



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU  
X0A 0H0

NWB File: 1AR-NAN0914  
CIDMS #: 778700

March 3, 2014

Phyllis Beaulieu  
Manager of Licensing, NWB  
P.O. Box 119  
Gjoa Haven, NU  
X0B 1J0

**Re: 1AR-NAN0914 – Completeness and Information Requests Review for Water License Renewal/Amendment License Process - Nanisivik Mine Property – Canzinco Ltd. - Nyrstar Canada (Holdings) Ltd. (Nyrstar) - Nyrstar.**

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Dear Ms. Beaulieu,

Thank you for your email on January 30, 2014, concerning the above mentioned water licence renewal/amendment application.

A completeness and information requests memorandum is provided for the Nunavut Water Board's (Board or NWB) consideration. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4282 or email at [ian.parsons@aandc-aadnc.gc.ca](mailto:ian.parsons@aandc-aadnc.gc.ca) for further comments or any questions.

Sincerely,

*Original signed by*

Ian Parsons  
Regional Coordinator

Cc. Murray Ball, Manager of Water Resources – Aboriginal Affairs and Northern Development Canada (AANDC), Nunavut Regional Office  
Johan Skoglund, Group Environment Manager – Americas – Nyrstar Canada Ltd.



## **Completeness/Information Requests Review**

### **Memorandum**

<b>TO</b>	Phyllis Beaulieu Manager of Licensing Nunavut Water Board	AANDC reference CIDM# 778700
		NWB reference #1AR-NAN0914
<b>FROM</b>	Ian Parsons Regional Coordinator Aboriginal Affairs and Northern Development Canada	DATE March 3, 2014

**Re: 1AR-NAN0914 – Completeness Review and Information Requests for Water License Renewal/Amendment License Process - Nanisivik Mine Property – Canzinc Ltd. - Nyrstar Canada (Holdings) Ltd. (Nyrstar) - Nyrstar.**

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#### **A. Background**

The Nanisivik Mine Property is a past-producing zinc mine located in Canada's High Arctic approximated 30 km East of Arctic Bay, Nunavut. The mine operated for a period of 26 years from 1976 until 2002.

Since closure, Canzinc Ltd., a wholly owned subsidiary of Breakwater Resources Ltd. has implemented its closure and reclamation plan (approved 2004), including water quality and geotechnical monitoring for the Nanisivik Mine Site.

As of August 26, 2011, Breakwater Resources Ltd. was purchased by Nyrstar Canada (Holdings) Ltd., a wholly-owned subsidiary of Nyrstar NV., thus reclamation activities are still being carried out by Canzinc Ltd. however Canzinc Ltd. is now a wholly owned subsidiary of Nyrstar Canada (Holdings) Ltd.

The existing water license (1AR-NAN0914) is valid until March 31, 2014.

#### **B. Results of Review**

In 2010, 2011 and 2013 AANDC acquired expert technical engineering services to conduct site inspections of the Nansivik Mine Property. These services were acquired to determine if reclamation work carried out by Canzinc Ltd. and ultimately Breakwater Resources from 2004-2011 and Nyrstar from 2011 to the present was completed based on the approved 2004 closure plan as well as being effective in its purpose.



The proponent has filed the following documents with the NWB as part of its water license renewal/amendment application package:

- i) Application cover letter
- ii) Water Licence amendment-renewal application form
- iii) Appendix A: Executive summary of water licence amendment application (English)
- iv) Appendix B: Executive summary of water licence amendment application (Inuktitut)
- v) Appendix C: Canzinco shareholder resolution appointing directors
- vi) Appendix D: Site location map
- vii) Appendix E: Correspondence related to the Nunavut Planning Commission conformity determination
- viii) Appendix F: Correspondence related to the Nunavut Impact Review Board Screening requirements
- ix) Appendix G: Geotechnical monitoring schedule 2014-2018
- x) Appendix H: Water quality monitoring schedule 2014-2018
- xi) Appendix I: Contaminated soil remediation progress
- xii) Appendix J: Petroleum hydrocarbon contaminated soils risk-based remedial options analysis
- xiii) Appendix K: Concordance table related to supplementary information requirements for hydrocarbon-impacted soil storage and landfarm treatment facilities
- xiv) Appendix L: Site layout map
- xv) Appendix M: Letter of credit
- xvi) Appendix N: Canzinco appointment of officer
- xvii) Appendix O: Canzinco certificate of amendment
- xviii) Appendix P: Compliance assessment and status report

AANDC in its review of the renewal/amendment water license application has the following completeness/information requests:

### **Completeness/Information Requests**

1. AANDC notes blocks 7 and 8 of the application form pertaining to approvals from both the Nunavut Planning Commission (NPC) and Nunavut Impact Review Board (NIRB) respectively have yet be approved. However the proponent indicates that this process is in progress.

AANDC requests that the proponent submit to the NWB the aforementioned approvals when received from both NPC and NIRB. Otherwise the application is incomplete.



2. AANDC notes that while reviewing section/question 15 of the renewal/amendment application the proponent has indicated that they will dispose both sewage and solid waste into the Hamlet of Arctic Bay's landfill facility. AANDC would like to advise the proponent that the Hamlet of Arctic Bay does not currently hold a valid water license. In saying this, AANDC is of the understanding from the Nunavut Water Board that the disposal of wastes and/or use of the Hamlet of Arctic Bay's facilities by third parties is **not** allowed until such time as the Hamlet renews their current water license (expired in 2010 – water license number 3BM-ARC0810).

AANDC requests that the proponent submit to the NWB updated solid and sewage waste management plans including how they intend to treat or dispose of sewage and solid waste generated on site.

3. AANDC notes that no updated spill contingency plan was submitted with the renewal/amendment application. AANDC is aware of the latest updated spill contingency plan submitted to the board is dated May 2012.

AANDC requests submitting an updated spill contingency plan with the renewal/amendment application as the proponent has identified several additional options for the remediation of the contaminated soils on site. The spill contingency plan should include contingency plans for all remediation alternatives outlined, in the event that the proponent's preferred option is not approved.

4. AANDC notes that the proponent has outlined and ranked five (5) remedial options: two (2) of these are essentially risk-based approaches with no remediation plan, two (2) others are remediation options for the contaminated soil remaining on site and one (1) is a plan to remove the contaminated soil from site altogether. The proponent's preferred option is a risk-based approach that will in effect spread the contaminated soil out over an ecologically non sensitive area and cap it with 0.5m of clean soil, should the risk be acceptable as demonstrated under CCME guidelines.

AANDC requests that the proponent submit more information that clearly demonstrates how this risk-based remedial approach will be effective in limiting and/or eliminating risks to water and in turn to humans, wildlife and the environment.

AANDC also requests that the proponent demonstrate how each of the other options is viable. All options outlined in the application need to be sufficiently developed to assess the potential impacts to water.



5. AANDC also requests that the proponent provide additional details such as; how they intend to confirm that all contaminated soils have been excavated and how they will confirm that the contaminated soils being remediated have been appropriately treated.
6. AANDC requests that the proponent provide details on how they will ensure that there is no contaminate transfer by air or water vectors while remediating soils or while the soils remain stockpiled.
7. AANDC requests that the proponent provide details as to the source location and amount of soil that will be used as cover for the contaminated soil. AANDC would like to advise the proponent that depending on the source of the quarry/borrow area for the soil that further permits may be required.
8. AANDC requests the proponent provide further details on the backfilling of Area 4. If backfilling is to occur, what material would be used; where will this material come from; when would the backfilling occur? Does the other on-site proponent want this area back-filled if they are going to use this area? How will backfilling be coordinated with other proposed land uses at the site?

AANDC requests that the proponent submit an updated Abandonment and Reclamation plan including all requests made above in 4 through 8 for the effective remediation of the contaminated soil on site.

9. AANDC notes that there has been no updated security assessment review submitted with the application.

AANDC requests that the proponent submit an updated security review as part of their renewal application for the whole former Nanisivik Mine Site, including but not limited to, the continued reclamation of the contaminated soil and all of its associated contingencies, any continued upgrades and maintenance to reclamation activities already undertaken and completed, all post closure activities as well as any new facilities being undertaken (i.e new landfill).

10. AANDC requests that the proponent provide additional details about its proposed landfill before a water license is issued, including location, size where would the cover material come from, borrow/quarry areas, etc.

AANDC does not have any specific Information requests at this time in regards to the proponents Geotechnical or Water Quality monitoring plans, however we will be



providing technical comments on both plans during the technical review stage of the water licensing process.

AANDC requests that the Technical Meeting/Pre-Hearing Conference (TM/PHC) as well as the Public Hearing be held in-person given the potential land-use conflicts that may arise.