

NIRB File No.: 08MN053

NWB File No.: 2AM-MRY1325 - Amendment No. 1/G1

September 29, 2017

Todd Burlingame VP, Sustainable Development Baffinland Iron Mines Corporation 2275 Upper Middle Road East, Suite 300 Oakville, ON L6H 0C3

Sent via email: todd.burlingame@baffinland.com

Re: <u>Mary River Project - Crusher Pad Sedimentation Pond Expansion Request for Project Certificate Review</u>

# Dear Todd Burlingame:

On September 27, 2017, the Nunavut Impact Review Board (NIRB or Board) received the enclosed "Mary River Project – Crusher Pad Sedimentation Pond Expansion" project proposal from Baffinland Iron Mines Corporation (Baffinland or the Proponent), which requested approval for increasing the capacity of the Crusher Pad Sedimentation Pond (Sedimentation Pond) at the Mary River Mine Site. In submitting its Sedimentation Pond Expansion project proposal to the NIRB, the Proponent requested that the NIRB complete a review of the proposal, and indicate to Baffinland and the Nunavut Water Board (NWB) if the proposed upgrades are consistent with the NIRB's amended Project Certificate (No.005) in order to enable Baffinland carry out the modification under the existing Type "A" Water Licence (2AM-MRY1325) for the Mary River Project. All materials related to this request can be obtained from the NIRB's online public registry at <a href="https://www.nirb.ca">www.nirb.ca</a> by using any of the following search criteria:

Project Name: Mary River Project

NIRB File No.: 08MN053Application No.: 123910

#### SUMMARY OF THE MODIFICATION REQUEST

In its request to the NIRB, Baffinland indicated that it proposes to increase the capacity of the Sedimentation Pond in order to comply with the NWB's conditional approval of the 2017 Crusher Pad expansion.<sup>1</sup> The proposed expansion is anticipated to increase the capacity of the

<sup>&</sup>lt;sup>1</sup> The NIRB notes that on May 19, 2017 it provided its determination to the NWB that the scope of the modification request to expand the crusher pad footprint by 10% under the Type "A" Water Licence did not conflict with the existing terms and conditions of the amended Project Certificate (No. 005) as issued by the NIRB.

Sedimentation Pond from the current 2,750 cubic metres (m³) to approximately 3,950 m³. To facilitate this expansion, Baffinland is proposing to raise and widen the existing berm and liner on the north, west, and south sides of the Sedimentation Pond and construct a six (6) metre wide spillway and stilling basin, in the same location as the existing spillway. This expansion would not compromise the integrity or capacity of the existing Sedimentation Pond and the existing sandbags located in the spillway would continue to remain in place until the Sedimentation Pond's expansion is completed.

In its modification request Baffinland noted that the proposed expansion to the Sedimentation Pond incorporated a contingency for an additional future pad expansion of 6,000 square metres (m<sup>2</sup>). However, Baffinland clarified that it is not currently requesting the pad expansion and stated that a separate Request for Modification would be submitted to the NWB should any future expansions of the Mine Site Crusher Pad be required.

According to the Modification Request, the following undertakings, works, or activities would occur:

## Berm Upgrades:

- Raise the existing berm on the north, west, and south sides of the Sedimentation Pond by approximately 0.5 meters (m) (to crest elevation of 192.82 m);
- Widen the crest of the berm to approximately six (6) m;
- Extend the Sedimentation Pond liner to the new crest elevation by welding a new strip of liner to the existing liner;
- Install geotextile material between the bedding layer and the geomembrane (depending on angularity and quality of the fineness of the screened sand or crusher fines); and
- o Anchor the liners into a trench at the crest of the berm.

## Spillway Upgrades:

- o Raise the spillway invert by approximately 0.3 m to a crest elevation of 192.28 m, and widen the spillway to 6 m;
- o Install a liner along the length of the spillway to terminate at a stilling basin; and
- o Use geotextile material as an underlay to protect the integrity of the stilling basin.
- Conduct environmental monitoring activities around the facility:
  - Undertake daily water quality monitoring of water drainage from the construction site using the existing Surveillance Network Program monitoring locations;
  - o Take photographs of the Sedimentation Pond before, during, and after construction activities; and
  - o Implement sediment and erosion control measures if meltwater or runoff is observed during construction.

Additionally, Baffinland outlined its understanding that as the proposed Sedimentation Pond expansion is an upgrade to an existing facility, and is a requirement under the NWB's conditional approval of the 2017 Crusher Pad expansion, the proposed modification would be consistent with the approved activities outlined in the amended Project Certificate (No. 005) issued for the Mary River Project by the NIRB.

#### NIRB ASSESSMENT AND DECISION

The NIRB is of the view that the proposed modifications to the Crusher Pad Sedimentation Pond under the Type "A" Water Licence for the Mary River Project as described in the materials provided to the NIRB do not appear to be in conflict with the existing terms and conditions of the amended Project Certificate No. 005 as issued by the NIRB, nor do they appear to be beyond the scope of the project as assessed and approved by the NIRB. In reaching this decision, the NIRB reminds the Proponent that strict adherence to the terms and conditions of the amended Project Certificate No. 005 (16, 17, 22, 23, 24, 25, 26, 28, 29, 31, 46, 69, 70 and 75) continues to be required for this specific Sediment Pond Expansion request and the Mary River Project. Should you have any questions or require clarification related to the NIRB's monitoring program for the Mary River Project, please contact the undersigned at (867) 983-4603 or <a href="mailto:samuno@nirb.ca">samuno@nirb.ca</a>.

Sincerely,

Solomon Amuno, PhD Technical Advisor II

Nunavut Impact Review Board

cc: Wayne McPhee, Baffinland Iron Mine Corporation

Adam Grzegorczyk, Baffinland Iron Mine Corporation David Hohnstein, Nunavut Water Board Sean Joseph, Nunavut Water Board Karén Kharatyan, Nunavut Water Board

Mary River Distribution List

Enclosures (1): Mary River Project – Crusher Pad Sedimentation Pond Expansion Request for Project Certificate Review (September 27, 2017)