

Independent Expert Engineering Investigation and Review Panel

**Report on Mount Polley
Tailings Storage Facility Breach**

Appendix A: Terms of Reference

January 30, 2015

Terms of Reference for Independent Expert Engineering Investigation and Review Panel

Establishment of the Panel

Pursuant to the Mount Polley Investigation and Inquiry Regulation, issued pursuant to section 8 (2) of the *Ministry of Energy and Mines Act*, I direct that an independent expert engineering investigation and review Panel (the Panel) be established, in accordance with these Terms of Reference, to investigate into and report on the breach of the tailings storage facility (TSF) at the Mount Polley mine on August 4, 2014.

For the purposes of conducting the investigation into the breach of the tailings storage facility at the Mount Polley mine on August 4, 2014, I confer upon the Panel members the powers and authorities as set out in section 8.2 and 8.4(1) of the *Ministry of Energy and Mines Act*.

I further confer upon the Panel members the protection set out in section 8.5 of the *Ministry of Energy and Mines Act*.

Purpose of the Panel

The purpose of the Panel is to investigate into and report on the cause of the failure of the tailings storage facility that occurred on August 4, 2014 at the Mount Polley mine in BC.

The Panel will report on the cause of the failure of the tailings storage facility at the Mount Polley mine. In addition, the Panel may make recommendations to government on actions that could be taken to ensure that a similar failure does not occur at other mine sites in BC.

The Panel is authorized, as part of its investigation and report, to comment on what actions could have been taken to prevent this failure and to identify practices or successes in other jurisdictions that could be considered for implementation in BC.

Scope of Review

In its report, it is expected the Panel will:

- a) identify any mechanism(s) of failure of the tailings storage facility;
- b) identify any technical, management, or other practices that may have enabled or contributed to the mechanism(s) of failure. This may include an independent review of the design, construction, operation, maintenance, surveillance and regulation of the facility;
- c) identify any changes that could be considered to reduce the potential for future such occurrences.

In conducting its investigation and in order to prepare its report into the cause of the failure of the tailings storage facility at the Mount Polley mine, the Panel may, at its discretion, and as it deems necessary, examine some or all of the following in respect of the Mount Polley mine in BC:

- geotechnical designs of the dams and structures associated with the TSF, including both intact and breached embankments, and including both the original design and all lifts of the embankment structure;
- the adequacy of geotechnical investigations completed throughout design and operation of the facility;
- interpretation of results of geotechnical investigations and associated laboratory testing;
- patterns, trends, and relationships in instrumentation behaviour;
- interpretation of instrumentation and performance data in relation to dam behaviour;
- whether or not dam instrumentation and monitoring was consistent with standards of practice;
- appropriateness of methods and input parameters for geotechnical analyses;
- materials, methods, procedures, and quality assurance/quality control practices for dam construction and modification, and a determination with respect to whether or not construction was completed in general conformance with the design;
- water balance and water quality as they relate to the TSF breach;
- operational procedures and planning for tailings deposition and water management;
- inspection and surveillance procedures and implementation;
- the Engineer of Record's field reviews to ensure that construction was in conformance with design;
- regulatory oversight by the Ministry of Energy and Mines and the Ministry of Environment; and
- other matters the Panel deems appropriate to be examined.

Panel Members

The Panel shall determine the process and procedures of its investigation, except that:

- The Panel shall, at the request of the First Nation Liaison, direct the Secretariat to provide to the First Nation Liaison for his review, information, including technical information, supplied to the Panel.
- The Panel shall permit the First Nation Liaison to attend site visits with the Panel and all Panel meetings whether such meeting is held in person, teleconference or electronically.

The Panel members are:

- Norbert Morgenstern
- Steven G. Vick
- Dirk Van Zyl

The Panel will be chaired by Norbert Morgenstern.

A liaison will be appointed in consultation with the Williams Lake Indian Band and the Soda Creek Indian Band.

First Nation Liaison

A First Nation Liaison will be appointed in consultation with the Williams Lake Indian Band and the Soda Creek Indian Band. The First Nation Liaison will respect the independence of the Panel. The First Nation Liaison is not a Panel member. The role of the First Nation Liaison is to observe the Panel process and support and provide liaison to the Chiefs of the Soda Creek Indian Band and Williams Lake Indian Band.

The First Nation Liaison will keep any information received from the Panel strictly confidential until such time as the investigation is complete and the Panel's Report and Recommendations are released.

The First Nation Liaison will communicate with the Chiefs of the Soda Creek Indian Band and Williams Lake Indian Band to provide them with feedback about the Panel's Report and Recommendations when the Panel's Report and Recommendations are released. The First Nation Liaison will assist the Chiefs of the Soda Creek Indian Band and the Williams Lake Indian Band, if requested to do so, in communicating the results of the Panel's Report and Recommendations to band members.

Secretariat to the Panel

Administrative, technical and procedural support required by the Panel shall be provided by a secretariat.

Kevin Richter will manage the secretariat in support and under the direction of the Panel.

Information to be provided to the Panel

The Panel will be supplied with all available information necessary for achieving its purpose and performing its functions.

Timeline

The Panel will submit a final report to the Minister of Energy and Mines and the Williams Lake Indian Band and the Soda Creek Indian Band on or before January 31, 2015.

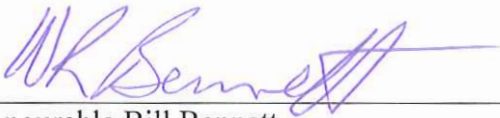
Limitations

The Panel shall perform its duties without expressing any conclusions or recommendations regarding the potential civil or criminal liability of any person or organization. The Panel shall further ensure that the conduct of the inquiry does not in any way impede or conflict with any other ongoing investigation or proceeding related to these matters. Specifically, the Panel's review will not in any way impede investigations conducted by Mines Inspectors, Conservation Officers or other regulatory agencies and any related proceedings.

The First Nation Liaison will ensure that, when exercising the privileges accorded to him, he does not in any way impede or conflict with any other ongoing investigation or proceeding related to these matters, specifically the investigations conducted by Mines Inspectors, Conservation Officers or other regulatory agencies and any related proceedings.

Original issued August 18, 2014.

Update [additions underlined] issued October 6, 2014



Honourable Bill Bennett
Minister of Energy and Mines
and Minister Responsible for Core Review