

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

ECCC File: 4703 003 013
NWB File: 2AM-DOH1335



July 26, 2026

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: 2AM-DOH1335 – Agnico Eagle – Roberts Bay Fuel Tank Farm – Design Report Review

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Fuel Tank Farm.

ECCC provides expert information and knowledge to project assessments on subjects within the department's mandate and within federal jurisdiction, including greenhouse gas emissions and climate change, air quality, water quality and quantity, migratory birds, species at risk, environmental emergencies preparedness and response, and climate and meteorology. This work includes reviewing proponent's characterization of environmental effects and proposed mitigation measures, and providing information and knowledge to decision-makers on activities needed to mitigate these environmental effects within federal jurisdiction. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comment is provided:

1. Topic: Permafrost Considerations and Long-Term Stability

Reference(s)

- 260615 2AM-DOH1335 Design Report Roberts Bay Fuel Farm-Phased-ILAE, Section 4.2.1, p.21



Comment

The proponent has not clearly demonstrated how permafrost conditions and associated ground stability considerations have been integrated into the design of the fuel tank farm infrastructure. While the report describes excavation conditions and the use of granular materials and a geomembrane liner system, it does not explicitly address the presence, extent, or characteristics of permafrost at the site, nor how freeze-thaw processes have been incorporated into the design basis.

Given the project's location in Nunavut, permafrost degradation, frost heave, and long-term settlement represent credible risks that could compromise the integrity of critical containment structures, including tank foundations, berms, and the liner system. These processes may result in differential settlement, liner deformation or failure, and reduced containment capacity, all of which could increase the risk of fuel release to the environment.

ECCC Recommendation(s)

ECCC recommends that the Proponent:

- Provide a site-specific permafrost assessment, including ground ice content, active layer thickness, and anticipated changes under current and future climate conditions;
- Demonstrate how permafrost-related risks (e.g., thaw settlement, frost heave, differential movement) have been incorporated into the design of tank foundations, containment berms, and liner systems;
- Describe any mitigation or adaptation measures (e.g., thermal management, insulation layers, foundation design modifications) that will be implemented to maintain structural integrity and containment performance over the life of the project.

If you need more information, please contact Anna Graham at Anna.Graham@ec.gc.ca.

Sincerely,

Anna Graham
Environmental Assessment Officer

cc: Eva Walker, Head, Environmental Assessment North (NT and NU)