



10 January 2019

Assol Kubeisinova  
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**RE: Response to Crown Indigenous Relations and Northern Affairs Canada Comments  
Interim Closure and Reclamation Plan, Revision 5**

Baffinland Iron Mines Corporation (Baffinland) provides this letter to the Nunavut Water Board (NWB), in response to the comments received from Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)<sup>1</sup> on the Interim Closure and Reclamation Plan (ICRP), Revision 5.

We trust that the attached provides sufficient clarification for the NWB and CIRNAC to provide approval of Revision 5 of the ICRP. Please do not hesitate to contact the undersigned should you have any remaining questions or comments.

Regards,

A handwritten signature in black ink, appearing to read "Chris Murray", written over a circular stamp or seal.

Christopher Murray  
Environmental & Regulatory Compliance Manager

Attachments:

Attachment 1: Responses to CIRNAC Comments

Cc: Karén Kharatyan (NWB)  
Fai Ndofor, Sean Joseph (QIA)  
Sarah Forté, Bridget Campbell, Ian Parsons (CIRNAC)  
Grant Goddard, Megan Lord-Hoyle, Tim Sewell (Baffinland)

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<sup>1</sup> CIRNAC (2019) Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on Baffinland Iron Mines Corporation's 2018 Spill Contingency, Interim Closure and Reclamation, and Emergency Response Plans for water licence #2AMMRY1325 – Mary River Project. 7 January 2019

**Attachment 1**

**Responses to CIRNAC Comments**

**Table 1 - Responses to CIRNAC Comments**  
**Interim Closure Reclamation Plan, Revision 5**

No	Comment	Response
1	<p>Sections 5.2.1.2, 5.2.1.5, and 5.2.1.7 refer to predictions from studies submitted in the Final Environmental Impact Statement (FEIS) and FEIS Addendum (AMEC, 2010). These forecasted that ARD would not be an issue for water quality. Field data exists that demonstrates the studies assumptions do not hold, since there is an ARD issue for water quality. Though we recognize that further research is ongoing and new predictions are not yet ready, it is counterproductive to continue referring to predictions which have been disproven.</p> <p><u>Recommendation:</u> If predictions on water quality from the FEIS are mentioned, they should immediately be followed by an acknowledgment that the assumptions used to make the predictions have not held true in the field.</p>	<p>The predictions for the Open Pit referenced in Sections 5.2.1.2, 5.2.1.5 and 5.2.1.7 have not been disproven through the observation of ARD at the Waste Rock Facility, as the presence of ARD is the result of waste rock management practices which are currently being reviewed and revised. The water quality of the discharge from the Open Pit remains an item of uncertainty, which is clearly discussed in Section 5.2.1.7, and for which reclamation research and on-going monitoring will seek to reduce the uncertainty. Until such studies have been completed the predictions remain as the basis for the information regarding future site conditions.</p> <p>Baffinland will continue to evaluate if residual effect predictions are meeting expectations, as outlined in Section G.5 'Ongoing Residual Impact Evaluation'.</p>
2	<p>Sections 1 and 2.1 refer to the 8BC-MRY construction water licence. This licence has been canceled.</p> <p><u>Recommendation:</u> Removing references to this water licence as a relevant regulatory instrument is recommended since this water licence has been canceled and is no longer valid.</p>	<p>Noted. While the appropriate Type 'A' Water Licence is also referenced where the historical licence is referenced, it will be removed in future iterations of the ICRP.</p>
3	<p>The Spill Contingency and Emergency Response Plans were updated to include the new 15 ML diesel tank at Milne Port. Section 5.2.7.1 describes the Milne Port Tank Farm as holding 3-12 ML and 2-5 ML tanks, but the 15 ML tank is not included.</p> <p><u>Recommendation:</u> Including the 15 ML fuel tank at the Milne Port Tank Farm in the next revision of the ICRP is recommended.</p>	<p>Noted, the 15 ML tank will be included in the next revision of the ICRP.</p>
4	<p>Sections 5.2.3.4, 5.2.4.4 and 5.2.8.4 include the statement "Detailed alternative analysis of other closure options have not been completed by Baffinland due to the early stage of the Project and the absence of Project components which represent the largest uncertainty at closure (Open Pit, Permanent Waste Rock Stockpile)." It is CIRNAC's understanding that the waste rock pile currently in use will be expanded to cover much more ground, but it will not be moved. If this is correct, it underlines the importance of developing an effective closure plan as quickly as possible.</p> <p><u>Recommendation:</u> Baffinland clarify whether the currently used waste rock pile is permanent or if it will be moved.</p>	<p>The current Waste Rock Facility is a permanent structure upon which the waste rock deposition will be expanded over the life of the mine.</p>

**Table 1 - Responses to CIRNAC Comments  
Interim Closure Reclamation Plan, Revision 5**

No	Comment	Response
5	<p>Section D5 states: “It should be noted that vegetation is naturally sparse or nonexistent (e.g., waste rock stockpile footprint) over much of the Project Area, and therefore the potential for natural re-vegetation of disturbed Project areas is uncertain. Re-vegetation by reseeding or replanting is not currently being considered by the Project based on the current site conditions and the potential for success in areas not historically vegetated.”</p> <p>CIRNAC agrees that the lack of pre-disturbance vegetation in areas such as the waste rock stockpile does not prompt large re-vegetation efforts in those areas. However other areas do have significant vegetation pre-disturbance. Presently a series of laydown pads is being built in the Phillips’ Creek valley near Milne Port, filling in wetlands, streams and ponds. As noted by Baffinland, “vegetative cover is greater on wetter sites” and a study found “considerable re-vegetation had occurred along the old tote road, particularly in damp areas”.</p> <p><u>Recommendation:</u> Baffinland has committed to studying natural re-vegetation and we recommend they particularly consider what efforts could help re-vegetate previously wet areas.</p>	<p>Baffinland notes the concern and will consider various locations of differing soil strata and moisture content when developing test plot locations.</p>
6	<p>The Reclamation Research Program includes a component for the Open Pit Flooding Timeline (D2). The second task is an assessment of potential water sources/enhanced flooding, which is to include a desktop hydrology study. This is a good beginning and some work has already been done, but field data would likely be necessary to validate the conclusions. This might involve installing a hydrometric station at the proposed abstraction point, which should be done some years in advance to develop an understanding of naturally variable flows.</p> <p>The proposed timeline for the study in Table D-2 is “Should be completed during first 5 years of dewatering.” A reclamation plan for the pit needs to be established prior to its development, so that if the pit needs to be reclaimed at any point, a plan is already in place.</p> <p><u>Recommendation:</u> Baffinland revisit the schedule for the second task of its Open Pit Flooding Timeline Reclamation Research Program to allow it to be completed, and if necessary collect field data, prior to pit development.</p>	<p>Reclamation research studies will be refined over time to address outcomes of existing monitoring and research, as well as gaps as they are identified. However there is field data required to update the mine flooding predictions that will not be available until dewatering activities commence, following pit formation. Some desktop studies may be advanced at an earlier stage. Further discussion with the Mine Closure Working Group, to be developed in 2019, is warranted. Design and timing of this reclamation research program should not be a limiting condition for approval of Revision 5 of the ICRP.</p>
7	<p>The ICRP is a long complex document, and the addition of certain information not directly relevant to reclamation make it longer than it needs to be. Some examples are:</p> <ul style="list-style-type: none"> <li>• Section 5.2.5.1 – Discussion of crushers and lump-to-fine ratios</li> <li>• Section 5.2.7.1 – Slope towards sumps in tank farms</li> <li>• Section 5.2.8.1 – Details of water treatment system including its filters</li> </ul> <p><u>Recommendation:</u> Description of facilities and infrastructure should be limited to information directly pertinent to future reclamation efforts.</p>	<p>Noted. Baffinland continues to improve the readability and usability of the ICRP through each update, while expanding detail where needed. In future iterations of the ICRP Baffinland will endeavor to provide additional clarity where possible and reduce any unnecessary information.</p>