



Date: September 30, 2015

To: Chris Gibbs, Vice President – General Manager
Endako Mine

Cc: Diane Howe, Deputy Chief Inspector, Reclamation and Permitting, MEM
Heather Narynski, A/ Manager, Geotechnical Engineering, MEM

Re: **Review of Letter of Assurance Submission from June 30, 2015**

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. Based on the review, please provide the following by November 15, 2015:

- A sealed version of the Letter of Assurance by your Qualified Professional Engineer (QPE)
- Proposed timeline for addressing the gaps identified in filter compatibility.

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

Status of Foundation Condition

"The assessment indicate that the likelihood for Tailings Pond 1 and 3 and Tailings Pond 2 of having foundation conditions similar to that found at the Mount Polley dam site is very low" and "Boreholes records and geotechnical interpretation show that the foundation conditions consist of dense glacial till of varying thickness overlying bedrock. In addition, Endako is planning on conducting additional geotechnical investigations for Tailings Ponds 1 and 3 to support details design of future dam raises above elevation 980 m."

Status of Water Balance Adequacy

"Endako does not plan to release surplus mine water beyond permitted levels. The following procedure is used by Endako to lower pond levels in the event of long (wet years) or short duration increase of pond level; prioritize reclaim pumps to control decant pond, pump excess reclaim water through overflow system, monitor water elevation and maintain record. Golder understands that a more comprehensive monitoring of beach width will be implemented by Endkao as soon as the mine operation starts."

Status of Filter Adequacy

"In October 2014, Endako raised the starter rockfill dam to elevation 3,205 ft and the as-built information was document by Golder. This document specifies that material gradation for the construction material needs to be conducted to confirm that technical specifications are met."

The QPE has recommended:

- *“Construction material gradation for the raised starter rockfill dam at the West end of Tailings Pond 3 needs to be conducted to confirm that the requirements of the technical specifications are satisfied and to evaluate the need for filter material or geotextile on the upstream slope of the raised rock dam.”*

MEM supports the proposed plan of action. Please ensure that all work as outlined above is completed within the specified timeframe.

The orders issued on February 3, 2015 have been requested to provide assurance that 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).

The 2014 Dam Safety Inspection (Golder, November 14, 2014) highlighted the following conclusions/recommendation with respect to instrumentation of tailings ponds:

“Follow tailings deposition plan and construction prepared by mines staff and design report by Golder (Q3 2015).”

“Maintain more than minimum beach width and freeboard in eroded zone in North Dam. Repair should be constructed as part of the construction of the north infill (Q2/3 2015).”

“Install vibrating wire piezometers and survey prisms” to address lack of “control and monitoring of tailings pond (Q4 2015 and ongoing execution).”

- Please provide an update on the status of the above 2014 DSI recommendations by January 15, 2015.

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,

A handwritten signature in black ink, appearing to read 'Al Hoffman', written over a horizontal line.

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