

Ministry of Energy and Mines

Mines and Mineral Resources Division

MEMORANDUM

Date: September 30, 2015

To: Paul Cowley, Mine Manager

Greenwood (Zip) Mill

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. 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

"The foundation soils encountered in the dam foundation area are characterized as outwash sand and gravel. Some glacial till exists beneath the sands and gravels, but the till is primarily upstream of the dam foundation and under part of the upstream toe. The outwash sands and gravels consist of a dense, angular silty sand gravel material, which would be expected to have ample shear strength from the site investigation data, there is no indication of any weak glacio-lacustrine soils in the dam foundation."

Status of Water Balance Adequacy

"No surplus water has been added to the facility in the past five years. The spillway was constructed to allow emergency release of water in the event of an extreme wet year. It is not anticipated that the spillway would discharge under any but extreme circumstances."

Monitoring monuments are not found at the tailings impoundment; The QPE has stated:

• "The recommendation to install deformation monitoring monuments. It is recommended that Huakan install these in 2015."

Status of Filter Adequacy

"At the low gradients to which the dam could be subjected, these broadly graded materials will have adequate filter compatibility. Regardless of filter compatibility, the embankment relies primarily on the geomembrane liner for seepage control. Piezometer readings indicate that the embankment is fully drained, with no phreatic water levels within the embankment."

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 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