



Date: Feb. 13/09

To: Phyllis Beaulieu, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada, Nunavut  
Regional Office, Water Resources Division

## EXECUTIVE SUMMARY

**Re: Water License #1AR-NAN0208, CanZinco Ltd., Nanisivik Mine,  
Water License Renewal and Amendment Application, Feb.  
23/09 Public Hearing**

Please be advised that Indian and Northern Affairs Canada (INAC) has reviewed the above referenced Type A Water ~~License~~ ~~Licence~~ Renewal and Amendment Application submitted by CanZinco Ltd. to the Nunavut Water Board (NWB or Board) for approval.

A Technical Intervention Memorandum (attached) is provided to the Board for consideration in preparation for the February 23, 2009 Public Hearing that will be held in the Hamlet of Arctic Bay.

The NWB held a Pre-hearing Conference (PHC) for this License Renewal and Amendment Application on Nov. 28/08 by teleconference. INAC participated in this event along with Environment Canada, the Government of Nunavut's Department of Environment, the Hamlet of Arctic Bay's Senior Administrative Officer, the Hamlet's Community Liaison Officer, and CanZinco Ltd.

The NWB distributed a PHC Decision Report and Final Hearing Notice on Dec. 15/08, requesting written intervention statements by Feb. 13/09. During the PHC CanZinco Ltd. agreed to provide additional information to the Board by Jan. 30/09. The NWB received this information on this date and made it available to interested parties for review on Feb. 3/09.

INAC has completed a review of the approved *Nanisivik Mine 2004 Reclamation Plan and Closure Plan* (approved by the Board on July 6/04) and the additional documentation that was submitted on Jan. 30/09.

As a result, INAC has provided comments with respect to the following:

***Term of License***

INAC recommends that the Nanisivik Mine's Type A Water License be renewed for five (5) years (i.e., 2009-2013).

***Annual Reporting***

The results of all water quality monitoring and geotechnical monitoring activities should be included in Annual Reports. A discussion of observed trends and any required mitigation measures should be included in these submissions.

***Type and Amount of Security***

INAC recommends that CanZinco Ltd.'s water license security be reduced from \$17.6 million to \$2 million. This amount should adequately address the remaining financial obligations associated with monitoring and reclamation activities.

***Waste Management***

Any further waste generated at the site should be disposed of in accordance with the approved (July 06/04 – NWB) *Nanisivik Mine 2004 Reclamation Plan and Closure Plan*. Alternative disposal practices must be pre-authorized by the Board.

***Contingency Planning***

A **Contingency Plan** ~~contingency plan~~ should be provided prior to the renewal of this license that identifies triggers and proposed contingency actions for further reclamation / mitigation (e.g., water quality criteria exceeding criteria, deficiencies in tailings covers, mining pit and portal covers, dikes, etc.).

***Mitigation, Treatment, and Management of Contaminated Soils***

Appears to be complete.

***Monitoring - Water Quality and Geotechnical***

The proposed monitoring programs should be **undertaken by CanZinco Ltd.** ~~performed~~ throughout the five (5) year license renewal term. After the second year of monitoring CanZinco Ltd. should provide a comprehensive trend analysis to the Board for review and, if applicable, justifications for any changes to its proposed sample monitoring frequency, locations, or parameters.

The current water quality compliance discharge criteria for the West Twin Disposal Area, Monitoring Station (MS) #159-4, should continue to be applied. Furthermore, additional parameters should also be required at the Twin Lakes Creek and Chris Creek outlets to Strathcona Sound (MS #'s 159-6 and 159-17 respectively), as well as upstream at the Twin Lakes Creek and Chris Creek Watershed Control Stations (MS #'s NML-23 and 159-15 respectively).

**Closure and Reclamation**

CanZinco Ltd. should provide the NWB with a specific date within the next five (5) years as to when the mine's main Fuel Tank Farm will be reclaimed or transferred to Canada's Department of National Defence.

**Other Issues**

CanZinco Ltd. should inform the Board as to where the mine's former mill and concentrate storage structure were shipped to (i.e., the location has not been provided).

In conclusion, INAC notes that the reclamation of the Nanisivik Mine appears to have been conducted in accordance with the approved *Nanisivik Mine 2004 Reclamation Plan and Closure Plan* and in a satisfactory manner. Post ~~closure~~ / ~~closure~~ ~~Closure~~ / ~~Closure~~ monitoring is now required to assess the performance of the reclamation program and to ensure the surrounding aquatic environment is not adversely impacted.

Cc. Kevin Buck, Water Resources Division Manager  
Michael Nadler, Director of Operations - Acting