

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

ECCC File: 6200 000 025/007
NWB File: 3AM-CHE----



April 12, 2023

via email at: licensing@nwb-oen.ca

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

Dear Richard Dwyer:

RE: 3AM-CHE---- – Hamlet of Chesterfield Inlet – Type A Water Licence Application, Information Requests and Initial Technical Comments

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Type A Water Licence Application.

ECCC provides expert information and knowledge to project assessments on subjects within the department's mandate, including climate change, air quality, water quality, biodiversity, environmental preparedness and emergencies. This work includes reviewing proponent characterization of environmental effects and mitigation measures, and providing advice to decision makers on activities needed to mitigate these environmental effects. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

1. Clarification for Open Burning Procedures

References

- Licence Condition, Part D, D-8, Plan for Compliance, Licence No. 3BM-CHE1523
- Licence Condition, Part D, D-9, Plan for Compliance, Licence No. 3BM-CHE1523
- ECCC Solid Waste Management for Northern and Remote Communities, Planning and Technical Guidance Document, March 2017 (available at <http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=97182135-1>)



- Table 2. Waste That Can be Burned or Incinerated, Government of Nunavut Environmental Guideline for the Burning and Incineration of Solid Waste (available at https://www.gov.nu.ca/sites/default/files/guideline_-_burning_and_incineration_of_solid_waste_2012.pdf)

Comment

ECCC guidelines, as represented in the ECCC Solid Waste Management for Northern and Remote Communities, Planning and Technical Guidance Document, March 2017, discourages the use of open burning.

The Government of Nunavut guidelines, as represented in Table 2 of the Environmental Guideline for the Burning and Incineration of Solid Waste, restricts open burning to paper products, cardboard, untreated wood, and natural fiber textiles only.

Row D-8 in the Plan for Compliance lists several items that shall not be subject to open burning; but, it is unclear from the description given, if they are consistent with the Government of Nunavut guidelines.

Row D-9 in the Plan for Compliance states that the “Licensee shall provide a minimum of ten (10) days’ notice to an Inspector, of the intent to open burn municipal Waste.” The actual timing of burning needs to consider meteorological factors such as presence of precipitation, wind speed, and wind direction. This is detailed in Section 5.2 of the Operation & Maintenance Plan for Chesterfield Inlet Municipal Water Licence: Solid Waste Disposal Facilities.

ECCC Recommendation

ECCC recommends that the Proponent investigate alternative waste disposal practices, which minimize or eliminate the use of open burning to the extent practical. If open burning cannot be avoided, ECCC requests confirmation that appropriate meteorological conditions will be met for open burning procedures to be implemented.

2. Sludge Management

Reference

- Section 7.0 Maintenance, Operations & Maintenance Plan for Chesterfield Inlet Municipal Water Licence: Sewage Disposal Facilities 2022

Comment

The Operations and Maintenance Plan notes that “sludge is typically monitored annually to determine its volume and physical and chemical characteristics.” However, the plan also states that “the sewage sludge has not been sampled in Chesterfield Inlet. Before an appropriate sludge management plan can be developed, the sludge should be sampled to obtain its chemical and physical characteristics. Additionally, the volume of sludge in the detention cells should be measured.” These statements are contradictory as the first indicates that sludge is monitored annually, while the second states that sludge has never

been sampled. In addition, the plan states that sludge should be sampled, but provides no additional details on when this may occur.

ECCC Recommendation

ECCC recommends the Proponent:

- i. Clarify whether there is any planned future sludge monitoring given that monitoring has not yet been completed at the sewage disposal facility.
- ii. Describe whether sludge monitoring is proposed to occur on a regular basis, and if so, the frequency.
- iii. Discuss whether the sewage disposal facility is experiencing any decreases in treatment performance based on sludge volumes.

3. Solid Waste Facility Runoff

Reference

- Section 1.2 SWDF Site Summary, Operation & Maintenance Plan for Chesterfield Inlet Municipal Water Licence: Solid Waste Disposal Facilities 2022
- Section 8.0 Surface Water Management, Operation & Maintenance Plan for Chesterfield Inlet Municipal Water Licence: Solid Waste Disposal Facilities 2022

Comment

Section 1.2 of the Plan details that any runoff from the municipal solid waste facility flows into the sewage disposal facility. However, Section 8.0 describes procedures to collect and analyze any water collected prior to discharge. It is not clear whether runoff from the facility freely flows towards the sewage disposal facility, or whether efforts are made to collect any water associated with the solid waste disposal facility so that it does not enter the surrounding environment.

ECCC Recommendation

ECCC recommends that the Proponent provide additional detail on runoff collection practices for the solid waste facility, including those that may prevent runoff to the surrounding environment. ECCC further recommends that the Proponent clarify whether all runoff associated with the solid waste facility is collected and tested prior to discharge into the surrounding environment.

4. Errata

Reference

- Section 5.3 Hazardous Waste Management, Operation & Maintenance Plan for Chesterfield Inlet Municipal Water Licence: Solid Waste Disposal Facilities 2022

Comment

The updated Operations and Maintenance Plan includes references to Coral Harbor, rather than Chesterfield Inlet in Section 5.3.

ECCC Recommendation

ECCC recommends that the Proponent update the Plan, removing references to Coral Harbour, and confirm that details provided in the plan are consistent with practices at Chesterfield Inlet.

5. Contact Information

Reference

- Table 4.1.1 Spill Response Contact List, Hamlet of Chesterfield Inlet, Environmental Emergency Contingency Plan
- Environmental Emergency Contacts, Government of Canada (available at <https://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/report-emergency.html>)

Comment

In Table 4.1.1, the contact number listed for Environment Canada (780-951-8861) is a number assigned to an individual ECCC employee. As per the new procedures for spill reporting listed on the Environmental Emergency Contacts webpage, in the event of an environmental emergency, the Proponent is to contact the NT-NU 24-hour Spill Report Line at 1-867-920-8130. These authorities will inform ECCC of the emergency event. The purpose of the new spill reporting procedures is to establish a streamlined notification system and reduce duplication of effort for persons required to notify Federal and Provincial/Territorial Governments of an environmental emergency.

ECCC Recommendation

In the case of a spill or emergency, the 24 Hour Northwest Territories Spill Report Line should be contacted first by the Proponent, who will then involve ECCC Emergencies when appropriate.

The ECCC National Environmental Emergencies Centre (NEEC) will provide technical and scientific environmental advice and assistance to the lead agency, in the event of an environmental emergency. A lead agency is described as the governmental authority that regulates or has authority over the activity from which the emergency originated. NEEC can be contacted at 1-866-283-2333.

If you need more information, please contact Stephinie Mallon at Stephinie.Mallon@ec.gc.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'Margaret', with a stylized flourish at the end.

Margaret Fairbairn
Acting Regional Director – Prairie & Northern Region

cc:

Melissa Pinto, Acting Head – Environmental Assessment North (NT and NU), Environmental
Protection Operations Directorate