Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

Our reference
File #9545-2-3BE.NADA
CIDMS #394216

April 8, 2010

Your reference
2BE-NAD

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

Sent Via Email

Dear Phyllis,

Subject **Water License #2BE-NAD0813, Commander Resources Ltd., Nadluardjuk Lake Project, Qikiqtani Region, Amendment Application**

Please be advised that on behalf of Indian and Northern Affairs Canada, I have completed a review of the above referenced Commander Resources Ltd. 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

Canada

TECHNICAL REVIEW MEMORANDUM

Date: Apr. 8/10

To: Phyllis Beaulieu, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada

Re: Water License #2BE-NAD0813, Commander Resources Ltd., Nadluardjuk Lake Project, Qikiqtani Region, Amendment Application

A. PROJECT DESCRIPTION

On Mar. 12/10 the Nunavut Water Board (NWB or Board) distributed Commander Resources Ltd.'s (Commander Resources) Jan. 8/10 application to amend their Baffin Island Gold Project's Type B license for increased water use. This project is referred to as the Nadluardjuk Lake Project for water licensing purposes. The NWB requested representations from interested parties by Apr. 12/10.

Commander Resources are requesting the daily use of 100 m^3 or more of water to support their project's domestic and diamond drilling requirements. Their project comprises of regional to detailed ground geophysical surveys (magnetic, IP, and electromagnetic), prospecting, geological mapping, detailed rock sampling, channel sampling, soil sampling, till sampling, and lake sediment sampling. Diamond drilling will be performed on both land and lake ice.

Project activities will be based out of two separate camps, the Dewar Lakes Camp and the Malrok Lake Camp. The Dewar Lakes Camp can accommodate 35 people and is situated adjacent to the North Warning System Fox-3 airstrip. It was constructed in 2003 and will be upgraded this year. This camp's fuel cache will include two 57,000 L diesel fuel bladders equipped with secondary containment structures. The Malrok Lake Camp will be constructed 97 kilometers west of the Dewar Lakes Camp. An exploration camp was constructed at this site in 2004 and subsequently reclaimed in 2005. This camp will accommodate 30 people and be accessible by fixed wing aircraft (on a winter ice airstrip) and helicopter.

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. Water Use

- Commander Resources should specify the daily limit of water use that they want have included in an amended license. The volumes that will be used for domestic and drilling purposes should be provided.

2. Fuel and Hazardous Waste Management

- Commander Resources should revise their Spill Contingency Plan to include the following,
  - topographic site location map(s)
  - sketches/maps of the project area that reference all fuel caches, spill kit locations, hazardous material storage areas, buildings, water bodies, and direction of flow in the event of a fuel or hazardous material spill; and,
  - The Government of Nunavut's Spill report form.

- Fuel transfer must be conducted in areas equipped with secondary containment. Drip pans are only appropriate secondary containment for small-scale fuel transfer.

- Drums with excessively worn seals must not be used for fuel storage and should be removed from the project area annually.

- Additional provisions for secondary containment should be applied to fuel caches using re-filled drums given the inherent weakness of re-sealed bungs.

- The following procedures should be applied with respect to the use of fuel bladders,
  - All fuel bladders must be used in strict adherence with manufacturers' specifications, instructions, and requirements;
  - All fuel bladders must be stored within appropriate secondary containment (see secondary containment below);
  - All fuel bladders must be stored on even ground, and where possible, in a natural depression;

  - All fuel bladders must be cleared of snow or other debris with sufficient frequency to avoid snow-loading or the accumulation of excess weight on the bladders;
  - Protective obstacles must be placed around fuel bladders to protect them from possible impacts from vehicles or equipment; and,
  - All fuel bladders must be labeled visibly (so that they can be read at a distance) with the owner's name, the date of delivery to the site, and the product they contain.

- Secondary containment provisions for fuel storage and transfer areas should include the following details,
  - Secondary containment structures must be composed of, or lined with, materials impervious to petroleum products;
  - Secondary containment structures must be capable of holding 110 percent of the volume of the largest fuel reservoir or 110 percent of the combined volume of all interconnected reservoirs placed within the containment structure;
  - Secondary containment structures must be of sufficient height/depth to not be breached by the wave arising from a major fuel container failure;
  - Secondary containment structures must be sufficiently durable to withstand the rigors of Nunavut's harsh climate and the demands of hard industrial use on rocky and broken land in Nunavut;
  - Dyked secondary containment structures must comply with all applicable federal and territorial laws, regulations, and guidelines. This includes the use of geomembranes which should not be seamed in the field if possible;
  - Woven polyethylene tarpaulins will not be accepted as part of a secondary containment system;
  - For large secondary containment structures, oil/water separators should be available for use;
  - Secondary containment must be cleared of snow and/or water regularly using equipment and methods recommended by the manufacturer;
  - Secondary containment should be inspected daily for punctures or potential failure and should be tested for leaks regularly; and,
  - All secondary containment structures must be installed and used in strict accordance with the manufacturer's specifications and directions.

3. Waste Management

- Any incineration of solid waste should be conducted in accordance with Environment Canada's March 2009 "Technical Document for Batch Waste Incineration."

Prepared by David Abernethy

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