



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
2AM-MEA1530
Our file - Notre référence
GCDOCS#100712575

February 17, 2022

Mr. Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's review comments on Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan, version 6, for Water Licence 2AM-MEA1530

Dear Mr. Richard Dwyer,

Thank you for your January 17, 2022 email request for review of and comments on the above-noted environmental performance monitoring plan.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan (Version 6) pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

CIRNAC appreciates the opportunity to participate in this review. If there are any questions, please contact me at david.zhong@rcaanc-cirnac.gc.ca, or Andrew Keim at andrew.keim@rcaanc-cirnac.gc.ca.

Sincerely,

David Zhong
Regulatory and Science Advisor



Technical Review Memorandum

Date: February 17, 2022

To: Richard Dwyer, Manager of Licensing, Nunavut Water Board

From: David Zhong, Regulatory & Science Advisor, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's review comments on Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan, version 6, for Water Licence 2AM-MEA1530

Region: Kivalliq

A. BACKGROUND

The Baker Lake Bulk Fuel Storage Tank Facility (the facility) is located east of the Hamlet of Baker Lake, on the north shore of Baker Lake, in the Kivalliq Region of Nunavut. The GPS coordinates of the facility are NAD 83 15W E 356874 N 7134486.

The facility receives and stores bulk shipments of fuels (diesel and Jet-A) for the operations of the Meadowbank Gold Mine Project and the Whale Tail Gold Mine Project, approximately 70 kilometers and 150 kilometers, respectively, north of the Hamlet of Baker Lake. Ore mined on the Whale Tail Project site is hauled by truck to the Meadowbank Mine Project site for processing.

Prior to January 2019, the facility had six (6) 10 million litres fuel storage tanks for diesel and eighteen (18) 100,000L fuel storage tanks for Jet-A. In January 2019, Agnico Eagle received approval to add two (2) 10 million liters diesel fuel storage tanks to the facility. One of the tanks (Tank #7) was added to the facility in September 2019 and the second tank (Tank #8) was added to the facility in October 2021.

On January 17, 2022, Agnico Eagle submitted an updated Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan (i.e., version 6) to the Nunavut Water Board (NWB), as per its Water Licence 2AM-MEA1530.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the updated Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan (version 6) pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. A summary of the subjects of CIRNAC's comments and recommendations regarding the plan can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments are in Section C.



Table 1: Summary of Comments and Recommendations

Recommendation Number	Subject
R-01	Showing Tank #7 and Tank #8 in Figure 1-1
R-02	Monitoring integrity of HDPE membrane liner
R-03	Monitoring and leak detection

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan, version 6	Agnico Eagle Mines Limited – Meadowbank Complex, January 2022
Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products	Canadian Council of Ministers of the Environment, 2003



C. RESULTS OF REVIEW

1. Showing Tank #7 and Tank #8 in Figure 1-1

Comment:

Figure 1-1 shows the general location and layout of the Baker Lake Bulk Fuel Storage Facility. CIRNAC notes, however, that while Tank #1 to Tank #6 are clearly shown in the figure, the new Tank #7 and Tank #8 do not appear in the figure.

Recommendation:

(R-01) CIRNAC recommends that Figure 1-1 be updated so that Tank #7 and Tank #8 can be clearly identified and shown in the figure.

2. Monitoring integrity of HDPE membrane liner

Comment:

Section 4.3.3 of the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan states that *“(D)ue to the site grading, all contact water from the bulk fuel storage facility is directed inside the HDPE lined secondary containment area. Should the integrity of the liner become compromised, there could be leakage into the below grade soil; this would likely present the greatest source of hydrocarbon contamination to impact groundwater and receiving water.”* CIRNAC concurs with the Licensee on the importance of the integrity of the HDPE membrane liner and notes the absence of any measures to monitor the integrity of the HDPE membrane liner in the Environmental Performance Monitoring Plan.

Recommendation:

(R-02) CIRNAC recommends that the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan (Version 6) be updated to include monitoring and preventive measures on ensuring the integrity of the HDPE membrane liner in the Baker Lake Bulk Fuel Storage Facility.

3. Monitoring and leak detection

Comment:

It is stated that the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan is *“(T)o adequately assess the environmental performance of the bulk fuel storage tank at Meadowbank this report provides: a summary of the design, installation, operation and maintenance that follows the CCME (2003) Environmental Code of Practice*



for Aboveground Storage Tank Systems Containing Petroleum and Allied Petroleum Products; a summary of the location and environmental setting; a summary of the NWB Type A water license requirements; and an environmental assessment to support the recommended environmental monitoring for the ongoing evaluation of the secondary containment.”

Part 6 of the *CCME (2003) Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products* prescribes the specific requirements for the monitoring and detection of leaks within a storage tank system.

CIRNAC notes the lack of specifics regarding monitoring and leak detection in the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan. It is not clear if and how the specific requirements for the monitoring and detection of leaks within a storage tank system as prescribed in the *CCME (2003) Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products* are being fulfilled and/or met.

Recommendation:

(R-03) CIRNAC recommends that the Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan (Version 6) be updated to address the specific requirements prescribed in Part 6 of the *CCME (2003) Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*.