



Date: January 27, 2015

To: John Knapp, Mine Manager
Myra Falls – Nyrstar
[Sent by Email: John.Knapp@nyrstar.com]

Cc: Diane Howe, Deputy Chief Inspector, Reclamation and Permitting, MEM
George Warnock, Manager, Geotechnical Engineering, MEM
Heather Narynski, Sr. Geotechnical Inspector, MEM

Re: **Review of Submission in Response to Chief Inspector's Orders Issued on August 18, 2014**

The Ministry of Energy and Mines has engaged a consulting firm to ensure the consistency and compliance of your submissions in response to the Chief Inspector's orders issued on August 18, 2014. This high-level review has determined that your submission satisfies the requirements of the Order; however, following items shall be addressed:

Dam Safety Inspection (DSI) Study:

- For consistency with MEM's Dam Safety Inspection Guidelines and good engineering practice, the DSI shall be revised and re-submitted by June 30, 2015 to address the following items:
 - Water balance review
 - Freeboard and storage availability
 - Water discharge system, volumes and quality
 - Seepage occurrence and water quality

Emergency Preparedness and Response Plan (EPRP):

- For consistency with CDA Guidelines and good engineering practice, the EPRP shall be revised to include the following items and shall be re-submitted by June 30, 2015:
 - The EPRP shall incorporate the findings of the Dam Break Inundation study
 - Inundation maps
 - Modifications based on EPRP test findings

Testing of the EPRP:

- The test summary provided little detail and the results of the upcoming practical test shall be submitted by June 30, 2015.

Dam Break Inundation (DBI) Study:

- For consistency with CDA Guidelines and good engineering practice, the next update to the DBI shall include:

- Sensitivity analyses on breach analyses parameters (CDA technical bulletin on Inundation, Section 2.1)

In addition to the requirements listed above, all recommendations made by your consultants within each document submitted, shall be addressed in the timeframe specified. MEM will be following-up in the fall of 2015 to obtain a status update with respect to all recommendations and commitments, as well as any submission deficiencies noted above.

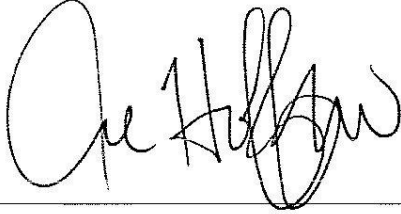
This review is specific to the orders issued on August 18, 2014, which does not encompass all aspects of dam safety in relation to the tailings dam(s). Please ensure that you are meeting your ongoing requirements with respect to the following:

- Satisfying any outstanding orders from previous Ministry inspection reports.
- Satisfying any outstanding recommendations from previous Dam Safety Inspections (DSI) or Dam Safety Reviews (DSR).
- Submission of annual Dam Safety Inspection (DSI) reports as per Section 10.5.3 of the Health, Safety and Reclamation Code for Mines in BC (Code). These reports are to be submitted by March 31st in the year following the inspection. The next DSI (for 2015) will be due March 31, 2016.
- Submission of Dam Safety Review (DSR) reports based on the dam consequence classification frequency as outlined in the Canadian Dam Association (CDA), 2007 Dam Safety Guidelines. The DSR shall follow APEGBC's "Professional Practice Guidelines for Legislated Dam Safety Reviews in BC". This document can be located at: <http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/GEOTECH/Pages/default.aspx>, or on the APEGBC website.
- A current Operation, Maintenance and Surveillance (OMS) manual which shall be regularly revised during operations, decommissioning and closure as per Section 10.5.2 of the Code.
- A current Emergency Preparedness and Response Plan (EPRP) and Dam Break Inundation Study which shall be regularly revised (applies to "high", "very high" and "extreme" consequence dams).
- Submission of as-built reports subsequent to new construction and any dam raise as per Section 10.5.1 of the Code.
- Submission of closure plans, and installation of a spillway, designed by a Professional Engineer, in accordance with the CDA, Dam Safety Guidelines prior to closure as per Sections 10.6.10 and 10.7.19 of the Code, respectively.

I remind you of your responsibility to ensure full compliance with orders, permit conditions and the requirements of the *Mines Act* and Health, Safety and Reclamation Code at all times. It is my expectation that the information requested will be submitted in the timeframe provided.

I look forward to your diligent and timely attention to this matter.

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*