



Ministry of Environment's Role in Mining Operations

The Ministry of Environment (MoE) plays a significant role along with other ministries and the federal government in regulating the mining sector. The purpose of this document is to provide an overview of MoE's responsibilities and a brief description of the roles and responsibilities of each provincial agency involved, and that of the proponent.

What is the Ministry of Energy and Mines' role?

All mining projects in BC are subject to approvals under the *Mines Act* and must comply with requirements of the Health Safety and Reclamation Code for Mines in BC. The Ministry of Energy and Mines (MEM) is responsible for the regulation of mines and mining activity, including mine health and safety to protect employees and to safeguard the public from undue risks in connection with mine activities as well as to ensure the protection and reclamation of the land and watercourses affected by the mine. MEM is also responsible for management of the financial security posted by the companies to ensure the province will not have to contribute to reclamation costs if a company defaults on its reclamation obligations.

Applications for mine permits, including exploration programs, are referred to other provincial agencies, including MoE, and to First Nations to review and provide comments that will better inform the Chief Inspector of Mines when making a decision to issue a permit.

What is the Ministry of Forests, Lands and Natural Resource Operation's (FLNRO) role?

FLNRO is responsible for:

- licensing or approving water use, and water storage facilities or diversion channels under the *Water Act* and the *BC Dam Safety Regulation*;
- reviewing/authorizing any cutting or spoiling of crown trees under the *Forest Act*, and
- authorizing access roads, utility corridors, and other improvements related to the mine operation on crown land outside of mine areas under the *Land Act* or *Forest Act*.

What is the Environmental Assessment Office's role?

The Environmental Assessment Office (EAO) is a neutral agency that manages the review of proposed major projects in BC, as required by the *Environmental Assessment Act* (EAA) and *Reviewable Projects Regulation*. The EAO ensures proposed major projects meet provincial environmental, economic and social objectives. The process evaluates proposed projects that are reviewable under the EAA for potential adverse environmental, economic, social, heritage and health effects. If a project is approved by Ministers, the EAO verifies and enforces compliance with the conditions set out in environmental assessment certificates.

What is the Federal Government's role?

Fisheries and Oceans Canada and Environment Canada are responsible for the *Fisheries Act*. Other federally-managed legislation may also apply, such as *Metal Mine Effluent Regulation*, *Species at Risk Act*, etc.

What is the Ministry of Environment's role?

MoE is responsible for regulating/authorizing the quantity and quality of any discharge to the

environment from activities relating to mining/exploration of:

- metals,
- coal,
- gemstones,
- industrial mineral ores (e.g. gypsum), and
- beneficiating mineral ores (e.g. custom milling).

The Ministry achieves this by using regulatory tools such as the *Environmental Management Act* (EMA), the Waste Discharge Regulation, and various other statutes (Placer Mining Waste Control Regulation, Hazardous Waste Regulation, Contaminated Sites Regulation, and the Municipal Wastewater Regulation).

What authorizations does MoE issue?

A site specific permit or approval can be issued under EMA.

Permit – authorizes an ongoing/long term discharge of waste to the environment to ensure protection of human health and the environment. Some of the terms and conditions include limiting the quantity and quality of waste discharge contaminants, monitoring the discharge and the receiving environment, and reporting information to MoE. Permits are ongoing authorizations and may be amended, transferred, suspended or cancelled.

Approval – similar to a permit except it is issued for short term discharges up to a maximum of 15 months duration. An approval may be amended, suspended, cancelled or transferred and will automatically expire at the end of its term. If a discharge is expected to go beyond the maximum 15 month discharge period, a permit is required.

MoE permit and approval processes are described at:

<http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization>

Apart from, permit and approval requirements, MoE can request additional information, or issue an order requiring the company to install additional works to protect the environment.

MEM and MoE work together to ensure permit requirements are coordinated in the *Mines Act* and EMA permits for a given project.

When does the MoE not get involved?

An EMA authorization from MoE is not generally required for activities associated with the mining/exploration of:

- gravel,
- sand,
- crushed rock, and
- dimensional stone quarries.

Despite the lack of a requirement for an EMA authorization, the Ministry can issue an order to prevent discharges to the environment or impose other requirements when pollution is occurring or anticipated to occur.

All other mining of metals, coal, gemstones, or industrial mineral ores or beneficiating mineral ores will require an EMA permit.

What types of wastes discharges require an EMA authorization from MoE?

- Effluent discharges to ground or surface water (such as neutral and acid rock drainage, tailings pond supernatant, mine influenced run-off and sewage);
- Air emissions (such as refuse incinerator emissions, dust, emissions from milling process); and,
- Solid wastes (such as mill tailings, water treatment plant sludge, municipal and industrial refuse).

What are the five phases of mining?

The five phases of mining identified include:

1. Exploration

Methods include drilling and various types of surveys, which do not generally generate wastes to a level requiring MOE authorization, though MoE can issue an order to prevent discharges to the environment when pollution occurs or is anticipated. Proponents are recommended to have Erosion and Sediment Control Plans in place.

2. Advanced Exploration

Includes bulk samples, trial cargoes, test shipments, and bedrock excavation for the purpose of underground development. See Section 65 of EMA for further detail on advanced exploration.

Authorization from MoE is required for waste being introduced into the environment from advanced exploration activities.

3. Development/Construction

Includes road building, logging, land clearing/grubbing, buildings and infrastructure (including surface water/sediment controls), and other activities that could generate sediment.

Authorization from MoE is required for waste being introduced into the environment from mine construction activities.

4. Producing Mine, and

5. Past Producing Mine (closure and post closure).

A site with a current *Mines Act* permit where minerals or coal are, or have been, produced. See Section 65 of EMA for more detail on producing/past-producing mines.

Authorization from MoE is required for waste discharge to the environment from producing and past producing mines.

Requirements in Parts 4 and 5 of EMA and in the Contaminated Sites Regulation may be applicable during the lifecycle of a mine and in particular during the construction, producing, and past-producing phases. Examples of requirements that may apply include submission of site profiles, issuance of notifications, and requirements associated with soil relocation and other remediation-related activities.

The provincial agencies involved vary in their levels of participation at each stage. MoE and MEM are typically the primary permitting agencies for most mine operations. These agencies work together to ensure environmental protection.

What other guidance documents are available?

It is recommended that the proponent contact the ministry's Mining Authorizations team early in the process when proposing an advanced exploration or mining project, and when planning for mine closure.

The proponent should review guidance documents available at:

<http://www2.gov.bc.ca/gov/content/environment/waste-management/industrial-waste/mining-smelting/guidance-documents>

particularly the [Joint Mines Act/Environmental Management Act Permit Application Information Requirements](#) and contact MoE if they have any questions.

Additional information the proponent should review includes:

- Protocols;
- Procedures;
- Policies;
- Technical Guidance; and
- Other information available from the Land Remediation Section of MoE.

These documents are available at:

<http://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources>

Who do I contact for further information?

Authorizations for mining under EMA are issued by the Environmental Protection Division (EPD) Mining Authorizations team.

Contact information for EPD Mining Authorizations is available at:

<http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/authorizations-contact>

Contact information for the Land Remediation Section of MoE is available at:

<http://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/contact-us>