

Date: September 30, 2015

- To: Dave Ryder, Mine Manager Teck Resources Limited, Beaverdell Mine
- Cc: Diane Howe, Deputy Chief Inspector, Reclamation and Permitting, MEM Heather Narynski, A/ Manager, Geotechnical Engineering, MEM

Re: <u>Review of Letter of Assurance Submission from June 30, 2015</u>

The Ministry of Energy and Mines (MEM) has engaged a consulting firm to evaluate the consistency and compliance of your letter of assurance in response to the Chief Inspector's orders issued on February 3, 2015. This review has determined that your submission satisfies the requirements of the order.

Below is a summary of the assessment made by your Qualified Professional Engineer (QPE) with associated plans/schedule to address the gaps identified:

Status of Foundation Condition

"Glacio-lacustrine silt and clay foundations might be present" at the Beaverdell Mine. The design of the facilities do not account for this type of foundation. As the Beaverdell TMFs are in active-care closure and there are no plans to restart tailings operation or raise of the tailings dams, "a risk-informed approach to the analyses and assessment of dam safety" has been proposed to address gaps identified.

The mine has committed to:

• "Conduct a design review of the dams based on a risk assessment approach consistent with the CDA Dam Safety Guideline", to be completed by 2016.

Status of Water Balance Adequacy

"There is low volume of stored free water contained within the TMFs at Beaverdell" and " the Inflow Design Flood is expected to be retained within the South TMF, however survey of Pond 3 should be completed to confirm available storage volume."

The mine has committed to:

• *"Complete a detailed survey of Pond 3 to confirm available water storage" by 2015.*

Status of Filter Adequacy

"The filter compatibility of Ponds 1, 2 and 3 is unknown" and "some sand and gravel gradations for Ponds 4, 5, 6 and 7 are susceptible to internal stability. Due to the expected drained, non-saturated condition of the tailings within all ponds and the sand and gravel dams of the TMFs, it is believed that there is typically insufficient hydraulic gradient to drive a potential piping failure."

The mine has committed to:

• "Conduct a risk assessment to assess the dam safety against piping under flooded conditions that is consistent with CDA Dam Safety Guidelines" by 2016.

MEM supports the proposed plan of action. Please ensure that all work as outlined above is completed within the specified timeframe. MEM will be following-up by January 15, 2016 and 2017 to obtain a status update with respect to the work completed and commitments made.

The orders issued on February 3, 2015 have been requested to provide assurance the conditions at the Mount Polley dam do not exist in other facilities. Please ensure that you are meeting your other ongoing requirements to ensure Tailings Storage Facility safety with respect to the following:

- Satisfying any outstanding orders from previous Ministry inspection reports.
- Satisfying any outstanding recommendations from previous Dam Safety Inspections (DSI) or Dam Safety Reviews (DSR).

It is expected that you will ensure dam safety management is continuously reviewed, improved and refined throughout the life of mine.

Thank you for your submission to the orders of February 3, 2015.

Sincerely,

Al Hoffman, P. Eng. Chief Inspector of Mines Ministry of Energy and Mines