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By Manager of Licensing at 9:21 am, May 02, 2011

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Our reference
IQALUIT-#460989

Sent by email: licensing@nunavutwaterboard.org

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
Gjoa Haven, Nunavut
X0E 1J0

Your reference
2BE-FBP----

Re: Type 'B' Water Licence No. 2BE-FBP---- – Fraser Bay Project – Roche Bay PLC – Qikiqtani Region – New Application

Dear Phyllis,

Thank you for your March 30, 2011 request for written representations on the above referenced water licence application.

A Technical Review Memorandum is provided for the Board's consideration.

Please do not hesitate to contact me by telephone at 867 975-4555 or email at David.Abernethy@inac-ainc.gc.ca to discuss this submission.

Regards,

David W. Abernethy
Water Resources Regional Coordinator
Operations Directorate
Nunavut Regional Office
Iqaluit, Nunavut
X0A 0H0

Encl.

c.c.: J. Rogers, Water Resources Manager
P. Kusugak, Field Operations Manager

Technical Review Memo

TO	Phyllis Beaulieu Manager of Licensing Nunavut Water Board	OUR REFERENCE File #9545-2-3.2BE.FBPA IQALUIT-#460989
FROM	David Abernethy Water Resources Regional Coordinator Indian and Northern Affairs Canada	YOUR REFERENCE 2BE-FBP---- DATE May 2, 2011
SUBJECT	Type 'B' Water Licence No. 2BE-FBP---- – Fraser Bay Project – Roche Bay PLC – Qikiqtani Region – New Application	

A. PROJECT DESCRIPTION

On March 30, 2011 the Nunavut Water Board (the Board) distributed Roche Bay PLC's application for a Type B water licence to allow for the use of water and disposal of waste associated with their Fraser Bay Project. Roche Bay PLC has requested a licence with a five (5) year term.

The Fraser Bay Project is situated on the western side of the Melville Peninsula. This is one of two iron ore exploration projects being developed by Roche Bay PLC on the Melville Peninsula. Their Roche Bay Project is situated on the peninsula's eastern side. Roche Bay PLC is requesting the use of 130 m³ of water per day for domestic and drilling purposes. A 10- 20 person seasonal camp will draw up to 25 m³ of water from an adjacent lake and three diamond drills will consume up to 105 m³ of water (35 m³ each) from surrounding sources. A total of eight drill holes and 2,500 m of drilling are planned for the project's 2011 field season.

Project equipment and supplies staged at the CAM-5 Mackar Inlet Distant Early Warning (DEW) Line airstrip will be delivered to site by helicopter. All fuels (i.e., diesel, jet, and gasoline) will be stored in 205 L drums at the project's main cache and at temporary remote caches. According to the submitted Environmental Management Plan, waste materials with the exception of untreated wood and large pieces of card board will be delivered to approved waste disposal facilities. The untreated wood and large pieces of cardboard will be burned in an open and controlled burn. Waste water, both domestic and drilling, will be directed to sumps.

Included in their water license application are a Spill Prevention and Response Plan and an Abandonment and Restoration Plan.

RESULTS OF REVIEW

On behalf of the Indian and Northern Affairs Canada (INAC) Water Resources Division I am providing the following comments/ recommendations for the Board's consideration,

1. General

- Standard water licence terms and conditions applicable to the proposed project activities should be included in a Type B Water Licence.
- Prior to the upcoming field season, Roche Bay PLC should revise their project management plans to address the findings of this water license application review.

2. Fuel Management

- The submitted Spill Response Plan should be revised to include the maximum quantities of fuel and other hazardous materials that will be in their project area at any given time.
- The INAC Water Resources Division recommends that as a precautionary measure secondary containment be provided at all locations where fuel, chemical, and other hazardous materials (e.g., lubricants and waste oil) are stored. Secondary containment should be provided if storage exceeds 4,000 L. The INAC Water Resources Division notes that Appendix IV of the submitted Spill Response and Prevention Plan, "Daily Fuel Inspection Record," references the use of "insta-berms" at the Main Generator Shed, Water Pump, Refueling Station, and Sleep Tents.
- The submitted Spill Response and Prevention Plan should be revised to include the correct INAC Water Resource Officer's contact information (i.e., Tel. 867 975-4295, Fax. 867 979-6445). The INAC Water Resource Officer should be notified of any hazardous material spills.
- Section 3.2 of the submitted Spill Response and Prevention Plan states that CSA approved methods will be used for the storage of drummed products. Roche Bay PLC should describe these methods.

3. Solid Waste Management

- Both the submitted Environmental Management Plan and the Abandonment and Restoration Plan reference controlled open burning of large pieces of cardboard and untreated wood. The INAC Water Resources Division does not encourage the burning of combustible waste materials as a form of disposal. Rather, the disposal of such waste materials in approved facilities is preferred. In the event that the open burning of combustible waste materials acceptable to the Board is carried out, the following recommendations are provided,
 - Only waste materials considered to be acceptable for burning by the Board can be burned;
 - Waste materials considered to be acceptable for burning should be appropriately sized (i.e., cut if necessary) to promote complete burning;
 - The burn shall remain in a 'hot phase' or 'hot burn' until complete combustion of the waste materials has occurred. Air assistance to the fire should be considered to improve complete burning of combustible waste materials; and,
 - Remaining non-combustible debris (e.g., nails) should be removed from the burn area and disposed in an approved facility.
- The submitted Environmental Management Plan states that combustible waste materials, scrap metal, and non-combustible waste materials will be brought to off-site disposal facilities. Roche Bay PLC should inform the Board if any waste materials will be brought to nearby Hamlets. Letters issued by Hamlets confirming that they will receive waste materials, indicating the types of waste, should be provided.

4. Abandonment and Reclamation

- The submitted Abandonment and Restoration Plan states that seasonal shutdown procedures will include the burning of combustible waste materials in burn barrels. The INAC Water Resources Division recommends that any burning of waste materials be carried out in accordance with Environment Canada's, "Technical Document for Batch Waste Incineration." This document provides information on appropriate incineration technologies, best management and operational practices, monitoring, and reporting.
- The contact information for Peter Kusugak, Manager of INAC Field Operations, referenced in the submitted January 2011 Abandonment

and Reclamation Plan should be revised. Peter can be reached by telephone at 867 975-4295 and fax at 867 975-6445.

Prepared by David Abernethy

c.c.: J. Rogers, Water Resources Manager
P. Kusugak, Field Operations Manager