



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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COMMISSIONER

Memorandum

To: Board of Environmental Protection
From: Jeffrey S. Crawford, Office of the Commissioner
Date: September 5, 2013
Re: Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining

BACKGROUND:

In 2011, the Maine Legislature passed Public Law 2011, Chapter 653, An Act to Improve Environmental Oversight and Streamline Permitting for Metallic Mineral Mining in Maine, which directed the Department to promulgate new rules intended to modernize Maine's mining requirements and reduce the number of separate environmental permits necessary for mining activities.¹

In addition to updating a number of mining-related laws, Public Law 2011, Chapter 653 established the Maine Metallic Mineral Mining Act (Mining Act) at 38 M.R.S. Section 490-II *et seq.* The Mining Act provides the statutory framework for metallic mineral mining activities, including but not limited to:

- Administration and enforcement, rules and local jurisdiction requirements;
- Mining permit application procedures;
- Mining permit duration, termination, revocation transfer and amendment procedures;
- Mining permit duration, termination, revocation, transfer and amendment procedures;
- Financial assurance requirements;
- Mining and reclamation reporting requirements; and

¹ Public Law 2011, Chapter 653 states: "By January 10, 2014, the Department of Environmental Protection shall provisionally adopt and submit to the Legislature for review rules related to the Maine Metallic Mineral Mining Act established pursuant to the Maine Revised Statutes, Title 38, chapter 3, subchapter 1, article 9. Rules adopted pursuant to this subsection are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A."

- Enforcement and violation provisions

The Department's proposal will repeal and replace the existing Chapter 200 regulations and provides a comprehensive application and permitting process within the statutory framework for exploration, advanced exploration and mining activities.

PROPOSED RULE FRAMEWORK

The Department's proposed rule establishes tiered requirements for exploration, advanced exploration and mining activities that reflect these activities potential impact on the environment and public health and safety. For example, mining activities are subject to more extensive requirements than exploration activities, which are limited in scope and less likely to pose significant environmental and public health risks.

— Exploration

Exploration activities are mining activities that are conducted to determine the location, extent and composition of metallic mineral deposits. Typically performed by hand sampling, test drilling or the digging of test pits, exploration activities are limited to no more than 300 square feet of surface disturbance, and do not require a permit. Instead, persons conducting exploration activities are required to submit an exploration workplan prepared by a qualified professional prior to initiating any activities at an exploration site, and meet a number of performance standards designed to protect natural resources and properly restore the exploration site. Persons conducting exploration activities are also required submit a closure report documenting that all restoration plan requirements have been completed.²

— Advanced Exploration

Advanced exploration activities involve more extensive sampling for the purpose of testing to determine the feasibility, method, or manner of extraction and or processing of metallic minerals, and have greater potential impacts on the environment and public health and safety. The Department's proposal bifurcates advanced exploration activities into two general permit categories, based on their potential environmental and public health and safety impacts. Tier One advanced exploration activities involve the excavation and removal of up to 1000 tons of material, while Tier Two advanced exploration activities may involve up to 5000 tons of excavated material.

Under an advanced exploration mining permit, the on-site processing of samples is limited to mechanical size alteration (crushing) and sorting; chemical or other treatment of ores is not allowed. All testing and characterization must take place in enclosed facilities, and all waste generated from on-site testing and characterization must be transported off-site for proper disposal.

Tier One advanced exploration activities, which typically involve larger scale trenching or blasting than permitted under an exploration workplan, require a permit from the Department. In addition to meeting the exploration work standards, persons conducting Tier One advanced

² The Department's proposal for exploration and advanced exploration activities mirrors the routine technical amendments to Chapter 200 that were adopted earlier this year.

exploration activities must also meet blasting standards, financial assurance requirements, and submit a reactive mine waste characterization plan that analyzes the potential for forming reactive mine wastes (e.g., acid rock drainage) and measures to monitor, limit and control any acid rock drainage or metal leaching.

Applicants for a Tier Two advanced exploration permit must also submit (in addition to the requirements for Tier One advanced exploration) a baseline site characterization report, an environmental impact assessment, interim and final closure plans, and plans for the management of excavation and processing waste.

--- Mining

Mining activities which involve the excavation of 5000 tons material or more are subject to a wide ranging suite of requirements. Since mining has the greatest potential impact on the environment and public health and safety, mining activities are subject to a more extensive review process, and must meet stringent performance standards. Some of the more notable requirements of the proposal include the application requirements (including public participation), financial assurance requirements, performance and design standards and monitoring requirements.

The Department's proposal establishes detailed application requirements for mining activities, ranging from the submission of a baseline characterization report that assess the pre-mining environmental conditions, to an environmental protection reclamation and closure plan. These submissions will provide the detailed environmental, engineering and financial information necessary for the Department and outside experts to thoroughly review a mining application.

In addition to the requirements in Chapter 2 of the Department's rules and the Maine Administrative Procedures Act, the Department's proposal includes public and local participation requirements for the preparation of the baseline site characterization plan, the environmental impact assessment, and notice of intent to file and application. Pursuant to statute, the Department will hold an adjudicatory hearing within the municipality or in a location convenient to a proposed mining operation no later than 180 days after the application is accepted as complete for processing and at least 30 days prior to the issuance of a draft permit decision. Finally, the Department's proposal provides financial assistance to assist municipal (or county) intervenors with their participation in the licensing process.

The Department's proposal also establishes a number of financial assurance and mining operation standards. Financial assurance is required of all mining (and advanced exploration) activities, and must be sufficient to administer all activities necessary for the reclamation, closure and remediation of any air surface or groundwater contamination at a mining site. Since the various forms of financial assurance have widely disparate levels of security, the Department's proposal requires the most secure form of financial assurance, a trust fund, for any mining activity with the potential to form acid rock drainage or release pollutants at concentrations exceeding the applicable water quality standards. Mining activities that do not have the potential to violate water quality standards may use additional forms of financial assurance such as a letter of credit or surety bond.

As required by statute, the proposal utilizes performance standards whenever appropriate to ensure protection of the environment and public health. In comparison to more specific design

standards, performance standards provide both the applicant and the Department with more flexibility in choosing the most appropriate approach to minimize and/or prevent environmental impacts. In other cases, most specifically the design of mine waste units, the Department is proposing a more prescriptive design standard to ensure that mine wastes are properly stored and will not result in nonattainment or noncompliance with water quality standards.

Finally, the Department's proposal also contains detailed groundwater and surface water monitoring requirements that are designed to detect direct and indirect discharges to both groundwater and surface water throughout the life of the mine from startup through closure; the Department can require a variety of corrective actions if a compliance standard is not met.

REQUESTED ACTION:

The Department is requesting the Board schedule the proposed rules to a public hearing on October 17, 2013.