



Our reference
File #9545-2-3BC.BARA
CIDMS #406008

June 4, 2010

Your reference
3BC-BAR

Richard Dwyer
Licensing Administrator
Nunavut Water Board
Gjoa Haven, Nunavut
X0E 1J0

Sent Via Email

Dear Richard,

**Subject Water License #3BC-BAR----, University of Sherbrooke, Barnes
Ice Cap Project, Qikiqtani Region, New License Application**

Please be advised that on behalf of Indian and Northern Affairs Canada, I have completed a review of the above referenced University of Sherbrooke submission to the Nunavut Water Board.

A Technical Review Memorandum (attached) is provided to the Board for consideration.

Should you have any questions regarding this submission, feel free to contact me at 867 975-4555 or david.abernethy@inac-ainc.gc.ca.

Regards,

David W. Abernethy
Water Resources Regional Coordinator
Operations Directorate, Nunavut Regional Office
Indian and Northern Affairs Canada
Iqaluit, Nunavut
X0A 0H0

Attached.

Cc: Lou-Ann Cornacchio, INAC Water Resources Manager
Peter Kusugak, Manager of Field Operations
Melissa Joy, Water Resource Officer

TECHNICAL REVIEW MEMORANDUM

Date: June 4, 2010

To: Richard Dwyer, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada

Re: **Water License #3BC-BAR----, University of Sherbrooke, Barnes Ice Cap Project, Qikiqtani Region, New License Application**

A. PROJECT DESCRIPTION

On May 4/10 the Nunavut Water Board (NWB or Board) distributed a notice of the University of Sherbrooke's Jan. 29/10 application for a Type 'B' water license for water use and waste disposal associated with research camp activities. The application form and associated documents are available for review on the NWB's online public registry. Interested parties have been invited to make representations to the NWB by June 4/10.

The University of Sherbrooke is applying for a license to support their analysis of environmental conditions on the Barnes Ice Cap in March 2011. Their research findings will be used to support the analysis of climatic variables using satellite remote sensing. A temporary camp will be established to support six (6) people who will conduct field research for approximately fourteen (14) days. Less than one (1) cubic metre of ice water will be utilized for domestic purposes each day.

B. RESULTS OF REVIEW

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

1. General

- Standard conditions for camp operations should be applied.
- The proposed duration of the project should be confirmed. The submitted application form requests a five (5) year license beginning in 2011 whereas the submitted supplementary questionnaire indicates that the project will be one year or less.

2. Waste Management

- Areas designated for domestic wastewater should be located at a minimum distance of thirty (30) metres from the ordinary high water mark of any water body such that the quality, quantity, or flow of water is not impaired.
- There should be no open burning or on-site land-filling of domestic waste unless otherwise approved by the Board.
- All solid waste materials should be removed from the project area and brought to an appropriate facility for disposal. Documented authorization should be provided to the Board from the receiving community, prior to backhauling any non-hazardous waste for disposal at the community.

3. Fuel Management

- Secondary containment must be used at all locations where barreled fuel, chemicals, and other hazardous materials are stored.
- The project's Spill Contingency Plan should be revised to include the following information,
 - A copy of the Government of Nunavut's Spill Report Form;
 - A list of the spill kit contents;
 - The contact information for INAC's Manager of Field Operations (Tel. 867 975-4295, Fax. 867 975-979-6445); and,
 - A site map that illustrates the relationship between all fuel storage facilities to other areas that may be affected by a spill. This map should be set to an appropriate scale and be large enough to include the locations of all fuel storage facilities, catch basins, drainage patterns, and any nearby bodies of water that can be impacted by a spill or topographic features which would affect access and response.
- It is recommended that the University of Sherbrooke review INAC's April 2007 *Guidelines for Spill Contingency Planning*.¹
- Any unauthorized discharge of waste or if such a discharge is foreseeable should be notified by telephone to the NWT/NU 24-Hour Spill Report Line at 867 920-8130 and INAC's Manager of Field Operations at 867 975-4295.
- For each spill occurrence, a detailed report should be submitted to INAC Field Operations no later than thirty (30) days after initially reporting the event. This report should include the amount and type of spilled product, geographic coordinates, and the measures taken to contain and clean-up the spill site.

¹ <http://www.ainc-inac.gc.ca/ai/scr/nt/pdf/SCP-EUD-eng.pdf>

3. Abandonment and Restoration

- Standard conditions for abandonment and restoration or temporary closing of research camps should be applied.

Prepared by David Abernethy

Cc: Lou-Ann Cornacchio, INAC Water Resources Manager
Peter Kusugak, Manager of Field Operations
Melissa Joy, Water Resource Officer