

**Ministry of Energy, Mines and Low Carbon Innovation
Mines Competitiveness and Authorizations Division**

Permitting Pilot and Custom Mill Operations

Policy and Information Bulletin

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1.0 Introduction

This information bulletin outlines the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) policy relating to the permitting of proposed pilot, portable and custom mill operations.

Operations including pilot/portable and custom milling operations are defined as mines, since processing is included under the definition of a mine in the *Mines Act*, and therefore fall within the regulatory framework of the *Mines Act* and the Health, Safety and Reclamation Code for Mines in British Columbia. These operations, whether on private or Crown land, require a permit and a reclamation security bond to ensure that the public is not required to pay for the reclamation and closure of the sites if they are abandoned.

Proponents are advised to contact EMLI Major Mines Office for information and advice relating to custom mill proposals, and the appropriate EMLI Regional Office for advice on pilot or portable mills. Early conversations will help to establish the application information requirements that will be key to successful permitting. Note that other permits or authorizations may also be required under the *Environmental Management Act*, and the *Water Sustainability Act* if water is to be consumed or discharged, or if mine contact water will be discharged. If other permits or authorizations are required, the application will need to be referred to other regulatory agencies. Indigenous community consultation will also be required.

2.0 Background

Milling (processing) of ore is a critical component of any metal mine operation. Milling can be very expensive because of the capital expense required, the operating costs, and the requirement for a reclamation security bond, which can be significant depending on the processing specifics. Smaller mine operators may; therefore, seek a more cost-effective option for milling ore.

These options include:

- establishing a temporary pilot or portable mill, generally operated in connection with an exploration project; or
- processing ore at an existing permanently established mill which has the capacity to custom mill ore from separate deposits.

Pilot or Portable Mills are small portable mills generally designed to test the viability of the project by using different milling processes. Typically, pilot/portable mills are established as part of an advanced exploration program, where the rights to use the surface is acquired under a mineral claim. These operations can generally be characterized by:

- being relatively small with portable equipment capable of processing less than 50 tonnes per day;
- having a milling program that is limited in duration to the permitted bulk sample program with mill feed from the permitted ore only;
- having a total volume of produced tailings that will not exceed that produced from 10,000 tonnes ore feed (mineral bulk sample); and
- maintaining no residual liability, typically defined as no further cost to remediate or reclaim the disturbance and no long-term monitoring and maintenance requirements once the pilot mill has been removed.

Custom Mills are permanent facilities used to custom mill ore from multiple, separate, off-site deposits. Custom mill operations are generally located on closed mine sites with depleted ore reserves where the mill and tailings storage facilities are still capable of operating. An approval is required from the Chief Permitting Officer to amend the approved mine plan to incorporate a custom milling operation. Custom mills are not portable and have constructed tailings storage facilities with ongoing monitoring and maintenance commitments. Any changes to the plans for discharge will also require review and approval under the *Environmental Management Act*, prior to operation. Custom mills located on private land are still required to hold permits issued under the *Mines Act* and *Environmental Management Act*. Custom mills, once permitted, are subject to assessment, monitoring, and reporting of the incoming ore and processing, subject to conditions in the *Mines Act* and *Environmental Management Act* permits.

The key differences between Pilot and Custom mills are:

- a custom mill permit does not expire;
- a custom mill permit, by written approval of the Chief Permitting Officer, may be able to process ore from more than one ore source;
- a custom mill will have a designated tailings storage facility and a greater capacity to store tailings than a pilot/portable mill;
- a custom mill will likely have constructed infrastructure that will require greater decommissioning costs and; therefore, a higher reclamation security bond; and
- a custom mill has the potential for long-term liabilities.

The key similarities between Pilot and Custom mills are:

- both require *Mines Act* and *Environmental Management Act*, and possibly also *Water Sustainability Act* permits;
- both require site water management provisions and may require characterization of potential effects to ground and surface water;
- both require engineered storage disposal options for waste rock and tailings with the objective of limiting long-term liabilities;
- both require health/safety and environmental protection programs;
- both require characterization of the ore and waste materials; and
- both require reclamation and closure plans and a requisite reclamation security bond.

3.0 Regulatory Requirements

Pilot/portable mills currently permitted under a regional (MX) permit will remain under their existing permit and will continue to be regulated by the Regional Operations Branch. Custom mills that are currently permitted under a major mine mineral (M) permit will remain under their existing permit and will continue to be regulated by the Major Mines Office.

3.1 Pilot Mills

For new mills that are being established on private land or Crown land not within a currently permitted mine area, mobile mills having no permanent infrastructure, will be permitted under a MX permit through the Notice of Work (NoW) process.

A *Mines Act* permit is required for the construction, operation, and closure of the Mill and tailings storage facility and an *Environmental Management Act* permit is required for disposal of tailings and the discharge of contact water to the receiving environment. Where applicable, a joint *Mines Act/Environmental Management Act* application format will be required for the review. This must include a project description submitted prior to the application to assist agencies in understanding application information requirements specific to the proposal.

Applications should provide consideration of alternative disposal of tailings and waste rock, such as backfilling of underground adits or pits/trenches from where the ore/waste rock was sourced or potentially, removal to an approved off-site disposal location.

A regional Mine Development Review Committee (MDRC) will be formed with technical specialists from both EMLI and ENV to review the application with the regional team prior to

issuance of a permit or permit amendment. Forests, Lands and Natural Resource Operations and Rural Development (FLNRORD) water stewardship may also need to be involved in the application review to assess whether water licenses are required under the *Water Sustainability Act*.

3.2 Custom Mills

For custom mill operations that are expected to have permanent structures, the Major Mines Office (MMO) will develop, on a case by case basis, a joint review process. A *Mines Act* permit application for new operations, or a permit amendment application for existing operations, will need to be submitted to MMO. Proponents are to submit applications by email to the Major Mines Office at PERMRECL@gov.bc.ca. Additional permit guidance can be found at:

<https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/permitting>.

3.3 Joint Application Information Requirements

EMLI and ENV have developed the *Mines Act/Environmental Management Act* Joint Application Information Requirements Guidance Document (JAIR) that sets out the information required to support a joint application for a *Mines Act* permit issued by EMLI, and (if required) an effluent discharge permit issued under the *Environmental Management Act* by ENV. The combined information requirements are intended to reduce overlap in the information required by both ministries and enable one application, or bundled applications, to be submitted for review. It is highly recommended that Proponents review this document and identify those areas that their application will need to address. Information can be summarized in the Information Requirement Table (IRT) appended to the document and submitted to the respective agencies along with a detailed project description.

Joint Application Information Requirements Website:

https://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/2019_09_24_joint_application_information_requirements.pdf

3.4 Additional Regulatory Considerations

Note that additional permits or authorizations maybe required depending upon the proposed mill. These include but are not limited to:

- Water authorizations – Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD);
- Road Use permits and access permits – FLNRORD and Ministry of Transportation and Infrastructure;

- Crown Land tenure under the Land Act – FLNRORD; and
- Timber removal – Free Use Permit or Occupant License to Cut – FLNRD.

Early conversations with EMLI staff can help to identify if other agencies will need to be involved. Information regarding these authorizations may be found on the FrontCounter BC website at: <http://www.frontcounterbc.gov.bc.ca/>

4.0 Review Process for Pilot and Custom Mills

In order to provide direction, guidance, and assistance to proponents, EMLI has developed a review process which includes early information exchange and dialogue with permitting agencies to ensure proponents understand the difference between a custom mill and a pilot mill, as well as the information required for the *Mines Act* and *Environmental Management Act* permit applications. Other potential permits or authorizations may also be identified and included in the review process.

4.1 Pre-Application Stage

The pre-application stage is designed to begin interactions between the proponent and government agencies to identify the review process steps and outline the information requirements for the permit applications. Proponents are requested to contact EMLI: PERMRECL@gov.bc.ca or ENV at ENVMining@gov.bc.ca prior to developing their applications.

4.2 Project Description

A project description outlining the details of the milling proposal will be required to assist the reviewers to scope the project, identify the issues to be addressed, and clarify the information requirements. Based on a review of the project description, guidance will be provided to assist the proponent in preparing their application. The application must be a single document with the project information, analyses and management plans to satisfy the *Mines Act* and *Environmental Management Act* permit application requirements, as well as any other potential permits identified in the review of a project description.

A project description template will be shared to assist proponents in providing the appropriate type and level of detail for the project.

After receiving the project description, a decision will be made, on the related mine permit application review fees pursuant to the Mines Fee Regulation which can be found at:

http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/permitting/2015_mines_fee_regulation.pdf

4.3 Indigenous Engagement

Once a project description has been developed, the proponent will be expected to have identified and contacted potentially affected Indigenous communities in the project area and to provide information on project plans, opportunities for Indigenous engagement and keep a record of these activities to be included in the project description.

During the application review phases, EMLI will consult with impacted Indigenous communities either through the referral process or as an integral part of the Mine Development Review Committee process.

4.4 Application Screening

Government technical and Indigenous reviewers will screen the application to ensure information requirements are complete. This is a critical step in the process. The proponent should ensure that the required information is presented in the format outlined in the JAIR. If the application does not sufficiently address the information requirements or is not in the correct format, considerable delays may be encountered.

4.5 Application Review

The length of the review period will depend on the quality of the application, the complexity of the proposed project, and whether the issues identified by reviewers are adequately addressed in a timely manner. If the issues identified are significant and require further data collection and analyses, the review period may be extended, which will delay the final adjudication.

4.6 Recommendations and Decision

At the conclusion of the technical review and Indigenous consultation, a report on the review and consultation will be provided to EMLI, ENV, and potentially other statutory decision-makers, who will take into consideration the results of the technical review, consultation and any other related matters in making informed decisions on the permit applications. Depending on the complexity of the application and the quality of the information provided, the process could take between 6 months and 2 years.

4.7 Security Assessment and Bonding

Reclamation security for proposed mills is required. A decision on the amount and timing of reclamation security is informed by a detailed reclamation and closure plan including cost estimates prepared by the proponent as part of the application, and as described in Section 4 of the JAIR. Section 4 outlines the information required for the proponent to meet Part 10 of the HSRC and considers;

- the decommissioning and removal of structures;
- final closure of the tailings area (and any long-term maintenance of these areas);
- remaining ore stockpiles;
- revegetation requirements;
- water treatment; and
- post closure monitoring.