



Crown-Indigenous Relations  
and Northern Affairs Canada

Relations Couronne-Autochtones  
et Affaires du Nord Canada

Water Resources Division  
Resource Management Directorate  
Nunavut Regional Office  
P.O. Box 100  
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Your file - Votre référence  
2AM-MRY1325  
Our file - Notre référence  
CIDM#1225078

August 10, 2018

Licence Administrator  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0B 1J0  
E-mail: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on Baffinland Iron Mines Corporation's Notification of Planned Construction Work, Mary River Mine Site Fuel Storage Facility and 15ML Arctic Diesel Tank, Mary River Project (Water Licence 2AM-MRY1325 – Amendment No. 1)**

Dear Ms. Porter,

Thank you for your August 1, 2018 invitation for questions and comments on the above referenced submission.

The Water Resources Division of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the Notification and the results of our review are provided in the enclosed memorandum for the Nunavut Water Board's consideration. Comments have been provided pursuant to CIRNAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

CIRNAC appreciates the opportunity to participate in this review. If there are any questions or concerns, please contact either me at [bridget.campbell@canada.ca](mailto:bridget.campbell@canada.ca) or (867) 975-4282 or Wajid Daouda at [wajid.daouda@canada.ca](mailto:wajid.daouda@canada.ca) or (867) 975-4657.

Sincerely,

Bridget Campbell  
Water Resource Coordinator

## **Technical Review Memorandum**

To: Ms. Porter, Licence Administrator, Nunavut Water Board

From: Bridget Campbell, Water Resource Coordinator, Water Resources Division,  
CIRNAC  
Wajid Daouda, Senior Engineer Major Projects, CIRNAC

Date: August 10, 2018

Re: Notification of Planned Construction Work, Mary River Mine Site Fuel Storage Facility and 15 ML Arctic Diesel Tank, Mary River Project (Water Licence 2AM-MRY1325 – Amendment No. 1)

Applicant: Baffinland Iron Mines Corporation  
Project: Mary River Project  
Region: Qikiqtani

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### **A. BACKGROUND**

On August 1, 2018, Baffinland Iron Mines Corporation (Baffinland) submitted the above-noted Notification of Planned Construction Work at the Mary River Project (Project) to the Nunavut Water Board (Board) on Water Licence 2AM-MRY1325 – Amendment No. 1, specifying the planned construction work. This work includes building a 15 Million Litre Arctic Diesel Tank and fuel containment berm at the Mary River Mine Site. Baffinland stated that it is critical to complete and install these structures before the last fuel re-sully shipment of the season to allow time to fill the tank.

Baffinland notes that the construction of the fuel containment berm is an approved part of the Project under Project Certificate No. 005 and is within the scope of the Project assessed and approved by the Nunavut Impact Review Board (NIRB). Baffinland also notes that the fuel containment berm is a reconfiguration of the fuel storage depicted in the Final Environmental Impact Statement (FEIS).

The details and engineering designs of the planned construction work activities are presented in Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility (Hatch, July 26, 2018) and Attachment 2: For Construction Drawings, (Hatch, Signed July 25, 2018) of Baffinland's submission.

## **B. RESULTS OF REVIEW**

The Water Resources Division of Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC) Nunavut Regional Office reviewed the documents associated with Baffinlands Notification of Planned Construction Work and would like to provide the following comments and recommendations for the Board's consideration.

### **1. Tank size and number**

#### Reference:

- Notification of Planned Construction Work – Mary River Mine Site Fuel Storage Facility and 15 ML arctic Diesel Tank, Mary River Project, Water Licence 2AM-MRY1325, Baffinland Iron Mines Corporation, August 1, 2018
- Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility, Hatch, July 26, 2018
- Attachment 2: For Construction Drawings, Hatch, Signed July 25, 2018
- Final Environmental Impact Statement and Addendum, Nunavut Impact Review Board, June 2013
- 2018 Work Plan, Baffinland Iron Mines Corporation, November 1, 2017

#### Comment:

CIRNAC notes that the Notification of Planned Construction Work submission presents the design of a diesel tank with a storage capacity of 15 million litres (ML). The volume of diesel fuel permitted to be stored at the Mary River Mine Site is consistent with the FEIS. However, the FEIS states that Baffinland was approved for three 5 ML diesel storage tanks, with a total capacity of 15 ML (which was unchanged in the FEIS addendum, 2013) with no mention of a single tank with a 15 ML capacity. In addition, the 2018 Work Plan shows no mention of building a 15 ML diesel tank at the Mary River Mine Site this year. No feasibility plans were shared explaining the rationale for changing the original scope approved by the NIRB, which is important to clarify on the basis of the ground loading capacity.

#### Recommendation:

CIRNAC requests further clarification, such as a feasibility study including an options analysis, for the rationale to change the scope from three 5 ML tanks to one 15ML tank. We also seek information on how such a construction would change the reclamation security estimate.

CIRNAC recommends that the Board clarifies the discrepancy with NIRB.

## **2. Berm capacity**

### Reference:

- Notification of Planned Construction Work – Mary River Mine Site Fuel Storage Facility and 15 ML arctic Diesel Tank, Mary River Project, Water Licence 2AM-MRY1325, Baffinland Iron Mines Corporation, August 1, 2018
- Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility, Hatch, July 26, 2018
- Attachment 2: For Construction Drawings, Hatch, Signed July 25, 2018

### Comment:

The For Construction Drawings for the berm show that three tanks of 15 ML capacity are to be built, while the Design Brief states that only one tank of 15 ML capacity is to be built. CIRNAC interprets this to mean that the berm is designed to accommodate three 15 ML diesel tanks, that only one is to be constructed at this time, and that the other two tanks, also of 15 ML capacity, will be built in the future following NIRB approval.

### Recommendation:

CIRNAC requests confirmation of the above interpretation of planned construction.

## **3. Design Criteria & For Construction Drawings**

### Reference:

- Notification of Planned Construction Work – Mary River Mine Site Fuel Storage Facility and 15 ML arctic Diesel Tank, Mary River Project, Water Licence 2AM-MRY1325, Baffinland Iron Mines Corporation, August 1, 2018
- Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility, Hatch, July 26, 2018
- Attachment 2: For Construction Drawings, Hatch, Signed July 25, 2018

### Comment:

The lack of some drawings information does not concur to a better understanding of the design concept.

### Recommendation:

- i. The indicated dyke sump specifications and details are to be indicated on the drawings.
- ii. Baffinland is to clarify the fuel tank self-weight in connection with the specific gravity of contents (0.78 – 0.82) provided. Baffinland is to indicate this information on the drawing.

#### **4. Spill Contingency Plan update**

Reference:

- Notification of Planned Construction Work – Mary River Mine Site Fuel Storage Facility and 15 ML arctic Diesel Tank, Mary River Project, Water Licence 2AM-MRY1325, Baffinland Iron Mines Corporation, August 1, 2018
- Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility, Hatch, July 26, 2018
- Attachment 2: For Construction Drawings, Hatch, Signed July 25, 2018
- Spill Contingency Plan, Rev. 3, Baffinland Iron Mines Corporation, March 30, 2017

Comment:

CIRNAC notices that the most recent version of the Spill Contingency Plan (Revision 3, 2017) does not include a reference to the planned 15 ML diesel tank and associated berm.

Recommendation:

CIRNAC recommends that the new storage capacity is accounted for in the Spill Contingency Plan the next time it is updated.

#### **5. Proximity of berm to watercourse**

Reference:

- Notification of Planned Construction Work – Mary River Mine Site Fuel Storage Facility and 15 ML arctic Diesel Tank, Mary River Project, Water Licence 2AM-MRY1325, Baffinland Iron Mines Corporation, August 1, 2018
- Attachment 1: Design Brief – Mary River Mine Site Fuel Storage Facility, Hatch, July 26, 2018
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Comment:

CIRNAC notices from the construction drawings presented in Baffinland's Notification of Planned Construction Work that the berm is scheduled to be constructed within thirty-one metres (31 m) of a stream. CIRNAC would like to remind Baffinland that the Licence 2AM-MRY1325 – Amendment No. 1 states in *Part D, Item 25*:

The Licensee shall prevent the deposition of debris or sediment from entering into or onto any Water body, with respect to the construction of access roads, site laydown pads and areas or other earthworks. These materials shall be disposed of at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a manner that they do not enter the Water.