Water Resources Division Resource Management Directorate Nunavut Regional Office P.O. Box 100 Igaluit, NU, X0A 0H0

March 5, 2020

Your file - Votre référence 3BM-CAM1520

Our file - Notre référence CIDM#1283680

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
sent via email: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on the Government of Nunavut – Community and Government Service's water treatment plant operation & maintenance manual for water licence #3BM-CAM1520 – Hamlet of Cambridge Bay

Dear Mr. Dwyer,

Thank you for your February 4, 2020 invitation for technical review comments on the above referenced manual. The Water Resources Division of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the manual and the results of our review are provided in the enclosed memorandum for the Nunavut Water Board's consideration.

Comments have been provided pursuant to CIRNAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*. If there are any questions or concerns, please contact me at (867) 975-3876 or by e-mail at sarah.forte@canada.ca.

Sincerely,

Sarah Forté Water Management Specialist



Technical Review Memorandum

To: Richard Dwyer, Manager of Licensing, Nunavut Water Board

From: Sarah Forté, Water Management Specialist, Water Resources Division, CIRNAC

Date: March 5, 2020

Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on the

Government of Nunavut – Community and Government Service's water treatment plant operation & maintenance manual for water licence #3BM-

CAM1520 – Hamlet of Cambridge Bay

A. BACKGROUND

On February 4, 2020, the Nunavut Water Board provided notification of Government of Nunavut - Community and Government Services' submission of a water treatment plant Operation and Maintenance Manual for the Type B water licence 3BM-CAM1520 for the Hamlet of Cambridge Bay.

When the licence was being renewed in 2014-15, the water treatment facility was undergoing upgrades and an Operation and Maintenance Manual for the modified water supply facility was not available. The renewed licence included conditions to provide this manual as Part F Items 5 and 6.

B. RESULTS OF REVIEW

Crown-Indigenous and Relations Northern Affairs Canada (CIRNAC) Water Resources has read the Operation & Maintenance Manual, Water Treatment Plant, Cambridge Bay, NU (Stantec, April 2018) and found it to be more of a construction design report than an operation & maintenance manual. Some important elements are missing from the submitted manual.

On behalf of CIRNAC, the following comments and recommendations are provided for the Board's consideration.

1. Recording daily water use

Comment:

Part F Item 5 of the water licence requires:

The Licensee shall submit to the Board for approval, within ninety (90) days of the issuance of this Licence, a stand-alone Modified Water Supply Facility

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Operation and Maintenance (O&M) Manual that addresses all components of the system and includes a schedule for recording daily Water use volumes requirements in Part H, Items 1 and 2.

CIRNAC was unable to find any reference to a schedule for recording daily water use volumes.

Recommendation:

CIRNAC recommends that the proponent modify the Operation and Maintenance Manual to include instruction on where and how to record daily water use volumes, as required by the water licence.

2. As-built drawing

Comment:

Part F Item 6 of the water licence requires:

The Licensee, shall, within ninety (90) days of issuance of this Licence, provide separately or include as part of the Modified Water Supply Facility Operation and Maintenance Manual required Part F, Item 5, as-built drawings for the Water Supply Facility that are signed and stamped by an Engineer, as required by Part E, Item 3.

The as-built drawings from Stantec provided in Appendix A of the Operation and Maintenance Manual have not been signed and stamped by an Engineer. We note that BI Pure Water (Canada) Inc. drawings have been appropriately stamped.

CIRNAC also noticed that in drawings C-101 to C-106 and C-201 to C-208, many features are labelled as "proposed" which implies the work is not yet complete.

It is not clear why drawings S-502 to S-505 and S-507 are provided as they are crossed out.

Recommendation:

CIRNAC recommends that the proponent provide as-built drawings stamped and signed by an Engineer for the project components drawn by Stantec.

3. Organization of document

Comment:

It was difficult for us to find some of the relevant information in this manual; a challenge which may be shared by operators at the plant. Some materials, like the lists of components from pages 13 to 106, would be better suited as appendices.

The document has 8 appendices, and only Appendix A – Record Drawings, was available on the Nunavut Water Board ftp registry. Though we would not expect to find Appendix B – Video Operations Manual, since it is a video, appendices C to H seem to be missing.

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Recommendation:

CIRNAC recommends that the proponent provide appendices C to H.

4. Decommissioning of old plant

Comment:

Page 112 of the Manual states:

The previous water treatment building and treated water storage tank have been decommissioned, demolished and removed.

It is encouraging to see that the decommissioning work was done soon after the commissioning of the modified plant.

Recommendation:

CIRNAC commends the Hamlet of Cambridge Bay for the decommissioning effort and recommends this pro-active attitude be sustained for future projects.

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