



Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

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Ryan Barry
Executive Director
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU, X0B 0C0
Via electronic mail to: info@nirb.ca

Dionne Filiatrault
Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven NU, X0B 1J0
Via electronic mail to: licensing@nunavutwaterboard.org

Re: Baffinland's New 2012 Application for NLCA 12.10.2(b) Exception and New Type B Water License Application

Thank you for your letter of January 13, 2012 inviting us to comment on Baffinland's January 2012 application to the Nunavut Impact Review Board (NIRB) and the Nunavut Water Board (NWB) for certain project activities to proceed without a review, under section 12.10.2(b) of the *Nunavut Land Claims Agreement* (NLCA). This also included a new Type B water license related to these activities. AANDC has conducted reviews of the NLCA 12.10.2(b) and water license applications and would like to provide the following comments.

Comments to NIRB

AANDC's November 4th letter to NIRB regarding Baffinland's September 15th 12.10.2 (b) exception application contained comments on a suggested approach to the analysis of section 12.10.2 (b) of the NLCA, including comments regarding the evaluation of public and Inuit concerns, enforceability of terms and conditions relating to mitigation and monitoring of exempted activities, and bonding and security. These comments continue to be applicable to the current application, with the exception of the comments noting the exceptional scale of the proposed activities under a 12.10.2 (b) exception application, as this scale has now been considerably reduced. AANDC recommends that NIRB consider whether the nature of the proposed activities are that of a permanent core work, integral to the Project as a whole, or whether their character is ancillary, developmental and temporary. In the event that NIRB allows such activities to proceed without a review, the permanent or ongoing aspects of such works, including



design upgrades, expansion, intensified use, as well as their long term operation, existence and reclamation, should remain part of the overall Project review.

Review Comments

AANDC is aware that Baffinland has reduced the scope of work in this new Mary River Project 2012 Work Plan as well as the project's temporal and spatial boundaries.

In terms of shipping activities, Baffinland indicates quantities of fuel and equipment to be brought to site in terms of "ship movements". It would be helpful if Baffinland could provide more specific information with respect to quantities of equipment, fuel and other chemical substances to be shipped to site, as well as quantities that will remain on site after the project ends in September 2012.

Given the limited scope of project activities, Baffinland has decided to utilize a qualitative methodology in assessing the potential environmental impacts. Baffinland has determined magnitudes of impact for most activities to be at level 1 (lowest) and the residual effects for all Valued Environmental Components (VECs) to be not significant. The assessment only includes the additional project activities that are in the new application for licenses or permits and did not include the activities permitted previously that will also be undertaken within the same project temporal and spatial boundaries. Information regarding these previously permitted ongoing activities cannot be found in the Cumulative Effects Assessment section.

Furthermore, although criteria for qualifiers are listed in Table 5-2 of the work plan, the uncertainty level for the assessment of each VEC has not been provided. This would provide us with an idea of the limitations and accuracy of the assessment results.

Although AANDC does not believe that the results would be different, the limitation in the methodology due to a lack of cumulative impact assessment and uncertainty levels is noted.

Comments to NWB

Comments and recommendations provided here by AANDC regarding the scope and/or extent of proposed activities are subject to decision by the NIRB to allow for the exception, pursuant to Section 12.10.2(b) of the NLCA, for 2012 work in association with the Mary River Project. Pending the NIRB's approval of the application, AANDC recommends that the NWB undertake the water licence application process according to the NLCA.

The following comments/recommendations relate to the water licence application and are provided for the NWB's consideration.

Review Comments



1. The scope of activities proposed in the water licence application

Baffinland's water licence application submission package consists of a Type B water licence application, the 2012 Work Plan, management plans, design drawings and supporting documents. Although not explicitly stated in the submitted application form, the activities being proposed are identified in the submitted 2012 Work Plan. More activities are described in sections 2 to 4 of the 2012 Work Plan than are listed in Table 1-1. It is recommended that a complete list of proposed activities additional to the existing water license be included in the summary table to simplify the review process and minimize confusion.

Baffinland's scope of activities for 2012 was scaled back from the previous application for pre-development works. The proposed 2012 Work Plan focuses on the installation of facilities already permitted under water licence 2BB-MRY1114 and the addition of facilities required to support ongoing exploration and geotechnical investigation activities associated with the Mary River Project. Most activities proposed in the new water licence application are within the scope of a Type B water licence with the exception of the following:

- Decommissioning of the fuel bladders is outside the scope of a new water licence since it is addressed in the existing water licence 2BB-MRY1114.
- Expansion of the sea based geotechnical investigation program is outside of the scope of a water licence as it should not affect freshwater resources. The Department Fisheries and Oceans (DFO) should be consulted on this matter.
- Use of a 10 ML fuel barge or vessel that will anchor and overwinter as Steensby Inlet is considered to be outside of the scope of a water licence because it is marine based. Transport Canada should be consulted in this matter.

2. The quantity of water requested in the water licence application

Baffinland requested the use of 80 m³ of water per day, which is within the Type B licensing criteria for mining and milling undertakings under the *Northwest Territories Waters Regulations*. Of this amount, 30 m³ will be for domestic consumption at the proposed 46-person Steensby camp and is to be drawn from 3 km Lake. Water balance schematics supporting the 2012 Work Plan, submitted with the December 2011 Site Surface Water and Aquatic Ecosystem Plan, do not describe how the requested water withdrawals will affect 3 km Lake.

The water supply being used to support up to 50 m³ for geotechnical and industrial activities has not been clearly identified. It is recommended that the geotechnical and industrial operations requiring water be defined and their respective water sources identified.

It is further recommended that an analysis of drawdown effects be provided for proposed water sources, clearly identifying potential impacts to water quality and/or quantity on Inuit owned lands. The analysis should take into consideration cumulative impacts related to water use authorizations permitted under Baffinland's



existing water licence.

3. The term requested for the new licence

Baffinland requested a four year licence term (April 2012 to April 2016). Considering that they are planning to have a Type A water licence for their Mary River Project before this new licence would expire and that the new Type B water licence would be incorporated into the Type A water licence, AANDC is not opposed to the requested term. It should be noted that if the Project Certificate is not granted, Baffinland will carry out necessary abandonment and reclamation procedures. If necessary, the term of the licence can be altered through a licence renewal application.

4. The appropriateness and adequacy of the environmental management plans and supporting information accompanying the application including design drawings and rationale for proposed facilities.

After review of all management plans and supporting information associated with the water licence application, AANDC offers the following comments and recommendations:

General Comments

It is noted that a supplementary questionnaire was not included in the water licence application. AANDC recommends that a supplementary questionnaire be provided to the NWB, as it contains details that assist the review process including but not limited to the types and quantities of chemicals and fuel to be stored on site for the duration of the water licence.

Management Plans

It is noted that several of the management plans reference activities permitted under the existing 2BB-MRY1114 water licence. AANDC recommends that stand alone documents specific to the activities proposed in the new water licence application be provided to the NWB.

Emergency Response and Spill Contingency Plan

- Section 1.8: Please ensure that all updates and revisions to applicable plans are submitted to reflect on any ground changes.
- Sections 4.0, 4.1.2, 6.2.1.2, 7.0: Several sections either identify the Water Resources Officer as a primary contact for spill reporting or do not identify an AANDC contact at all. AANDC recommends and advises that all spills should be reported to the Nunavut Northwest Territories Spill Line and to the Manager of Field Operations at (867) 975-4295 and that all other references to AANDC representatives be removed from the document. It should also be noted that all spill reports should be included in annual reports.



- Section 4.3: AANDC recommends that training include knowledge of information contained within applicable Material Safety Data Sheets.
- Sections 6.1.1.1 and 6.1.1.2: Both sections refer to an Environmental Protection Plan which could not be located in the application package. AANDC recommends that these plans be submitted to the NWB.
- Section 6.3.1.1: No spill response procedures are available for sewage spills at either Milne Port or Steensby Inlet. AANDC recommends that a spill response be included in the table.
- Section 6.3.1.3: Baffinland states that the distance and direction to the closest body of water depends on the location of the accident. AANDC would appreciate more detail and recommends that best and worst case scenarios be included in the table.
- Relevant MSDS of hazardous materials used onsite were not located in Annex 5 of the plan as indicated in the Table of Contents, nor was it located as a separate document in the water licence application. AANDC recommends that the MSDS of hazardous materials listed in Annex 4 of the plan be provided to the NWB,
- AANDC recommends that the plan include a spill kit equipment list (as included within the Oil Pollution Emergency Plans) and a list of all spill kit locations. These spill locations should be identified on a map along with all locations where fuel and/or chemicals are stored. It is also recommended that spill containment kits be located on fuel trucks.

Oil Pollution Emergency Plans (OPEP) for Milne Port and Steensby Port

- These plans are considered to be outside the scope of a water licence as they address the management of hazardous materials in a marine environment.
- Section 4.3.1: The Steensby Inlet OPEP indicates the presence of a hunting camp in Steensby Inlet which is not considered in other plans. AANDC recommends that measures be taken to ensure that the camp is not affected by any spill at Steensby Inlet and that communities in the area continue to be consulted regarding any sensitive cultural areas in Steensby Inlet and within the boundaries of the Mary River Project.

Site Surface Water and Aquatic Ecosystem

- Sections 5.1.2, 5.2.2, and 5.3.2: The main sites are not expected to have significant areas of disturbed soils, but sites will be regularly monitored and if required, mitigation measures will be selected and installed. AANDC recommends that the plan include a threshold to indicate when mitigation measures will be considered.

Freshwater Supply, Sewage and Wastewater Management Plan

- Water supply and effluent discharge monitoring program locations along with associated monitoring details (e.g., frequency of data collection, water consumption, and effluent discharge criteria) should be provided pending the issuance of a water licence.



Waste Management Plan

- AANDC recommends that any incineration of waste be carried out in accordance with Environment Canada's Technical Document for Batch Waste Incineration.

Landfarm Operations, Maintenance, and Monitoring Plan (included in Waste Management Plan)

- The submitted Landfarm Operations, Maintenance, and Monitoring Plan is specific to the proposed Milne Inlet landfarm which is within the scope of the submitted water licence application. Pending the NWB's approval of this application, this plan should be finalized to include applicable water licence terms and conditions.
- Section 7.1: It is indicated that soils will only be tested for metals prior to acceptance and not at end of reclamation. AANDC recommends that the soils be tested prior to acceptance and at the end of treatment as a precautionary measure.
- The use of reclaimed water for landfarm treatment operations is suggested in Section 5.2. Should water be recycled from treated wastewater or sludge, AANDC recommends that the recycled water demonstrate that it meets all criteria (including additional discharge parameters) set by the NWB.
- The submitted plan does not specify where treated soils will be placed. This information should be provided in a revised plan.

Borrow Pit and Quarry Management Plan

- AANDC recommends that all borrow pits and quarries be licensed by the NWB. Clarification is required as to whether the Mary River Quarry will be licensed under the existing water licence or the new licence. Should the quarry be included in the new water licence, AANDC recommends that terms and conditions regarding water management be applied accordingly.

Explosives Management Plan

- AANDC recommends that a Site Specific Spill Response Plan and Training document should be developed to include Ammonium Nitrate (AN) and any other products and/or by-products associated with the use and/or manufacturing of explosives for each of the sites involved.
- Section 1.4: Baffinland states that a detailed Emergency Response Plan (ERP) will be prepared during development of the project. AANDC recommends that before any use, other than storage, of the explosive material the proponent should confirm and supply to the NWB the approved site specific ERP for the handling, use, disposal, etc. of any explosive materials on site.

Addendum to 2011 Abandonment and Reclamation Plan in Support of the 2012 Work Plan

The total reclamation cost estimate submitted by Baffinland was \$9,924,629.00. Upon review of the above-referenced addendum, AANDC recommends the following:



- The Abandonment and Reclamation (A&R) Plan should exist as a stand alone document, specific to the proposed Type 'B' water licence, and be developed in accordance with AANDC's 2002 *Mine Site Reclamation Policy for Nunavut* and 2007 *Mine Site Reclamation Guidelines for the Northwest Territories*. Should the Project Certificate not be granted, AANDC would require the implementation of closure activities to mitigate potential environmental liabilities.
- The stand-alone A&R Plan should include detailed monitoring provisions for progressive reclamation, temporary suspension, and final closure scenarios. Costs associated with these monitoring provisions should be explained within the reclamation cost estimate.
- The model used to calculate the reclamation cost estimate should be identified. The model should be an established, recognized model such as RECLAIM or some other appropriate model.
- The A&R Plan and reclamation cost estimate details should be completed and stamped by a professional engineer licensed in Nunavut with expertise in earthworks and reclamation.
- Rationale should be provided with the A&R Plan and the reclamation cost estimate.
- It is recommended that Baffinland submit an updated reclamation cost estimate and A&R Plan every three years along with any additional security that may be required in accordance with the updated plan.

Drawings and Supplementary Information

The following drawings are not considered to be within the scope of the new water licence application:

- Mine Site Fuel System Rail Offload Tank Farm
- Mine Site Rail Offload Tank Farm Dyke Sections
- Mine Site Rail Offload Tank Farm Tank Pad Details
- Mine Site Rail Offload Tank Farm Typical Dyke Sections

All design drawings and maps submitted with the application are stamped by an engineer and appear to be complete with the exception of a preliminary drawing of the Milne Inlet Hydrocarbon Impacted Soils Storage and Landfarm Facility (Drawing E337697-000-07-126-0001). AANDC recommends that this design drawing be stamped by a professional engineer and submitted to the NWB prior to construction of the landfarm in Milne Inlet.

Rationale for Proposed Facilities

The rationale for the facilities proposed in BIMC's 2012 Work Plan is appropriate to the scope of their Type B water licence application.



Aboriginal Affairs and
Northern Development Canada

Affaires autochtones et
Développement du Nord Canada

AANDC appreciates the opportunity to provide comments and we look forward to continuing our participation throughout the review of the Mary River project. If you have any questions or concerns, please do not hesitate to contact Margaux Brisco at (867) 975-4549 or margaux.brisco@aandc-aadnc.gc.ca.

Sincerely,

Robin Aitken
Regional Director General