



Environmental  
Assessment Office

**Environmental Assessment Office's  
Assessment of an  
Application for Amendment**  
*Mount Polley Copper-Gold Mine Project*  
*Environmental Assessment Certificate #M96-07*

**Requested by:**  
**Mount Polley Mining Corporation**

**May 18, 2016**

*Pursuant to Section 19 of the Environmental Assessment Act, S.B.C. 2002, c.43*

## 1. OVERVIEW OF PROPOSED AMENDMENT

On April 14, 2016, Mount Polley Mining Corporation (MPMC) submitted an application (Amendment Application) to the Environmental Assessment Office (EAO) to:

- Amend condition 3 of their Environmental Assessment Certificate (EAC) to increase the milling rate from 13,700 tonnes per day (tpd) (equivalent to 5 million tonnes per year) to approximately 22,000 tpd (equivalent to 8.2 million tonnes per year); and
- change the holder of the EAC from Mount Polley Holding Company Limited to MPMC.

The Mount Polley copper and gold mine was approved in 1992, with the issuance of a Mine Development Certificate to Imperial Metals Corporation under the *Mine Development Assessment Act* that was applicable at the time. The Mine Development Certificate has continued in force, under the current *Environmental Assessment Act*, as EAC #M96-07. In 1997, Imperial Metals Corporation transferred the EAC to Mount Polley Holding Company Limited (EAC Amendment #1). Mount Polley Holding Company Limited amalgamated with MPMC on December 31, 2005. MPMC is a wholly owned subsidiary of Imperial Metals Corporation.

The Mount Polley mine is located in the Cariboo region of central British Columbia, approximately 55 kilometres northeast of Williams Lake and within the asserted traditional territory of the Williams Lake Indian Band and the Xat'sull First Nation (Soda Creek Indian Band). The asserted traditional territories of Tsilhqot'in Nation and Neskonlith Indian Band also overlap with the Mount Polley mine. The Project was approved for operation with a *Mines Act* (MA) permit (M-200) on August 3, 1995 and an *Environmental Management Act* (EMA) permit (11678) on May 30, 1997. From the time of the Environmental Assessment (EA) Application in 1990 to the beginning of operations in 1995 the mine design evolved including with respect to the size of the tailings management facility, waste dump size and location, new temporary potentially acid generating stockpile, additional open pits, and the inclusion of underground mining. One of the changes to the design was an increase in milling rate from 13,700 tpd to an average rate of 18,000 tpd prior to 2010 and then another increase to about 21,000 tpd from 2010 to 2014 (annual production up to 8 million tonnes). Design changes were approved through the MA and EMA permits and subsequent amendments; however, no environmental assessment approvals were sought for design changes during this period.

On August 4, 2014, a dam breach of the tailings storage facility occurred and operations stopped. Following the breach, MPMC submitted an application to the Ministry of Energy and Mines (MEM) and Ministry of Environment (MoE) to amend MA Permit M-200 and EMA Permit 11678 to allow the mine to return to restricted operations using the Springer Pit for tailings deposition. Approval to resume restricted operations was received in July 2015, for mining of up to 4 million tonnes of ore within one year from the date of permit issuance. MPMC restarted operations on August 5, 2015.

MPMC applied to MEM for a return to full operations at the Mount Polley mine November 6, 2015. MPMC also applied for MA and EMA permit amendments for an additional one million tonnes of ore to be processed and continued use of the Springer Pit to store tailings to allow continued restricted

operations until such time that a decision is made on the proposed return to full operations. MEM and MoE Statutory Decision Makers issued permit decisions on April 29, 2016, to authorize the requested extension to restricted operations.

The EAC requires an amendment for changes in milling rate or the term of the EAC (condition 3). All other alterations of the Project, if they are 'material', require the written consent of the Minister of the Environment and the Minister of Energy and Mines.

Subsequent to discussions with MEM and EAO from November 2014 to April 2016 regarding EAC requirements, on April 14, 2016, MPMC submitted the Amendment Application to EAO to amend condition 3 of their EAC and to change the holder of the EAC to MPMC.

## 2. AMENDMENT REVIEW PROCESS

For this Amendment Application review, EAO worked closely with MEM and made use of the Mine Development Review Committee (MDRC) established pursuant to section 9 of the *Mines Act* and Part 10.3.1 of the Health Safety and Reclamation Code for Mines in British Columbia. EAO distributed the Amendment Application to the MDRC for review and comment. The MDRC includes membership by Williams Lake Indian Band, Xat'sull First Nation, local governments, Interior Health, MoE, Ministry of Forests, Lands and Natural Resource Operations (FLNRO), Environment Canada, Fisheries and Oceans Canada (DFO), and MEM. The MDRC has been very active with the Mount Polley mine authorizations process since the dam breach in 2014 and are familiar with the current technical issues.

Based on the request to amend the EAC, EAO determined levels of engagement as listed below. As noted in the overview, the higher milling rate has occurred since the inception of the mine, has increased over time, and has previously been approved under MA and EMA permits, which included consultation with Aboriginal Groups, the public and government agencies.

- Public consultation was not required specific to the Amendment Application based on the rationale that there is low likelihood of impact resulting from the proposed amendment, and there have been previous opportunities for public input on project related operations including a higher milling rate.
- Potential adverse environmental, economic, social, health and heritage effects were viewed as low in consideration of the lack of concerns raised during previous approvals regarding the milling rate.
- Potential impact on Aboriginal interests and asserted aboriginal rights was viewed as low-moderate. The Williams Lake Indian Band and Xat'sull First Nation were consulted on previous mine permits where the milling rate was higher than provided for in the EAC. Further information is described in section 4.0.

Comments received from the MDRC on the Amendment Application are summarized in section 3 below. MPMC responded to all comments received. The MDRC was provided an opportunity to comment on the adequacy of MPMC's responses to MDRC comments.

EAO circulated a draft of this summary report to the MDRC and MPMC on May 5, 2016 for comment and revised the draft in consideration of their input.

### 3. SUMMARY OF ISSUES AND EFFECTS

Comments on the Amendment Application were received from FLNRO, MoE, MEM, Interior Health, the Williams Lake Indian Band and Xat'sull First Nation. MoE, MEM and Aboriginal Groups stated they had no concerns with the proposed increase to the milling rate in the EAC. Williams Lake Indian Band and Xat'sull First Nation provided their support for the proposed amendment.

#### Bootjack Lake Dam

The Bootjack Lake dam was constructed by MPMC in fall 1996 as a condition of the Habitat Compensation Agreement (HCA) between DFO and MPMC to compensate for the loss of productive capacity of local fish habitat in Edney Creek tributary caused by the construction of the tailings storage facility. The modern Bootjack Lake dam replaces an old plug dam built by turn-of-the-century miners to force water into Morehead Lake to the Bullion Pit area for hydraulic mining purposes.

FLNRO water stewardship expressed concern that FLNRO fisheries holds the water license on Bootjack Lake, but the mine is responsible for the dam and dam safety under the HCA. Currently MPMC is diverting water at Bootjack Lake without a license to fulfil the requirements of the HCA. MPMC noted that MPMC inspects the dam annually and has agreed under the HCA to *'maintain the dam until abandonment of the mine or until relieved of its responsibility by Her Majesty, whichever comes first'*. FLNRO water stewardship is concerned that there would be an orphaned dam when the mine closes down. Under the *Water Sustainability Act (WSA)* and the 2016 Dam Safety Regulation, FLNRO requires MPMC to be the license holder or recognized as an agent on the license.

EAO is satisfied this issue will be resolved under the provisions of the WSA. EAO's view is the ownership and responsibility of the dam does not relate to project effects associated with the proposed amendment to the milling rate.

#### Human Health Assumptions

Interior Health expressed concerns with the reliance of the Amendment Application on the Human Health Effects Risk Assessment (HHERA) that is still in draft form. MPMC acknowledged that the Detailed Site Investigation and draft Risk Assessment Problem Formulation (the initial step of the HHERA) have been submitted to MoE for comment. This work has been conducted to address concerns and potential health impacts associated with the tailings dam breach in 2014 and as a requirement under the Pollution Abatement Order. The Pollution Abatement Order requires a comprehensive environmental impact assessment and related action plan to mitigate and restore the impacts of the dam breach. MPMC notes in the Amendment Application that the HHERA is also relevant to past operations because the sampling conducted to support the health assessment reflected conditions that existed under the higher milling rates. The original EA Application did not assess human health effects.

As part of the HHERA, MPMC conducted sampling and analysis to support a multipathway exposure assessment for people who may use areas impacted by the tailings dam breach. Sampling included a range of possible contaminants in soil, sediment, groundwater, surface water, plants and fish tissues and

both direct contact and indirect contaminant exposure pathways. The results indicated that human health risks are considered to be acceptable.

The Ministry of Health (MoH) conducted an independent investigation of water, sediment and fish data collected by MoE. In 2015, MoH released a public service communication notifying stakeholders that the results of these samples continue to show that there are no known risks to human health.

EAO is satisfied that Interior Health's concerns will be adequately addressed through the requirements of the Pollution Abatement Order. EAO expects that there would be no human health effects associated with the increased milling rate.

#### **4. ABORIGINAL CONSULTATION**

The Williams Lake Indian Band and the Xat'sull First Nation signed a letter of understanding with the Government of British Columbia to work in partnership with respect to the breach of the tailings storage facility. These two Aboriginal Groups have been involved in reviewing permits and activities associated with the mine and have Participation Agreements signed with MPMC that includes regular meetings. They are active members of the MDRC and have met with MPMC and MEM regarding the full-scale restart on numerous occasions including MDRC meetings and community meetings (November 26, 2015, January 28, February 4, March 16, March 17, and April 15, 2016). These Aboriginal Groups received copies of the Amendment Application and provided comments of support for the proposed amendment.

EAO sent letters of notification regarding the proposed amendment to Neskonlith Indian Band, Tsilhqot'in Nation and Lhtako Dene Nation (Lhtako Dene).

Based on the information reviewed, EAO's assessment is that any potential impacts on Neskonlith Indian Band's and Tsilhqot'in Nation's asserted or established Aboriginal rights, including title (Aboriginal Interests) from the proposed amendment, would be negligible. Therefore, no further engagement was pursued with these Aboriginal Groups regarding the proposed amendment.

EAO is aware that Lhtako Dene has expressed concerns to the Minister of Environment about downstream impacts from Mount Polley related to the dam breach and mine water discharge. The proposed amendment does not include any proposed discharge to the environment. As a result, EAO determined that the proposed amendment does not have any potential impact to Lhtako Dene's Aboriginal Interests. Therefore, no further engagement was pursued with Lhtako Dene regarding the proposed amendment.

## 5. PUBLIC CONSULTATION

It was determined that public consultation was not required specific to the Amendment Application based on the rationale that there is low likelihood of impact resulting from the proposed amendment, and there have been previous opportunities for public input on project related operations including a higher milling rate. Most recently these included public meetings in Likely, Williams Lake and Quesnel on January 19, 20 and 21, 2016, respectively.

## 6. CONCLUSIONS

Based on:

- The information contained in the Amendment Application;
- Comments on the Amendment Application by Aboriginal groups, and federal and provincial government agencies, as members of the MDRC, and MPMC's responses to these comments; and
- Support for the proposed amendment from Williams Lake Indian Band and Xat'sull First Nation.

EAO is satisfied that:

- The amendment assessment has adequately identified and assessed the potential changes to the adverse environmental, economic, social, heritage and health effects resulting from the proposed amendment;
- Issues identified during review of the Amendment Application, which were within the scope of the assessment of the proposed amendment, were adequately and reasonably addressed by MPMC;
- Practical means have been identified to prevent or reduce any potential adverse environmental, economic, social, heritage and health effects of the proposed amendment such that no significant adverse effect is predicted or expected;
- The potential for adverse effects on Aboriginal Interests of Aboriginal Groups has been avoided, minimized or otherwise accommodated to an acceptable level; and
- The provincial Crown has fulfilled its obligations for consultation and accommodation to Aboriginal Groups relating to the issuance of an amendment to EAC.