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June 20, 2023

File: MV2023L2-0001  
MV2023D0010

Todd Martin  
Court-Appointed Monitor  
North American Tungsten Corporation Ltd.  
902-925 West Georgia St.  
Vancouver BC V6C 3L2

Sent by e-mail

**Re: North American Tungsten Corporation Ltd. – Water Licence and Land Use Permit – Applications – Information Requests**

On March 14, 2023 Mackenzie Valley Land and Water Board (Board) staff received the Application Packages (Applications) for a Water Licence (Licence) MV2023L2-0001<sup>1</sup> and Land Use Permit (Permit) MV2023D0010<sup>2</sup> for care and maintenance activities at the Cantung Mine site from North American Tungsten Corporation Ltd. (NATCL). The Applications were sent for public review on the Board's Online Review System on March 24, 2023.<sup>3</sup> Comments and recommendations on the Applications were received on May 19, 2023, with responses from NATCL received on June 6, 2023.

Based on the review comments and responses, Board staff have determined that additional evidence from NATCL is required to assist in determining whether the passive discharge of minewater constitutes a deposition of a waste, and if so, if effluent quality criteria (EQC) conditions in the draft Licence are required. Additional information from NATCL is also required to draft a Licence condition related to future Dam Safety Reviews (DSRs) of the Tailings Containment Areas (TCAs). The additional information is needed prior to a technical session being held for the Applications.

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<sup>1</sup> See the MVLWB Online Registry ([www.mvlwb.com](http://www.mvlwb.com)) for [MV2023L2-0001](#).

<sup>2</sup> See the MVLWB Online Registry for [MV2023D0010](#).

<sup>3</sup> See MVLWB Online Review System for [Cantung Care and Maintenance – Type B Renewal Licence and Type A Permit Applications – March 24, 2023](#).

These additional requirements are set out in the numbered Information Requests (IRs) below, and in accordance with the Land and Water Board (LWB) [Rules of Procedure](#),<sup>4</sup> Board staff requests that NATCL submit the information by July 17, 2023. If NATCL needs more time to complete the response, please let Board staff know.

### **Parameters of Potential Concern, Effluent Quality Criteria, and Discharge Quality Criteria**

NATCL's Applications have put forth the argument or position that discharge of the minewater to the Flat River does not meet the definition of the "deposit of waste" under the *Mackenzie Valley Resource Management Act*.<sup>5</sup> One of the fundamental questions that the Board will need to address in its deliberations and its decision for this proceeding is whether this minewater discharge to the Flat River is a deposit of waste. As the Board's decision to this question is not known at this time, information must be gathered to support either of the two possible outcomes. Should the Board determine that the minewater is a waste, then the Board will need to determine whether effluent quality criteria (EQC) are needed and, if so, what they should be.

NATCL has developed discharge quality criteria (DQC) to apply to locations downstream of the Conveyor Gallery (proposed Surveillance Network Program (SNP) station S5-2) and Main Mine Portal (proposed SNP station S4-32). These DQCs were included in the water quality assessment of the minewater, but NATCL did not propose the DQCs be used for compliance in the Applications.<sup>6</sup> In addition, these DQC were derived for parameters that had water quality objectives (WQO) previously defined in Licence MV2015L2-0003<sup>7</sup>, Annex A and did not consider updated or newly developed guidelines.

Environment and Climate Change Canada (ECCC) recommended that the Licence include EQC for minewater flowing out of the Main Mine Portal and Conveyor Gallery.<sup>8</sup> Łídlıı Kúę First Nation (LKFN) and Liard Fist Nation (LFN) recommended that EQC, DQC, and WQO for tungsten should be developed.<sup>9</sup> NATCL did not propose EQC for minewater discharge in the Applications and indicated that a DQC is not required for tungsten.

### **Information Request #1(IR1)**

NATCL to screen the minewater discharges at SNP S5-2 and SNP S4-32 for Parameters of Potential Concern (POPC). At a minimum, the screening should include the following:

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<sup>4</sup> See the MVLWB Rules of Procedure page to access the LWB [Rules of Procedure](#). Rules 61 and 63.

<sup>5</sup> See MVLWB Online Review System for [Cantung Care and Maintenance – Type B Renewal Licence and Type A Permit Applications – March 24, 2023](#); MVLWB, comment 6.

<sup>6</sup> See MVLWB Online Registry for [Phase III Environmental Site Assessment – Cantung Mine, NWT](#), p. 102; [Conceptual Site Model, Cantung Mine, NT](#), pp. 67-70.

<sup>7</sup> See the MVLWB Online Registry for [MV2015L2-0003](#).

<sup>8</sup> See MVLWB Online Review System for [Cantung Care and Maintenance – Type B Renewal Licence and Type A Permit Applications – March 24, 2023](#); ECCC, comment 1.

<sup>9</sup> See MVLWB Online Review System for [Cantung Care and Maintenance – Type B Renewal Licence and Type A Permit Applications – March 24, 2023](#); LKFN, comments 17 and 19; LFN, comment 6.

1. Assess all parameters listed in Table 1 of the Board's [Standard Process for Setting Effluent Quality Criteria](#) as well as silver, thallium, and tungsten.
2. Compare discharge concentrations to acute toxicity guidelines, water quality objectives (i.e., either existing water quality objectives or any new guidelines for the protection of aquatic life), and background concentrations.
3. Provide rationale to support why the proposed discharge quality criteria (DQC) should not be applied as an effluent quality criteria (EQC) to any identified POPC.
4. Provide a tabular summary that includes the proposed DQC, a comparison of DQC to acute toxicity guidelines, and rationale to support any DQC that exceed acute toxicity guidelines.
5. Provide an updated comparison of the proposed DQC to the SNP data from SNP S5-2 and SNP S4-32 for 2017 to 2022. Results should be provided in a tabular summary that includes all parameters, the number of samples collected at each station (on a per year basis), and the number of DQC exceedances observed (on a per year basis).

### **Dam Class and Frequency of Dam Safety Review**

On May 15, 2023, NATCL submitted the 2022 Dam Safety Review (DSR) Report<sup>10</sup> and an Implementation Plan<sup>11</sup> from NATCL's Engineer of Record that included responses to the DSR Report recommendations as per Part G, Condition 26 of Licence MV2015L2-0003. On June 1, 2023, Board staff required additional information on the Implementation Plan.<sup>12</sup> On June 16, 2023, NATCL provided additional information in response to Board staff's request.<sup>13</sup> In response to Recommendation 2022DSR-01, NATCL noted the following:

Part of recommendation 2022DSR-01 hinges on a proposed change in dam consequence classification (DCC) from "Significant" to "High" based on draft changes to Canadian Dam Association (CDA) environmental consequence classification procedures for mining dams (per CDA 2022). A review of the DCC for the dams at Cantung is currently underway. Should the results of this review support the proposed change in DCC from "Significant" to "High", a review of TCA storage capacity would likely follow as the criteria and performance expectations of these existing structures would have changed.

As per the Board's [Standard Water Licence Conditions Template](#), Part F, Condition 13, DAM SAFETY REVIEW, the frequency of Dam Safety Reviews is based on dam consequence classification (dam class). In order to draft Part F, Condition 13, DAM SAFETY REVIEW, Board staff require the results of NATCL's review of the dam class.

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<sup>10</sup> See MVLWB Online Registry for [NATCL – 2022 Dam Safety Review – Report – May 15 23](#).

<sup>11</sup> See MVLWB Online Registry for [NATCL – Cover Letter and Response – May 15 23](#).

<sup>12</sup> See MVLWB Online Registry for [NATCL - 2022 Dam Safety Review - Implementation Plan - Additional Information Required - June 1 23](#)

<sup>13</sup> See MVLWB Online Registry for [NATCL - 2022 Dam Safety Review - Additional Information from NATCL - June 16 23](#)

Information Request #2(IR2)

NATCL to provide the review of the dam consequence classification. The dam class review should include and consider the following:

- The review of the dam class is to be conducted in accordance with guidelines and technical bulletins from the Canadian Dam Association (CDA);
- The review of the dam class is to consider the rationale and recommendations in the 2022 Dam Safety Review Report;
- Rationale for not accepting the recommendations on the dam class in the 2022 Dam Safety Review Report; and
- Supporting evidence for NATCL's proposed dam class.

As information in the DSR Report, Implementation Plan, and the June 16, 2023 response from NATCL need to be considered to draft the water licence condition DAM SAFETY REVIEW, these documents will be considered as part of the record for the Licence MV2023L2-0001 and Permit MV2023D0010 proceeding.

Please contact [Kim Murray](#) via email or at (867) 766-7458 with any questions or concerns regarding this letter.

Yours sincerely,



Kim Murray  
Regulatory Specialist

BCC'd to: NATCL/Cantung Distribution List  
Tim Morton – Inspector