC Plan include the following quality control sampling information:

- (1) In consultation with the analytical laboratory, describe how and when to collect duplicate samples, field blanks and travel blanks;
 - (2) Incorporate at least one travel blank per sampling event; and
 - (3) Ensure that the quality control samples represent at least 10% of the total samples collected.
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