

Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
3BM-CHE1523
Our file - Notre référence
GCdocs#92162726

March 19, 2021

Sylvia Ekelik
Licensing Administrative Assistant
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada Review of the Water Transmission Line and Pump System Operation and Maintenance Manual for the Hamlet of Chesterfield Inlet, Type B Water Licence No. 3BM-CHE1523

Dear Ms. Ekelik,

Thank you for the February 26, 2021 invitation to review the referenced Operation and Maintenance (O&M) Manual for Type B Water Licence No. 3BM-CHE1523, submitted by the Government of Nunavut (GN) Community and Government Services (GCS) on behalf of the Hamlet of Chesterfield Inlet.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the O&M Manual 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*. Comments are provided in the attached Technical Memorandum for the Nunavut Water Board's consideration.

If there are any questions or concerns, please contact me at (867) 975-4282 or bridget.campbell@canada.ca.

Sincerely,



Bridget Campbell,
Water Management Coordinator, Acting Manager

Canada 



Technical Review Memorandum

Date: March 19, 2021

To: Sylvia Ekelik – Licensing Administrative Assistant, Nunavut Water Board

From: Bridget Campbell – Water Management Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada Review of the Water Transmission Line and Pump System Operation and Maintenance Manual for the Hamlet of Chesterfield Inlet, Type B Water Licence No. 3BM-CHE1523

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

The Hamlet of Chesterfield Inlet is situated on the west coast of the Hudson Bay in the Kivalliq region of Nunavut, south of Chesterfield Inlet. The closest neighbouring community is Rankin Inlet, about 100km to the southwest.

The Government of Nunavut (GN) Community and Government Services (CGS) manages water licence 3BM-CHE1523 on behalf of the Hamlet of Chesterfield Inlet. The water licence covers municipal activities including water extraction for drinking, sewage treatment, and solid waste management. Drinking water for the Hamlet's over 400 residents is pumped from First (Puiqsuk) Lake to the reservoir via a 3.2km overland water transmission line and pumping system.

GN-CGS replaced the pipeline in 2020 and has provided for review an updated Operation and Maintenance (O&M) Manual to reflect the new Water Transmission Line and Pioneer Pumping System, referenced in Section B. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the O&M Manual and provides comments and recommendations in Section C for the Nunavut Water Board's (NWB) consideration.

B. DOCUMENTS REVIEWED

Tetra Tech. *Operations and Maintenance Manual Chesterfield Inlet Water Transmission Line and Pioneer PP64C14L71 Pump*. Revision 01. February 5, 2021.



C. RESULTS OF REVIEW

1. Section 5.0 – Maintenance Not Found in Document

Section 2.0 of the Operation and Maintenance (O&M) Manual outlines the subsequent sections and appendices of the manual, and summarizes what information can be found in each section. Section 5.0 - Maintenance is referenced here. There is no Section 5.0 in the document. Maintenance is a crucial practice in the operation of pumps and pipelines, and can prevent breakdowns and leaks. It would be best practice to include this information in the O&M Manual.

Recommendation:

(R-01) CIRNAC recommends that GN-CGS include the recommendations for upkeep of the pumping system, including the pump, the pumping pad, and the pipeline, in the O&M Manual, or as an addendum to the plan, prior to plan approval.

2. Placement of Intake Hose into Water Source using a Motorized Boat

Section 3.2.2 of the O&M Manual recommends using a motorized boat to place the intake end of the suction hose offshore in First Lake. Given that the lake is a drinking water source, it would be prudent to carry a spill kit on the boat, and to include this as a requirement in the O&M Manual.

Recommendation:

(R-02) CIRNAC recommends that the operator carry a spill kit on any motorized boats that are used in a drinking water source, and that GN-CGS include the requirement for carrying a spill kit on motorized boats in the O&M Manual.