



Water Resources Division  
Resource Management Directorate  
Nunavut Regional Office  
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Your file - Votre référence  
1AR-NAN2030  
Our file - Notre référence  
CIDM#1285632

May 29, 2020

Mr. Richard Dwyer  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0B 1J0  
E-mail: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on the 2019 Annual Report for Nyrstar Water Licence 1AR-NAN2030**

Dear Mr. Dwyer,

Thank you for your March 31, 2020 email invitation to review and comment on 2019 annual report for water licence 1AR-NAN2030

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the 1AR-NAN2030 2019 annual report and the associated documents, pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*, and would like to provide the following comments to the Nunavut Water Board for consideration.

**1. Exceedance of Water Quality "Action Level" at Station NML-29:**

Table 2.5 of the 2019 Water Quality Monitoring Report (Appendix B) shows that the non-regulatory Action Level was exceeded for both total zinc and sulphate concentrations at Station NML-29 on two consecutive occasions, which would require an investigation to determine the cause of the exceedance. The report recommended that *"during the monitoring event in August 2020, a hand-held conductivity meter should be used to explore water quality in flowing or standing water in the vicinity of NML-29, in an effort to determine whether water quality exceedances observed at NML-29 in 2019 may have originated from the Landfill, or from other nearby natural or man-made source(s)."*

It is not clear how conductivity measurements will be applied to determine the cause(s) or source(s) of the observed exceedance.



CIRNAC recommends that the proponent clarifies how this method works and presents their result in its next annual report for review.

## **2. Seepages and Formation of Head Pond or Surface Water Pooling on Tailings Cover:**

The 2019 Geotechnical Inspection Report (Appendix D) identified issues that warrant further monitoring; the seepages at the West Twin Outlet Wall and at the toe of the left bank of the East Twin Creek Diversion Dyke, as well as the formation of head pond at the entrance to the spillway at the south end of the surface cell tailings cover. These issues are not included in the 2020 Update to Post Closure Geotechnical Monitoring Contingency Plan (Appendix H).

CIRNAC recommends that the seepage and head pond issues be monitored and reported by the proponent in future annual reports.

## **3. Acid Rock Drainage Staining at Oceanview East Raise:**

The 2019 Geotechnical Inspection Report (Appendix D) noted the acid rock drainage (ARD) staining of the ground surface at Oceanview East Raise. The source of the ARD is unknown.

CIRNAC recommends that the extent of the ARD staining be monitored and reported by the proponent in future annual reports.

CIRNAC appreciates the opportunity to participate in this review. If there is any question, please contact me at (867) 975-4555 or [david.zhong@canada.ca](mailto:david.zhong@canada.ca) or Mr. Godwin Okonkwo, Manager of Water Resources, at (867) 975-4550 or [godwin.okonkwo@canada.ca](mailto:godwin.okonkwo@canada.ca).

Sincerely,

David Zhong  
Regulatory and Science Advisor