



## Public Comment and Consultation Code Review

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### Health, Safety and Reclamation Code for Mining in British Columbia

#### Introduction

The Independent Expert Engineering Review Panel (Expert Panel) has completed their investigation into the root cause of the Mount Polley Tailings Facility Breach and made seven recommendations to improve practice and reduce the potential for future failures. Government accepted all of the recommendations and has committed to implementing them.

Addressing many of the recommendations will involve considering amendments to the Health, Safety and Reclamation Code for Mines in BC (Code). In order to review the Code, the Minister appoints members of the Code Review Committee (Committee) under section 34 of the Mines Act. The Chief Inspector of Mines (CIM) chairs the committee.

The purpose of the Code is to:

- Protect employees and all other persons from undue risks to their health and safety arising out of or in connection with activities at mines.
- Safeguard the public from risks arising out of or in connection with activities at mines.
- Protect and reclaim the land and watercourses affected by mining.
- Monitor the extraction of mineral and coal resources and ensure maximum extraction with a minimum of environmental disturbance, taking into account sound engineering practice and prevailing economic conditions.

Further information on the Code can be found here:

<http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/health-safety/health-safety-and-reclamation-code-for-mines-in-british-columbia>

Initial work will be expedited to determine how to best implement the Expert Panel's recommendations regarding best available technology and practices, additional permit application requirements and safety standards that are tailored to British Columbia.

#### Public Comment Period

In undertaking the review the Committee will hold a 60 day public comment period. Submissions are invited on how best to implement the Expert Panel's recommendations through potential changes to the Health, Safety and Reclamation Code for Mines in BC.

The public comment period will commence July 15, 2015 and will be open until September 16, 2015. Please provide submissions to the Code Review Secretariat at [CodeReview@gov.bc.ca](mailto:CodeReview@gov.bc.ca)

All written comments received by the public during this period will be provided to the Code Review Committee for consideration. All public comments received by the Secretariat for the Code Review become property of the government.

#### **Independent Panel Recommendations:**

##### **1. Implement BAT using a phased approach:**

- **For existing tailings impoundments.** Rely on best practices for the remaining active life.
- **For new tailings facilities.** BAT should be actively encouraged for new tailings facilities at existing and proposed mines.
- **For closure.** BAT principles should be applied to closure of active impoundments so that they are progressively removed from the inventory by attrition.

##### **2. Improve corporate governance:**

- Corporations proposing to operate a tailings storage facility (TSF) should be required to be a member of the Mining Association of Canada (MAC) or be obliged to commit to an equivalent program for tailings management, including the audit function.

##### **3. Expand corporate design commitments:**

- Future permit applications for a new TSF should be based on a bankable feasibility that would have considered all technical, environmental, social and economic aspects of the project in sufficient detail to support an investment decision, which might have an accuracy of +/- 10-15%. More explicitly it should contain the following:
  - A detailed evaluation of all potential failure modes and a management scheme for all residual risk
  - Detailed cost/benefit analyses of BAT tailings and closure options so that economic effects can be understood, recognizing that the results of the cost/benefit analyses should not supersede BAT safety considerations
  - A detailed declaration of Quantitative Performance Objectives (QPOs).

##### **4. Enhance validation of safety and regulation of all phases of a TSF:**

- Increase utilization of Independent Tailings Review Boards.

##### **5. Strengthen current regulatory operations:**

- Utilize the recent inspections of TSFs in the province to ascertain whether they may be at risk due to the following potential failure modes and take appropriate actions
  - Filter adequacy
  - Water balance adequacy
  - Undrained shear failure of silt and clay foundations
- Utilize the concept of Quantitative Performance Objectives to improve regulator evaluation of ongoing facilities.

##### **6. Improve professional practice:**

- Encourage the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) to develop guidelines that would lead to improved site characterization for tailings

dams with respect to the geological, geomorphological, hydrogeological and possibly seismotectonic characteristics.

**7. Improve dam safety guidelines:**

- Recognizing the limitations of the current Canadian Dam Association (CDA) guidelines incorporated as a statutory requirement, develop improved guidelines that are tailored to the conditions encountered with TSFs in British Columbia and that emphasize protecting public safety.