



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU X0A 0H0

Your file - Votre référence  
2AM-MRY1325

August 4, 2017

Our file - Notre référence  
CIDM#1166497

Ida Porter  
Licensing Administrator  
Nunavut Water Board  
Gjoa Haven, NU X0B 1J0

**Re: Indigenous and Northern Affairs Canada's (INAC) comments on Baffinland Iron Mines Corporation's modification request for increasing the Milne Inlet fuel storage facility capacity under water licence #2AM-MRY1325  
Amendment #1 – Mary River Project**

Dear Ms. Porter,

Thank-you for the email notice received on July 14, 2017 regarding the above mentioned modification request.

INAC Water Resources Division reviewed Baffinland's modification request and the results of our review are presented in the enclosed memorandum for the Board's consideration. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me at 867-975-3876 or [sarah.forte@aandc-aadnc.gc.ca](mailto:sarah.forte@aandc-aadnc.gc.ca) for any additional information.

Regards,

Sarah Forté  
Water Management Coordinator

## **Technical Review Memorandum**

To: Ida Porter, Licensing Administrator, NWB

CC: Andrew Vermeer, Regulatory Reporting Specialist, Baffinland

From: Sarah Forté, Water Management Coordinator, INAC

Date: July 28, 2017

Re: Modification Request for Water Licence #2AM-MRY1325 Amendment #1 – Milne Inlet Fuel Storage Facility Capacity Increase

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

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### **A. BACKGROUND**

Every November, Baffinland Iron Mines Corporation (Baffinland) submits a workplan for their type A water licence 2M-MRY1325 amendment #1. This water licence covers mining activities associated with the Mary River iron mine, which has two principal sites, the Mine Site, approximately 100 km inland, and the Milne Port, at the southern tip of Milne Inlet. At the end of May 2017, Baffinland submitted an addendum to their 2017 workplan.

The principal activities described in the workplan addendum were:

- installing an 800 person camp and associated facilities at the Mine Site,
- installing a rapid deploy 50 person camp and a 380 person temporary camp at the Milne Port,
- adding laydowns at Milne Port, and
- increasing the fuel storage capacity at Milne Inlet.

The Nunavut Water Board (NWB or Board) requested comments on the proposed workplan addendum and both the Qikiqtani Inuit Association (QIA) and Indigenous and Northern Affairs Canada (INAC) submitted comments on June 28, 2017. INAC's principle comment was that certain proposed activities were outside the project scoped by the Nunavut Impact Review Board (NIRB) and the water licence.

The present modification request is for increasing the capacity at the Milne Inlet fuel storage facility. The proposal is to increase capacity for arctic diesel from the current 46 ML to 64 ML, and for Jet A-1 from the current 1.5 ML to 2.25 ML. The construction

would see the new tanks installed in the existing fuel storage facility and modifications to the existing piping. The documents provided include calculations indicating the secondary containment volume at the existing facility would be 21 418 m<sup>3</sup>, which meets the requirements of 110% of the volume of the largest tank, which in this case would be 15 000 m<sup>3</sup>.

## B. RESULTS OF REVIEW

On behalf of the Water Resources Division of INAC, the following comments and recommendations are provided for the Board's consideration:

### 1. Proposed modification outside scope of licence

#### References:

- RE: Mary River Project – Milne Inlet Fuel Storage Capacity Increase (Modification Request), Water Licence 2AM-MRY1325 – Amend. No. 1, Baffinland, July 12, 2017
- Re: 2017 Work Plan Addendum for Water Licence #2AM-MRY1325 Amendment #1, INAC, June 28, 2017

#### Comment:

The proposed expansion of the fuel facility is outside the scope of the project as it has been assessed by the Nunavut Impact Review Board (NIRB) for the project certificate and the water licence issued by the NWB. INAC had made this comment in our June 28, 2017 submission regarding the work plan amendment and re-iterate it here.

Baffinland writes that their modification request is consistent with the requirements of Part G of their Water Licence, and by extension, their NIRB project certificate and NWB water licence. The request contains a table summarizing the different tank volumes.

Fuel type	ERP <sup>1</sup> project description (ML)	ERP volume + 20% (ML)	Current tank volume (ML)	Proposed tank volume (ML)
Arctic Diesel	46	55.2	46 <sup>2</sup>	64
Jet A-1	1.5	1.8	2.25 <sup>2</sup>	3

<sup>1</sup> ERP Early Revenue Phase

<sup>2</sup> Table 7-1 of the March 30, 2017 Spill Contingency Plan indicates the combined maximum fuel storage capacity for Jet A-1 and diesel at Milne Port is 43.3 ML.

The initial project ERP project description was for the shipment of 3.5 Mt/year of iron ore. During NIRB hearings, discussion to allow for operational flexibility allowed for an

increase of in ore shipment of up to 20%. This could be used to justify increasing infrastructure by up to 20%, as calculated in the third column.

In their modification request, Baffinland propose they would need an extra 20% as an operational contingency, as well as an extra 12% to account for tank fill factor. *“The fill factor is to allow for empty space at the top of the tank for gas and thermal expansion and inaccessible space at the bottom of the tank below the outlet pipe.”* The extra for tank fill factor is needed for both diesel and Jet A-1, and the extra operational contingency is only needed for the diesel.

Baffinland staff confirmed over the phone that the 20% for operational contingency was distinct from the 20% increase between the ERP initial project description and final certified project.

INAC is of the opinion that operational contingency and tank fill factor are elements that would be taken into account when determining the fuel storage capacity of a project. Therefore, they would already have been incorporated in the ERP project description and there should only be one 20% increase of the originally proposed numbers allowed for operational flexibility. The proposed tank volume increase is 39% for arctic diesel and 50% for Jet A-1, which is outside the scope of the project certificate and water licence.

Recommendation:

As in our comments regarding the workplan amendment, INAC recommends the licensee submit amendment applications to the NIRB and NWB to seek authorization for the proposed changes.

**2. Reclamation cost**

References:

- 2017 Work Plan Addendum, Baffinland Iron Mines Corporation, May 26, 2017

Comment:

If this modification was accepted by the Board, it would be necessary for the additional infrastructure to be accounted for in the reclamation cost. Before Baffinland can bring material not included in the November 2016 version of the 2017 workplan to site, or execute any work not described in the plan, the NWB must set the amount of security to be held for the project's reclamation. INAC will want time to review and comment on the updated reclamation cost.