06-096 Chapter 200: METALLIC MINERAL EXPLORATION, ADVANCED EXPLORATION AND MINING

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06-096 Chapter 200: METALLIC MINERAL EXPLORATION, ADVANCED EXPLORATION AND MINING

Subchapter 1: GENERAL PROVISIONS

1. Applicability.

A. To all portions of a mining operation established after the effective date of this Chapter.

B. Prohibition. No permit shall be issued under this Chapter to a mining operation that includes:

(1) Heap or percolation leaching.

(2) Mining for thorium or uranium ore.

(3) Mining in or under the waters of the state.

(4) Mining in or under coastal wetlands.

2. Definitions. As used in this Chapter, unless the context otherwise indicates, the following terms have the following meanings:

A. Acid Rock Drainage. "Acid rock drainage" means the drainage that occurs as a result of oxidation of sulfide minerals contained in rock which is exposed to air and water.

B. Act. "Act" means the Maine Metallic Mineral Mining Act at 38 M.R.S. § 490-LL et seq.

C. Administratively Complete. "Administratively complete" means an application for a mining permit under this Chapter that is determined by the Department to contain all of the documents and information required to initiate processing under this Chapter.

D. Advanced Exploration. "Advanced exploration" or "advanced exploration activity" means any metallic mineral bulk sampling or exploratory activity that exceeds those activities that are exploration activities, but remove 5000 tons or less of material. Samples taken as part of "exploration" are not considered bulk sampling.

E. Advanced Exploration Permit. "Advanced exploration permit" means a permit to conduct metallic mineral advanced exploration activities.

F. Advanced Exploration Site. "Advanced exploration site" means the area and facilities within which advanced exploration or activities incidental to it occur, or may reasonably be expected to occur.

G. **Adverse Impact or Adverse Effect.** "Adverse impact" or "adverse effect" to an associated existing attribute such as economic, employment, sociologic, environment, scenic character, natural resource, or public health and safety, means an unreasonable impact or effect on the associated attribute, as determined by the Department based on an evaluation of information that considers the value of the resource and the degree of impact or effect.

H. **Affected Area.** "Affected area" means an area outside of a mining area where the land surface, surface water, groundwater, air resources, soils, or existing uses are potentially affected by mining operations as determined through an environmental impact assessment.

I. **Applicant.** "Applicant" means any person who applies to the Department for a mining permit.

J. **Approved Suspension.** "Approved suspension" means a temporary suspension of mining issued pursuant to section 29 of this Chapter and approved in writing by the Department.

K. **Aquifer.** "Aquifer" means a geologic formation composed of rock or sand and gravel that stores and transmits significant quantities of recoverable water.

L. **Assurance Instrument.** "Assurance instrument" means a financial instrument executed in favor of the Department on a form approved by the Department and which is insured by an agency of the United States government or whose letter of credit operations are overseen or are regulated and examined by a federal or state agency.

M. **Baseline Conditions.** "Baseline conditions" or "baseline site conditions" means pre-mining conditions for a specific location and shall include, but not be limited to, characterization of the following resources: wildlife; surface water and groundwater quality and quantity; vegetation, including the presence or absence or rare, threatened or endangered species; and air quality.

N. **Beneficiation.** "Beneficiation" means the treatment of ore to liberate or concentrate its valuable constituents. "Beneficiation" includes, but is not limited to, crushing, grinding, washing, dissolution, crystallization, filtration, sorting, sizing, drying, sintering, pelletizing, briquetting, calcining, roasting in preparation for leaching to produce a final or intermediate product that does not undergo further beneficiation or processing, gravity concentration, magnetic separation, electrostatic separation, flotation, ion exchange, solvent extraction, electrowinning, precipitation, amalgamation, and dump, vat, tank and in situ leaching.

O. **Blasting.** "Blasting" means the use of explosives to break up or otherwise aid in the extraction or removal or a rock or other consolidated natural formation.

P. **Buffer.** "Buffer" means actions or structures used to separate, shield, screen, or lessen the effect of the mine operation on the surrounding area by reducing noise or dust, improving aesthetics, addressing stormwater, and protecting the public health, safety, and welfare.

Q. **Bulk Sampling.** "Bulk sampling" means the removal of samples for the purpose of testing to determine the feasibility, method, or manner of extraction and/or processing of metallic minerals. Such testing may include milling or grinding tests and/or pilot plant and processing tests. Methods of bulk sampling may include, but are not limited to, drilling and boring, digging of shafts and tunnels, or digging of pits and trenches. For purposes of this Chapter, bulk sampling of metallic mineral deposits is included in advanced exploration and is limited to the removal of no more than 5000 tons of material

R. **Closure.** "Closure" means activities undertaken to manage a mining area and, if necessary, an affected area, pursuant to an environmental protection, reclamation and closure plan approved by the Department. "Closure" includes, but is not limited to, actions taken to contain metallic mineral wastes on site and to ensure the integrity of waste management structures and the permanent securement of pits, shafts, and underground workings.

S. **Coastal Wetlands.** "Coastal wetlands" means all tidal and subtidal lands; all areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat, or other contiguous lowland that is subject to tidal action during the highest tide level for the year in which an activity is proposed, as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.

T. **Commencement of construction.** "Commencement of construction" means that a Permittee or other person has physically altered a mining area or proposed mining area, including but not limited to the clearing of trees and other vegetation, site preparation work, and the construction of roads and other infrastructure upgrades.

U. **Commissioner.** "Commissioner" means the Commissioner of the Maine Department of Environmental Protection.

V. **Containment Structure.** "Containment Structure" is an engineered structure or system designed to prevent the release of materials or substances from a designated area. Containment structures may be utilized to prevent releases from a variety of stored materials including, but not limited to: overburden, ore, tailings and hazardous substances. Hazardous substances must be stored in accordance with the federal Resource Conservation Recovery Act (RCRA) and state laws and regulations.

W. **Contamination.**

(1) As applied to groundwater, "contamination" means nonattainment of water quality standards, the cause of which is attributable to a mining operation, as:

(a) Specified in rules relating to primary drinking water standards adopted pursuant to 22 M.R.S. § 2611; or

(b) Demonstrated by a statistically significant change in measured parameters that indicates deterioration of water quality determined through assessment monitoring.

2) As applied to surface water, "contamination" means a condition created by any direct or indirect discharge that causes or contributes to nonattainment of applicable water quality or licensing standards under 38 M.R.S. § 414-A or 420. The nonattainment may be attributable to the mining operation either by itself of in combination with other discharges.

X. **Contemporaneous Reclamation.** "Contemporaneous reclamation" means mining in a manner that creates areas that can be reclaimed as soon after commencement of construction as practicable and continuously as practicable throughout the life of the operation.

Y. **Contingency Plan.** "Contingency plan" means the contingency plan required by subsection 9(K) of this Chapter for all permit applications and mining operations.

Z. **Corrective Action.** "Corrective action" means action taken by the Permittee to correct a violation or to meet a performance requirement in a mining permit or advanced exploration permit, or other applicable rule or law.

AA. **Cumulative Impact.** "Cumulative impact" means the environmental impacts that result from the proposed mining activities when added to other past, present, and reasonably foreseeable future activities.

BB. **Department.** "Department" means the Maine Department of Environmental Protection.

CC. **Designated Chemical Materials.** "Designated chemical materials" means toxic or acidic chemicals used within the mining area in extractive metallurgical processing, the use of which, at certain concentrations, represents a potential threat to human health, property or the environment.

DD. **Drilling.** "Drilling" means the making of holes with a drill for exploration of a metallic mineral deposit.

EE. **Drill Hole.** "Drill hole" means the cavity created by drilling.

FF. **Endangered or Threatened Species.** "Endangered or threatened species" means any species of fish or wildlife designated as endangered or threatened under 12 M.R.S. § 12803 or the federal Endangered Species Act.

GG. **Environmental Protection, Reclamation and Closure Plan.** "Environmental protection, reclamation and closure plan" means the environmental protection, reclamation and closure plan required by subsection 9(I) of this Chapter for all permit applications and mining operations.

HH. **Exploration.** "Exploration" or "exploration activity" means activities conducted in accordance with this Chapter for the purpose of determining the location, extent, and composition of metallic mineral deposits, test boring, test drilling, hand sampling, the digging of test pits, trenching or outcrop stripping for the removal of overburden having a maximum surface opening of 300 square feet per test pit or trench, or other test sampling methods determined by the Department to cause minimal disturbance of soil and vegetative cover.

II. **Exploration Site.** "Exploration site" means the area within which exploration or activities incidental thereto occur, or may reasonably be expected to occur.

JJ. **Financial Assurance.** "Financial assurance" means an assurance instrument or statement of financial responsibility provided by an Applicant or Permittee to ensure compliance with the Act, these rules, mining permit conditions, instructions, or orders of the Department.

KK. **Floodplain.** "Floodplain or floodplain wetland" means lands adjacent to a river, stream, or brook that are inundated with floodwater during a 100-year flood event and that under normal circumstances support a prevalence of wetland vegetation typically adapted for life in saturated soils.

LL. Groundwater. "Groundwater" means all the waters found beneath the surface of the earth which are contained within or under this State or any portion thereof, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the State.

MM. Groundwater Basin. "Groundwater basin" is the underground volume of an aquifer or aquifer system that is separated and defined by geologic or hydrologic boundaries.

NN. Group A Waste. "Group A waste" means a mine waste having net acid-producing potential or exhibiting a characteristic of hazardous waste as defined in 06-096 CMR 850.

OO. Group B Waste. "Group B waste" means a mine waste having no net acid-producing potential that may release soluble pollutants at concentrations which exceed performance requirements for groundwater or surface water.

PP. Group C Waste. "Group C waste" means a mine waste that does not have the potential to violate water quality standards other than sedimentation or turbidity.

QQ. Heap or Percolation Leaching. "Heap or percolation leaching" means a process used for the primary purpose of recovering metallic minerals in an outdoor environment from a stockpile of crushed or excavated ore by percolating water or a solution through the ore and collecting the leachate.

RR. Historic Site. "Historic site" means any site listed in the National Register of Historic Places or judged eligible for national register listing by the Maine Historic Preservation Commission.

SS. Intervenor. "Intervenor" means a person who, in accordance with the Maine Administrative Procedure Act, 5 M.R.S. §§ 9054(1) and (2), and Department rules governing hearings, has been granted leave to participate as a party in a license application or appeal proceeding where a decision has been made to hold a hearing.

TT. Lean Ore. "Lean ore" means rock containing metallic mineralization that is not profitable to process using technologies that exist at the mining operation.

UU. Life of Mine. "Life of mine" means the period from issuance of a mining permit through post-closure of the mine.

VV. Metallic Mineral. "Metallic mineral" means any ore or material to be excavated from the natural deposits on or in the earth for its metallic mineral content to be used for commercial or industrial purposes. "Metallic mineral" does not include ores of thorium or uranium.

WW. Metallic Mineral Operator. "Metallic mineral operator" means a Permittee or other person who is engaged in, or who is preparing to engage in, mining operations for metallic minerals, whether individually or jointly or through agents, employees or contractors.

XX. Metal Leaching. "Metal leaching" means the dissolution and removal of metals and metalloids as a result of chemical processes commonly associated with minerals containing sulphides.

YY. Metallic Product. "Metallic product" means a commercially salable mineral or metal produced primarily for its metallic mineral content in its final marketable form or state.

ZZ. Mine Plan. "Mine Plan" means all aspects of the plan to mine a site including siting, design, development, operation, reclamation, closure, post closure, and corrective action activities.

AAA. Mining. "Mining," "mining operation," or "mining activity" means activities, facilities or processes necessary for the extraction or removal of metallic minerals or overburden or for the preparation, washing, cleaning or other treatment of metallic minerals and includes the bulk sampling, advanced exploration, extraction or beneficiation of metallic minerals as well as waste storage and other stockpiles and reclamation activities, but does not include exploration.

BBB. Mining Area. "Mining area," or "metallic mineral mining area" means an area of land described in a permit application and approved by the Department, including, but not limited to, land from which earth material is removed in connection with mining, the lands on which material from that mining is stored or deposited, the lands on which beneficiating or treatment facilities, including groundwater and surface water management treatment systems, are located, or the lands on which water reservoirs used in a mining operation are located.

CCC. Mining Permit. "Mining permit" means a permit issued pursuant to 38 M.R.S.A § 490-LL *et seq.*, and this Chapter for conducting mining and reclamation operations.

DDD. Mine Waste. "Mine waste" means all waste materials (solid, semi-solid, or liquid) associated with exploration, advanced exploration, and mining activities. Such wastes include, but are not limited to, rock, tailings, and other process waste such as leachate and wastewater treatment plant residuals. Land clearing debris, wood waste, wastes from solvent extraction and electrowinning are not considered mine waste for purposes of this rule. Notwithstanding 06-096 CMR 850, mine waste is not hazardous waste to the extent mine waste has been excluded by Subchapter 3 of the Resource Conservation and Recovery Act, 42 CFR 6901, et seq.

EEE. Mine Waste Unit. "Mine waste unit" means any land area, structure, location, equipment, or combination thereof on or in which mine wastes are managed. A land area or structure shall not become a mine waste unit solely because it is used to store wastes generated on the site for 90 days or less.

FFF. Ore. "Ore" means rock containing metallic mineralization that is profitable to process using technologies that exist at the mining operation.

GGG. Overburden. "Overburden" means all of the earth and other materials which lie above the natural mineral deposits to be mined. Overburden does not include reactive wastes, lean ore, or other waste rock.

HHH. Passive Treatment System. "Passive treatment system" means the process of removing metals and/or acidity through the use of chemical, biological, and physical removal processes that occur naturally in the environment.

III. Permittee. "Permittee" means a person to whom a mining permit is issued.

JJJ. Perpetual Treatment. "Perpetual treatment' means treatment for more than 30 years post-closure.

KKK. Person. "Person" means an individual, firm, partnership, corporation, joint venture, municipality, state agency, federal agency, or other legal entity.

LLL. Post-closure Maintenance. "Post-closure maintenance" means an activity that may be required to sustain reclamation after cessation of a mining operation, as well as all activities undertaken at a closed mine waste unit, to maintain the integrity of containment features and to monitor compliance with applicable performance standards and permit conditions.

MMM. Post-closure Monitoring Period. "Post-closure monitoring period" means a period following closure during which a Permittee is required to conduct monitoring of groundwater and surface water and other monitoring as specified in a mining permit.

NNN. Probable Maximum Flood. "Probable maximum flood" means the largest flood that may reasonably be expected to occur at a given point on a stream from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible on a particular watershed. This term identifies estimates of hypothetical flood characteristics (peak discharge, volume, and hydrograph shape) that are considered to be the most severe that are reasonably possible at a particular location, based on comprehensive hydrometeorological analyses of critical runoff-producing precipitation (and snowmelt, if pertinent) and hydrologic factors favorable for maximum flood runoff.

OOO. Protected Location. The locations described in 06-096 CMR 375(10)(G)(16) constitute protected locations.

PPP. Qualified Professional. "Qualified professional" or "qualified person" means a scientist, engineer, or professional in a technical discipline with sufficient training and experience to enable the individual to make sound professional judgments regarding conducting technical analyses or regarding the design, construction, and operation of regulated units and ancillary structures who, if accreditation is the norm in the profession, is accredited in the State of Maine, or subject to review and approval by the Department, is accredited in another jurisdiction.

QQQ. Reactive Mine Material. "Reactive mine material" means any natural geologic formation or mined material that, when exposed to air and water, may develop acid rock drainage, or any other natural geologic or mined material that is shown through characterization studies to release substances that may adversely impact natural resources and the environment.

RRR. Reclamation. "Reclamation" or "reclamation operation" means the rehabilitation of the mining area, affected area and any other area of land or water body affected by mining under an environmental protection, reclamation and closure plan approved by the Department. "Reclamation" includes, but is not limited to, stabilization of slopes, creation of safety benches, planting of forests, seeding of grasses and legumes for grazing purposes, planting of crops for harvest and enhancement of wildlife and aquatic resources.

SSS. Responsible Officer. "Responsible officer" means:

(1) A person holding a principal executive position in a corporation as established by the charter or by-laws of the corporation;

(2) A general partner or the proprietor, as appropriate, of a partnership or sole proprietorship; or

(3) A principal executive officer or ranking elected official of a municipal, state, federal, or other public agency.

TTT. Storage Pile. "Storage pile" or "mine waste unit" means a manmade landform used for the disposal or storage of material generated during mining, such as overburden, waste rock, lean ore, ore, tailings, or topsoil.

UUU. Statistically Significant Change. "Statistically significant change" is a change that is likely the result of causes other than random variation as determined by statistical testing methodologies.

VVV. Surface Water Resources. "Surface water resources" are coastal and freshwater wetlands, great ponds, rivers, streams and brooks as defined in 38 M.R.S. § 480-B.

WWW. Tailings. "Tailings" means those portions of a metallic mineral deposit remaining after extraction of minerals by physical or chemical means. For the purpose of this Chapter, "tailings" are reactive mine material.

XXX. Tailings Impoundment. "Tailings impoundment" means land on which is deposited, by hydraulic or other means, material that is separated from the metallic product in the beneficiation or treatment of minerals, including any surrounding dikes constructed to contain the material.

YYY. Topsoil. "Topsoil" means the material at the earth's surface which has been so modified and acted upon by physical, chemical and biological agents that it will support rooted plants necessary to achieve reclamation goals.

ZZZ. Underground Mine Openings. "Underground mine openings" or "mine openings" means all openings and voids in the earth created in the process of mining, during development, or operation of the site. "Underground mine openings" do not include drilling or drill holes used solely for exploration.

AAAA. Upper and Lower Predictive Limits. "Upper and lower predictive limits" are the statistically determined bounds of the prediction interval which is an estimate of an interval where future observations will fall.

BBBB. Visual Resources. "Visual resources" means the composite of basic terrain, geologic features, hydrologic features, vegetative patterns, and land use effects that make up the scenic character of the site and the area surrounding the site, especially as viewed from a protected natural resource.

CCCC. Waste Rock. "Waste rock" means rock material removed to access the ore body that may or may not contain metallic mineralization, but that is in either case, not profitable to process using known technologies.

DDDD. Watershed. "Watershed" means the land that drains, via overland flow, drainageways, waterbodies, or wetlands to a given waterbody or wetland

EEEE. Waters of the State. "Waters of the State" means any and all surface and subsurface waters that are contained within, flow through, or under, or border upon this State, or any portion of the State, including the marginal and high seas, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other

waters of the State, but not excluding waters susceptible to use in interstate or foreign commerce, or whose use, degradation or destruction would affect interstate or foreign commerce.

FFFF. Wellhead Protection Area. "Wellhead protection area" means a specific geographic area which is approved by the Department, and if applicable, the Department of Health and Human Services, as the surface and subsurface area surrounding a water well or well field that supplies a public water system and through which contaminants are reasonably likely to move toward and reach the water well or well field.

3. Prohibitions

A. It shall be unlawful for any person engage in any exploration or mining activity, or initiate the construction of such, except as authorized pursuant to this Chapter

NOTE: Qualified exploration activities conducted pursuant to the standards established in section 7 of this Chapter do not require a permit.

B. The Department may not approve a permit for a proposed metallic mineral mining project in an unorganized territory unless the Maine Land Use Planning Commission certifies to the Department that:

(1) The proposed mining project is an allowed use within the subdistrict or subdistricts in which the project is located; and

(2) The proposed mining project meets any land use standard established by the Maine Land Use Planning Commission.

C. The Department may not authorize a discharge of pollutants to waters of the United States under this Chapter.

D. No chemical or oil products or waste shall be discharged, mixed, or released onto, into, or under the ground or waters of the state. This prohibition includes, but is not limited to discharges from onsite wastewater treatment plants, mine pits or tunnels, or beneficiation units. All chemicals and oils shall be managed so as to prevent their release and mishandling, including compliance with all applicable management rules and laws. Chemicals utilized for their intended purpose as a part of the wastewater treatment process or beneficiation process may be utilized only when identified in the permit application, documented as chemicals being used in appropriate quantities, and used solely for their intended purpose and not as a means of disposal.

E. Waste rock shall not be used for roads or any other construction purpose.

4. Relation to Other Rules. Compliance with the provisions of this Chapter, the permit to mine, and the Act does not:

A. Relieve a Permittee of the obligation to comply with all other applicable state, federal, or local statutes, regulations, or ordinances, including but not limited to the regulations for air emissions, waste discharges, solid and hazardous waste management, underground oil storage facilities, oil discharge pollution prevention measures and facilities, and waste oil;

B. Prevent a municipality from regulating or controlling mining or reclamation activities; and

C. Prevent a municipality from regulating the routes, hours, and weights of transportation of ore, rock, tailings, and other mining-related materials on public streets and roads in order to protect the public health, safety, and welfare.

Subchapter 2: EXPLORATION AND ADVANCED EXPLORATION

5. **Purpose of Exploration and Advanced Exploration Requirements.** The purpose of this subchapter is to establish procedures and standards for exploration and advanced exploration activities.

6. **Applicability of Exploration and Advanced Exploration Requirements.** This subchapter applies to any person proposing to conduct or engaging in exploration or advanced exploration activities.

7. **Exploration Activities.** A permit is not required for exploration under this section, however, the submittal of an exploration work plan is required by the Department prior to initiating any activities at an exploration site. The exploration work plan must contain the submission requirements listed in subsection 7(C) of this Chapter.

NOTE: Geophysical surveys are considered exploration for the purposes of this Chapter and the submissions and standards under section 7 of this Chapter if they involve some disturbance of soil or vegetation, such as cutting or clearing of vegetation along a survey grid. Non-intrusive methods, such as aeromagnetic surveys or other remote-sensing methods that do not involve any disturbance of soil or vegetation are not considered exploration for the purposes of this Chapter. The submission of an exploration work plan is not required for hand sampling activities (soil sampling with auger or shovel, stream sediment sampling and rock chip sampling); however, these activities may require approval under other laws and regulations administered by the Department (e.g., the Natural Resource Protection Act 38 M.R.S. § 480-C).

A. **Other Applicable Permit Requirements.** Depending upon the location, type and extent of activity, a permit may be required under other rules or statutes of the Department, the Maine Land Use Planning Commission, and the Maine Geological Survey. Persons seeking to conduct exploration activities should check with the appropriate agencies to determine applicable requirements. Requirements for exploration activities may include, but are not limited to, the following:

(1) Bureau of Geology and Natural Areas Registration. See Mining on State Lands, 12 M.R.S. §549, *et seq.*

(2) Natural Resources Protection Act Permit. See Natural Resources Protection Act, 38 M.R.S. §480A, *et seq.*; and

(3) Maine Land Use Planning Commission Permits or Zoning Changes. See Land Use Districts and Standards, 04-061 CMR 10.

B. **Standards.** The following minimum standards must be met for exploration activities:

(1) Access ways shall involve little or no recontouring of the land or ditching, and shall not include the addition of gravel or other surfacing materials. Clearing of the vegetative cover shall be limited to the minimum necessary to allow for the movement of equipment.

(2) Access way approaches to stream channels shall be located and designed so as to divert water runoff from the way in order to prevent such runoff from directly entering the stream. With the exception of crossings, an undisturbed buffer strip of at least seventy five (75) feet must be maintained between access ways and streams.

(3) Erosion control measures must be implemented to prevent unreasonable erosion of soil or sediment beyond the exploration site or into a protected natural resource as defined in 38 M.R.S. § 480-B; these measures must be in place before exploration activity, or related activities including, but not limited to, clearing and road construction, begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken and the site must be maintained to prevent unreasonable erosion and sedimentation.

(4) Except when surface waters are frozen, access ways for exploration activities shall not utilize stream channels bordered by or within Land Use Planning Commission P-SL2 Protection Subdistricts except to cross the same by the shortest possible route. Unless culverts or bridges are installed in accordance with 04-061 CMR 10(17)(A)(4)(b) and (d), such crossings shall only use channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged. For stream crossing standards in organized areas, a permit under the Natural Resources Protection Act may be required. See 38 M.R.S. §480-C and the Department's Permit by Rule Standards, 06-096 CMR 305(10).

(5) A Natural Resources Protection Act permit may be required for activities involving the disturbance of soil adjacent to a wetland or water body. See Natural Resources Protection Act 38 M.R.S. §480-C and the Department's Permit by Rule Standards, 06-096 CMR 305(2).

NOTE: For some activities in, on, over or adjacent to a wetland or waterbody, a permit under the Natural Resources Protection Act may be required. See 38 M.R.S. § 480-B and the Department's Wetlands and Waterbodies Protection rule, 06-096 CMR 310.

(6) Soil which is stripped or removed must be stockpiled for use in reclaiming disturbed land areas. Soil stockpiles shall be seeded, mulched, and anchored or otherwise stabilized.

(7) The exploration site shall be restored to a physical state that is similar to and compatible with that which existed prior to any exploration. Within 30 working days following completion of exploration at an exploration site, any person conducting exploration activities shall accomplish the following:

(a) Disposal of all debris in accordance with applicable state laws and regulations;

(b) Grading of the surface of the site so that the final graded slope conforms with the original contour of the land; and

(c) Placement of topsoil and reseeding and stabilization of graded topsoil with vegetation native to the area. Any person conducting exploration activities shall follow the "Guidelines for Soil Stabilization," 04-061 CMR 10, Appendix B.

(8) Within 30 working days after completion of exploration, all excavations including trenches, test pits, and mud pits shall be capped, refilled or secured. All settling ponds or sumps must be backfilled, covered with topsoil, and seeded.

(9) Drill pump stations must be located at least 25 feet from a river, stream, brook, or great pond or an area of open water of one-half acre or more within a freshwater wetland.

(10) Except for samples collected for exploration purposes, all drilling mud, water, and other fluids, as well as waste cuttings must be confined to the drill site by the use of storage tanks or sumps. All excavation sites and resulting waste must be managed to ensure no untreated water is released to the environment and released volumes will not adversely impact existing stream flows.

NOTE: Any discharges to the Waters of the State require a permit pursuant to 38 M.R.S. 413.

(11) No bulk sampling may take place under an exploration work plan.

(12) Sealing of all drill holes, whether temporary or permanent, shall be completed within 30 days of cessation of drilling or testing activities such as "down-the-hole" geophysical surveys or other similar activities. All artesian wells shall be capped or sealed within 48 hours after cessation of drilling or the onset of artesian conditions. No drill hole may be temporarily sealed for more than 3 years unless the drill hole is being used during the time it is temporarily sealed for sampling or other studies related to a mineral deposit or general hydrological conditions of the area. A drill hole that has remained temporarily sealed for more than 3 years and is not being used for sampling or other studies shall be sealed permanently. All sealing activities will be conducted according to the "Guidance for Well and Boring Abandonment," produced by the Department's Bureau of Remediation and Waste Management, Division of Technical Services, dated January 7, 2009.

(a) Within 30 working days after permanent sealing of the final drill hole of a drill program, any person conducting exploration activities shall submit to the Department a report including, but not limited to, the following information for each drill hole:

(i) Location and identification of the drill hole;

(ii) Dimensions of the drill hole;

(iii) Identification of depth, static elevation, and estimated flow of any groundwater encountered, if known; and

(iv) Methods of sealing the drill hole, demonstrating compliance with subsection 7(B)(12) above.

(13) All facilities and equipment shall be promptly removed from the exploration site when they are no longer needed for exploration; except for those facilities and equipment which the Department has determined may remain on-site in order to:

(a) Provide additional environmental quality data;

(b) Detect, reduce or control the onsite or offsite effects of the exploration activities; or

(c) Facilitate future surface mining and restoration operations by the person conducting the exploration, under a work plan described in (C) below.

(14) The Department may enter any exploration site, take samples, and conduct tests in order to determine compliance with any provision of this Chapter or other applicable requirements. The Department may require the submission of annual self-inspection reports, signed by a qualified professional, on exploration activities conducted by the Permittee.

(15) Any person conducting exploration activities shall notify the Department and/or the Land Use Planning Commission orally within 24 hours and in writing within 5 working days of any activity or occurrence during the course of exploration or reclamation which has the potential to damage public health or the environment.

(16) Beneficiation is prohibited under an exploration work plan.

C. Submission Requirements.

(1) At least 30 days prior to the commencement of any exploration activities, an exploration work plan shall be submitted to the Department on forms provided by the Department, prepared and signed by qualified professional, which provides the following information, at a minimum:

(a) Documentation of the property boundaries, landowner information, and description of the area to be explored;

(b) Evidence of the applicant's title, right, or interest in the pertinent property for access to the area to be explored and to conduct exploration activities and restoration;

(c) A site plan showing the proposed access routes and exploration areas;

(d) Identification of any proposed new roads or clearings;

(e) A site plan with wetlands or other protected natural resources as defined under the Natural Resources Protection Act and other sensitive environmental features identified;

(f) A sediment and erosion control plan, including a stormwater management plan consistent with the Department's standards for stormwater management for access roads, excavation and stockpile areas, and other areas affected by the activity;

(g) A description of proposed drilling and excavation activities and methods, including petroleum products and chemical handling procedures and spill management, estimated quantities of material that must be removed to obtain samples, and best management practices to be employed in conducting the exploration activities. If specified by the Department, additional measures to protect the environment shall be adopted by the person engaged in exploration activities;

(h) A plan for backfill and restoration of exploration sites which will address subsidence, drill holes, structural safety, water management, restoration of disturbed areas including access roads, and the abatement of any physical hazards; and

(i) A plan showing the exploration drilling area, maximum number of drill holes, and the maximum total drilling footage.

(2) Within 60 days of the completion of the exploration activities the Applicant shall submit a report, prepared and signed by a qualified professional documenting that all of the requirements of the restoration plan were completed.

8. **Advanced Exploration Activities.** A person may not engage in advanced exploration without an advanced exploration permit issued by the Department pursuant to 38 M.R.S. § 490-OO. Advanced exploration activity permits are divided into two categories: Tier One and Tier Two. Under a Tier One approval, bulk sampling may not exceed one thousand tons of material. Under a Tier Two approval, bulk sampling may not exceed five thousand tons of material. Under an advanced exploration permit, on-site processing of bulk samples is limited to mechanical size alteration and sorting. Any additional testing and characterization must occur within enclosed, portable facilities. Any waste generated from this additional on-site testing and characterization must be transported off-site for disposal.

A. **General Standards and Requirements.** Applications for all advanced exploration activities must demonstrate compliance with the standards for exploration listed under subsection 7(B) of this Chapter. Tier One advanced exploration activities must also meet the requirements of subsection 8(C), and Tier Two advanced exploration activities must also meet the requirements subsection 8(D) of this Chapter and the criteria for approval of mining activities in 38 M.R.S. § 490-OO(4), together with any additional site-specific conditions required under the advanced exploration permit.

(1) The Department may enter any advanced exploration site, take samples, and conduct tests in order to determine compliance with any provision of this Chapter or other applicable requirements.

(2) The Department may require the submission of quarterly self-inspection reports, signed by a professional engineer or geologist licensed in the State of Maine, or, subject to review and approval by the Department, such a professional accredited in some other jurisdiction, on the advanced exploration activities conducted by the Permittee.

B. **Submission Requirements.** Applications for advanced exploration activities must comply with section 9 of this Chapter. A pre-application meeting is required prior to submission to the Department of a new application for any advanced exploration activity pursuant to this Chapter. The Applicant must meet the requirements in section 10 of Rules Concerning the Processing of Applications, 06-096 CMR 2. A pre-submission meeting is required unless waived as provided in 06-096 CMR 2(10)(D).

C. **Tier One Advanced Exploration Activities.** To qualify for Tier One advanced exploration approval, exploration activities may exceed those permitted under section 7, "Exploration," of this Chapter, but bulk sampling shall not remove in excess of 1000 tons of material from the exploration site for mineral testing or extraction. These activities may include: larger scale trenching or blasting than permitted under "Exploration" (i.e., greater than 300 sq. ft. for each test pit, trench or outcrop stripping site) but no more than one acre in total area in the area of exploration; road building/reconstruction; and temporary camp construction. Baseline monitoring or environmental assessment pursuant to section 9 of this Chapter is not required to obtain approval under Tier One for advanced exploration, but the Department may require water quality monitoring or other monitoring and sampling as described in paragraph (2) below.

(1) Prior to commencement of any Tier One advanced exploration activities, an application shall be submitted for review and approval on forms provided by the Department. This application

shall provide all information required by subsection 8(C) of this Chapter, evidence of the applicant's mining experience as it relates to advanced exploration activities, any submissions required under 38 M.R.S. §490-OO(2) and evidence to demonstrate that the proposed activity meets the standards set forth in 38 M.R.S. §490-OO (4) and those listed as applicable under subsections 8(A) and 8(C)(1).

(2) Standards. The standards for approval of Tier One advanced exploration activities include the minimum exploration standards listed under subsection 7(B) and the blasting standards in subsection 20(K) of this Chapter in addition to the standards listed in 8(A). The Applicant must also demonstrate and maintain financial assurance in accordance with the requirements of 38 M.R.S. § 490-RR.

(3) Submission Requirements. The Applicant shall submit with its application information to demonstrate that all applicable standards are met. The Applicant shall also submit with its application a reactive mine material characterization work plan that includes the information required by subsection 20(E) of this Chapter. The plan must include, if determined to be necessary by the Department, measures to prevent or minimize adverse impacts on the environment, including, but not limited to control and monitoring of acid rock drainage, of metal leaching, and of areas impacted or potentially impacted by acid rock drainage.

D. Tier Two Advanced Exploration Activities. To qualify for Tier Two advanced exploration approval, activities may exceed those permitted under Tier One advanced exploration activities and may include underground exploration tunnels, shaft sinking, and excavation work that disturbs more than one acre in area (which may involve multiple sites within the identified area of exploration) but not more than a total of three acres in area or a total five percent of the advanced exploration site, whichever is less. Bulk sampling shall not remove in excess of 5000 tons of material from the advanced exploration site for mineral testing or extraction. Before advanced exploration activities exceed the threshold described above a mining permit is required.

(1) Submission Requirements. Prior to commencement of any Tier Two advanced exploration activities, an application shall be submitted for review and approval on forms provided by the Department that provides all information necessary and evidence to demonstrate that the proposed activity meets the standards set forth in 38 M.R.S. §490-OO (4) and those listed as applicable under subsections 8(A), 7(C) and 8(C) of this Chapter, plus the following additional submissions:

(a) Interim and final closure plan;

(b) Reactive mine material characterization work plan as described in subsection 20(E) of this Chapter;

(c) Baseline site characterization work plan, described in subsection 9(C) of this Chapter;

(d) Environmental impact assessment, described in subsection 9(G) of this Chapter; and

(e) Plans and other relevant information describing infrastructure for proper management of excavation waste and processing waste.

(2) Standards. The standards for approval of Tier Two advanced exploration activities include the standards listed in 38 M.R.S. §490-OO(4), the minimum exploration standards listed under subsection 7(B) of this Chapter, the general standards listed in subsection 8(A), and the Tier

One advanced exploration standards listed in subsection 8(C) of this Chapter, together with any additional site-specific conditions required under the Tier Two advanced exploration permit. The Applicant shall also maintain financial assurance in accordance with the requirements of 38 M.R.S.A § 490-RR.

Subchapter 3: PERMITS

9. Application Requirements

A. Pre-application Meeting

(1) Prior to preparing an application for a permit to mine, the Applicant shall meet with the Department for a pre-application meeting and a site visit. The purpose of the pre-application meeting, as set forth in Chapter 2(10) of the Department's rules, is to help the Applicant understand the application process, to exchange information, to discuss the application fee, and to review the proposed metallic mineral mining and reclamation operation, and for the Department to provide direction on the process for preparing an application for a permit to mine.

(a) The Applicant shall provide the Department the following information prior to the pre-application meeting:

(i) Identities and contact information of the persons associated with the proposed mine, including landowners, lessees, the Applicant, and other associated persons;

(ii) Location, including a legal description of town or township, range, section, and depiction of the metallic mineral mining area and affected area on a diagram;

(iii) Evidence of title, right, or interest in all of the property that is proposed for development or use;

(iv) A general description of natural features including physical, geographic, hydrologic, biologic, and infrastructure description of the proposed mine and affected area including administrative features such as land use, zoning, surface and mineral ownership, and areas of special environmental designation;

(v) A description of geologic resources, including:

(A) Geologic map indicating known stratigraphy, structure, and fault systems with appropriate cross-sections;

(B) Narrative of geologic history;

(C) Discussion of the metallic mineral deposit including mineralogic and chemical nature of the ore and waste rock;

(D) Geologic stability of the affected area including regional seismicity, known landslides, and fault systems; and

(E) Unique geologic features;

(vi) A description of the target mineral deposit, based on existing exploration data;

(vii) A conceptual advanced exploration plan, if necessary, and a metallic mineral mining, beneficiation, and reclamation plan;

(viii) A conceptual mine material, waste and designated chemical materials characterization work plan that meets the requirements of subsection 20(E) of this Chapter; and

(ix) A conceptual baseline characterization work plan that addresses at a minimum the requirements of subsection 9(C) of this Chapter.

(b) At the pre-application meeting the Department will provide an overview of:

(i) The Act, the rules and the permit application process;

(ii) The fees for metallic mineral mining and the maximum fee for processing an application;

(iii) The relationship of the Act and rules to other laws and regulations; and

(iv) The submittal, review, and decision process for the submissions required pursuant to subsections 9(A)(1)(a)(vii),(viii) and (ix), above.

(2) Public Information Meeting. A public information meeting is also required pursuant to 06-096 CMR 2.

B. Application Contents. The Applicant shall provide all submissions the Department determines are necessary to evaluate the application under the criteria for a permit under the applicable laws and rules. The applicant shall prepare and submit to the Department an application for a permit to mine, which shall at a minimum contain:

(1) Applicant Information. Information about the Applicant and the proposed activity must be provided including, but not limited to, the following:

(a) The name, mailing address, and phone number of the Applicant and principal representative of the applicant;

(b) The general organizational structure of the applicant, any parent companies, owners, principal stockholders, partners, and joint ventures;

(c) Any managing agents or subsidiaries which are or may be involved in the proposed activity;

(d) Organizational and legal relationships between or among joint applicants;

(e) The applicant's registered agent for service of process in the State;

(f) Evidence of the applicant's ability to undertake the proposed activity, including:

(i) A statement of the applicant's prior experience and/or training as it relates to the proposed activity;

(ii) The names and qualifications of all key personnel who will be involved with site preparation, extraction, beneficiation, reclamation, closure, and post-closure maintenance;

(g) A summary of the applicant's and its responsible officers' and related corporations' record of compliance with environmental and land use laws and financial requirements of Maine and other jurisdictions, as follows:

(i) A list and explanation of any felony convictions, any criminal convictions of environmental and land use laws, and any civil violations of environmental or land use laws administered by the Department, the State, other states, the United States, or another country, in the 10 years immediately preceding the filing of the application; and

(ii) A list and explanation of administrative consent agreements or consent decrees entered into by the Applicant or related persons which include or pertain to alleged violations of environmental or land use laws administered by the Department, the State, other states, the United States or another country, in the 10 years immediately preceding the filing of the application; and

(h) Documentation of requirements relating to financial assurance required under subchapter 5 of this Chapter is achieved to the Department's satisfaction including proof of a public liability insurance policy in force for the mining operation or evidence that the Applicant has satisfied other state and federal self-insurance requirements to provide personal injury and property damage protection in an amount adequate to compensate persons who might be damaged as a result of the mining operation or any reclamation or restoration connected with the operation.

(2) Location. The location of the proposed activity must be provided including, but not limited to, the following:

(a) The location of the proposed site, including the municipality or township, and county;

(b) A legal description of the proposed site;

(c) Whether or not the proposed site is within the jurisdiction of the Land Use Planning Commission, and if so, the land use district(s) encompassing the site; and

(d) The names and addresses of abutting property owners.

(3) Evidence of Legal Authority. Evidence of legal authority to conduct business in the United States and the State of Maine must be provided in the form of the Information Summary sheet from the Division of Corporations, UCC and Commissions for the applicant.

(4) Other Permits. A list must be provided of all other federal, state, and local permits, licenses, and approvals required for the proposed activity, including the status of such permits, licenses, and approvals or applications for such approvals that are pending.

(5) Mining Experience. A list must be provided of all mines controlled or operated by the applicant, parent companies, subsidiaries, predecessors, or related persons, in the United States and abroad. This list shall include mine site addresses, nature and duration of affiliation with the site, a brief description of each mine, and the compliance record with regard to applicable mining permits, authorizations, rules, and laws of the applicable jurisdiction.

(6) Reactive Mine Material Report. The Applicant shall submit with its application a reactive mine material report that includes the information required by subsection 20(E) of this Chapter consisting of all test data concerning waste analysis for each type of mine material, waste and designated chemical material, the testing program objective together with an interpretation of the results, and options for the control of acid generation, and metal leaching.

C. **Baseline Site Characterization Report.** A baseline site characterization report shall be included as part of the application. This report must define existing conditions within the proposed mining area and affected area prior to commencement of the proposed activity. Baseline studies must provide sufficient data to allow qualitative and quantitative analysis of the study areas under a work plan approved by the Department. The baseline report shall describe methods used for acquiring data, sampling locations, sampling frequency, analytical methods, a timetable for data collection, and a quality assurance (QA) project plan. Preparation of an environmental impact assessment report must include the public participation requirements described in section 10 of this Chapter. The use of pre-existing data may be allowed subject to prior review and approval by the Department. All pre-existing data shall be clearly marked "pre-existing data" within the baseline plan. The Applicant shall discuss the manner and time in which the data were acquired, the analytical or investigative methods used and any other factors relevant to the quality and applicability of the data. The Department shall accept or reject the use of pre-existing data prior to the acceptance of the baseline plan. All pre-existing data must be supplemented with new data collected within the mining area and affected area. The proposed baseline site characterization report must include, if required by the Department, each of the following:

(1) Documentation of aquatic and terrestrial flora and fauna species presence, distribution and abundance including the existence of endangered or threatened species and significant wildlife habitats and may include analyses of fish tissue, fish population, invertebrate population and abundance, and any other measure of ecological health the Department deems necessary to gauge potential impacts.

(2) A water balance of the metallic mineral mining and affected area including, but not limited to, consideration of precipitation, evapotranspiration, infiltration, runoff, surface and groundwater flow, hydraulic gradients, velocity, flow paths, and elevations, and groundwater/surface water interactions;

(3) An ambient water quality monitoring plan and monitoring results that provide baseline water quality information for any surface or ground water that potentially may be impacted as a result of the mining activity;

(4) Documentation of groundwater and surface water quality that includes at least two years baseline data, to generate the information necessary to:

(a) Determine upper and lower predictive limits, with 95% level of confidence, for baseline physical hydrologic conditions (water levels, stream stage, and discharge) at each monitoring location, for each parameter and for each hydrologic season. Storm frequency, intensity and flow/volume analyses shall be conducted for 2, 10, 25, 100 and 500-year storms;

(b) Provide a basis to evaluate future operational, reclamation, corrective action, closure and post-closure monitoring data for the presence of a statistically significant change from baseline conditions;

(c) Characterize baseline water quality and sediment in streams, ponds and wetlands for parameters representative of mine materials, wastes, and designated chemical materials, and associated reaction and transformation products that present a potential risk of release during metallic mineral mining;

(d) Characterize baseline water quality and sediment in streams, ponds and wetlands for parameters that likely serve as general indicators of baseline conditions; and

(e) Provide a groundwater flow numerical model for baseline, operational and post closure conditions that will be used for determining potential hydrogeological impact.

(5) Documentation of baseline climatological and meteorological conditions including temperature, precipitation, precipitation forms, wind speed, wind direction, solar radiation, relative humidity, barometric pressure, atmospheric gas composition, and atmospheric dust;

(6) Documentation of all watersheds, groundwater basins and aquifers, and an inventory of wells, springs and seeps within mining area and affected area;

(7) A study documenting soils and other surficial deposits present, including descriptions of type, extent, thickness, and physical and chemical properties; and

(8) Documentation of cultural, historic and scenic resources.

D. Mining Plan. A mining plan shall be included as part of the application. The mining plan shall provide a detailed metallic mineral mining feasibility study including, but not limited to, designs, plans and specifications, analyses, and schedules along with supporting data and information, as applicable, of the following:

(1) Type and method of metallic mineral mining proposed, and the expected operating life of the mine, including a mining and production schedule;

(2) Area, volume, type, and mineralogy of ore to be excavated, and schedule of metallic mineral mining and stockpiling of ore;

(3) Area, volume, and characteristics of topsoil, overburden, lean ore, ore, waste rock, and development rock to be excavated, including plans and schedules for excavating, segregating, processing, storing, and stabilizing these materials. All materials must be characterized according to their potential to generate acid rock drainage or otherwise discharge contaminants to the environment, and plans for excavation, segregation, processing, storage

and stabilization of each type of material must specifically address the nature of the material identified by this characterization;

(4) Locations, designs, schedules of development, proposed use, and dimensions of stockpiles;

(5) Location, extent, depth, dimensions, and elevation contours of pits, of planned caving and subsidence of underground mine openings and workings, shafts, portals, and other openings to the land surface, including a schedule of development;

(6) Locations, dimensions, and proposed use of buildings, facilities, and structures including those used for storage and transfer of chemicals, and location, dimensions, and proposed use of fuel and explosives storage, washdown, and maintenance areas;

(7) Transportation plan, including off-site ore concentrate or metallic product hauling;

(8) Plan for providing necessary general infrastructure requirements to the mining operation including electrical power requirements, water, wastewater, and general solid waste disposal, and access roads for transportation of equipment, materials and labor required for the mining and restoration operation. This plan shall include details on the addition of the mining operation to existing civil infrastructures within the metallic mineral mining and affected area;

(9) Beneficiation plan describing type, methods, extent and sequences, as well as associated materials, reagents, wastes, products, equipment, and processes;

(10) Tailings management plan, including a description of the quantity, disposal method, location, sequence, and schedule;

(11) Water management plan for storm water, surface water, groundwater, potable water, and process water describing:

(a) Withdrawal sources, quantities, rates, and duration of use;

(b) Expected hydrologic impacts on water supply sources, groundwater, and wetlands and other surface water resources;

(c) Purpose, location, size, capacities, design, operating procedures of all ponds, impoundments, dewatering systems, diversions, and other water control structures and treatment facilities;

(d) Location and estimated volumes, rates, quality, and duration of discharges;

(e) Anticipated wastewater treatment methodology, design and procedures; and

NOTE: For some activities in, on, over or adjacent to a wetland or waterbody, a permit under the Natural Resources Protection Act may be required. See 38 M.R.S. § 480-B and the Department's Wetlands and Waterbodies Protection rule, 06-096 CMR 310. Any discharge to the Waters of the State requires a permit pursuant to 38 M.R.S. 413.

(12) Waste management plan including descriptions by waste stream type, source, anticipated volumes, characteristics, provisions for minimization, treatment, on-site storage, containment, management, transportation, and disposal endpoints. Waste management plans shall not include perpetual treatment methodologies.

E. **Engineering Report.** An engineering report shall be included as part of the application. The engineering report for the mine facility must present the basis for the engineering design and the proposed construction procedures. The engineering report must discuss site-specific factors considered during design and address design selection for engineered structures. The report must also include a narrative evaluating the potential modes and significance of failures in engineered systems. All calculations and assumptions used in the evaluation and design of the proposed facility must be submitted. Engineering designs, reports, plans and other technical engineering documents must be signed by a qualified professional.

F. **Quality Assurance Plan (QAP).** A QAP must be established and included as part of the application to assure that design specifications and performance requirements for all mining operation are met during construction. The QAP must include, but is not limited to, the following:

(1) A description of the Construction Quality Assurance (CQA) measures to be implemented;

(2) A description of the relationship between the QAP, construction quality control, and the construction contract bid documents. The construction contract bid documents must also clearly define this relationship;

(3) A description of the extent and scope of the responsibility and authority of organizations and/or personnel involved in permitting, designing, constructing, and certifying construction of the mining operation. This must also include a description of a construction problem resolution process that incorporates the roles and responsibilities of all parties, including the Applicant /Permittee, CQA personnel, contractors, and the Department.

(4) The required qualifications of the CQA personnel and testing laboratories. Personnel qualifications must include recognized industry certifications where available and applicable. Testing laboratories must be certified by the appropriate state and national accreditation programs for the tests to be performed;

(5) The inspections and tests to be performed to ensure that the mining operation conforms to the requirements of the permit, this rule and the Act;

(6) The sampling activities, sample size, methods for determining sample locations, frequency of sampling, acceptance and rejection criteria, and methods for ensuring that corrective measures are implemented;

(7) Record keeping and reporting requirements for CQA activities; and

(8) A list and description of all items requiring CQA certifications, including identification of the engineer(s) responsible for these certifications.

G. **Environmental Impact Assessment.** An environmental impact assessment shall be included as part of the application. Preparation of an environmental impact assessment must include the

public participation requirements described in section 10 of this Chapter. The environmental impact assessment report shall include:

(1) Project Description. The project description shall include:

(a) A map showing the metallic mineral mining area and affected area, including a rationale and basis supporting the proposed mining area boundaries and affected area boundaries and locations of protected natural resources as defined at 38 M.R.S. §480-B(8) within, adjacent to or potentially impacted by the mining area or affected area;

(b) A statement of purpose and need for the proposed mine and mining activity components; and

(c) A summary of the life-of-mine plan and the environmental protection, reclamation and closure plan.

(2) Resource and Setting. A description of and documentation of the metallic mineral mining area, affected area, natural and artificial features, and where applicable, anticipated seasonal and longer term variations of those features using data and information from the baseline characterization, the reactive mine and designated chemical materials characterization, as well as other site-specific information, credible regional studies, and studies of other sites having documented similar conditions. This assessment must include the quality, flora, fauna, hydrology, geology, geochemistry, and baseline conditions for these features, including:

(a) Topography and land use;

(b) Climate;

(c) Visual resources;

(d) Geology, including, but not limited to, the areal extent, thickness, lithology, permeability, and geochemistry of soils, overburden, and the bedrock and ore body;

(e) Water resources including, but not limited to, the hydrologic attributes of surface water and groundwater resources and the physical and spatial attributes of aquifers, groundwater basins, watersheds, and natural and artificial surface water resources;

(f) Locations of designated or recorded administrative features including:

(i) Hydrologic features such as wild, scenic or recreational rivers, wellhead protection areas, floodplains, and wetlands;

(ii) Towns, villages, counties and other civic jurisdictions;

(iii) Recreational, historical, cultural, archeological, scientific, and natural areas or similar features such as parks, refuges, wilderness areas, and state and national monuments; and

(iv) Public rights of way, zoning and associated land use plans for the metallic mineral mining area.

(g) Biologic resources including, but not limited to, the presence of or recorded locations of rare, endangered and threatened species, the presence or absence of species of special concern, significant wildlife habitats, deer wintering areas, aquatic and terrestrial flora and fauna species and abundance, and ecological systems; and

(h) Manmade structures, including descriptions, locations and uses of:

(i) Water supply sources for drinking, cooling, irrigation, geothermal, industrial, and other purposes;

(ii) Dwellings, places of business or worship, schools, hospitals, government buildings, and other buildings used for human occupancy;

(iii) Private, public, and institutional infrastructure such as utilities, transportation corridors, dams, bridges, and tunnels;

(iv) Past metallic mineral mining facilities including storage piles, tailings basins, pits, underground workings, and beneficiating plants; and

(v) Waste disposal facilities or sites of environmental contamination.

(3) Impact Analysis. The environmental impact assessment must identify potential impacts to the resources and setting identified in subsection 9(G)(2), above.

(4) Use of Federal Permit Submissions. An Environmental Impact Statement or equivalent document prepared as part of Federal permitting requirements for an application under this activity may be accepted in lieu of the State's required EIA, at the discretion of the Department. The Department may require these documents to be supplemented to meet the requirements of the Chapter.

(5) Environmental impact assessment results, analyses, and findings and supporting information and data shall be submitted in a report to the Department as part of the application for a permit to mine.

H. Alternatives Analysis. An alternatives analysis shall be included as part of the application and must include the following information and analysis. This analysis will be incorporated into the Department's analysis of whether the proposed project would unreasonably adversely affect existing uses, scenic character, air quality, water quality, and other natural resources.

(1) The alternatives analysis must demonstrate the consideration of siting alternatives as well as alternative technologies, modified scale or magnitude, and alternatives incorporating practicable mitigation measures for portions of a metallic mineral mining operation ancillary to the removal of material in connection with the commercial production of metallic minerals, and for which there is some flexibility in site selection, such as storage piles, tailings basins, water reservoirs, beneficiation operation processing plants, chemical and fuel storage and handling areas, wastewater treatment plants and disposal alternatives, offices, roadways, and

auxiliary facilities.

(2) The alternatives analysis for removal of material must demonstrate minimization including location, removal techniques, and reasonable mitigation measures.

(3) Alternatives that were considered but eliminated based on information developed through the environmental impact assessment must be discussed and the reason for their elimination must be stated.

(4) Data and analysis shall be commensurate with the importance of the impact and the relevance of the information to a reasoned choice among alternatives and to the consideration of the need for mitigation measures.

(5) Impact Analysis. There shall be an analysis of potentially significant adverse or beneficial environmental effects generated, directly, indirectly, or cumulatively for the proposed mine and each major alternative.

(6) Mitigation. Measures that could reasonably eliminate or minimize any adverse environmental, economic, or sociological effect of the proposed project shall be identified, including:

(a) Minimizing an impact by not taking a certain action or parts of an action;

(b) Rectifying an impact by repairing, rehabilitating, or restoring the affected environment;

(c) Reducing or eliminating an impact over time through preservation and maintenance operations during the life of the project; and

(d) Compensating for an impact by replacing the affected significant wildlife habitat.

I. **Environmental Protection, Reclamation and Closure Plan.** An environmental protection, reclamation, and closure plan shall be included as part of the application. The environmental protection, reclamation, and closure plan shall describe the metallic mineral mining operation plan and include the siting, design, operation (including beneficiation operations), reclamation, and closure methods to be used during construction, operation, reclamation, and closure to avoid, minimize and mitigate actual and potential adverse impacts to natural resources, the environment, and public health and safety. The environmental protection, reclamation, and closure plan must address the unique issues associated with mining and must include, at a minimum, the following:

(1) A description of each aspect of the mine siting, design, development, operation, reclamation, and closure, including post closure ("mine plan"), and the potential adverse impacts to natural resources, the environment, and public health and safety that are avoided, minimized, and/or mitigated;

(2) Detailed designs, plans, specifications, techniques, methods, materials, standard operating procedures, construction methods, and schedules for each aspect of the mining plan;

(3) The basis for the applicant's contention that the proposed plan for each of these aspects prevents adverse impacts to natural resources, the environment, and public health and safety;

(4) A description of the reclamation plan, including, at a minimum:

(a) A life-of-mine reclamation plan as required in section 23 of this Chapter;

(b) A plan for contemporaneous reclamation activities along with an explanation if contemporaneous reclamation will not be practicable in certain aspects of the project;

(c) Closure and post-closure maintenance, identifying reclamation activities that would be taken by the Applicant if operations cease or are suspended. The plan shall address all of the components stipulated in section 24 of this Chapter and be updated annually; and

(d) A schedule for expected reclamation activities;

(5) A detailed written cost estimate and cost rationale for each category of the mining operation, including, at a minimum:

(i) The cost of designing and constructing the mine and operational costs for the first five years of operation; and

(ii) The cost to investigate a release of contaminants at the site, monitor all aspects of the facility, close the facility in accordance with the proposed closure plan, conduct treatment activities for a minimum of one hundred (100) years of all expected fluids generated at the facility, implement remedial activities for releases and maintenance of structures and waste units if these units have released contaminants to the groundwater and /or surface water, conduct reclamation of the mine site in accordance with the proposed reclamation plan, and conduct operations and maintenance under the proposed environmental protection, reclamation, and closure plans. All cost estimates shall be in current dollars and shall assume the hiring by the Department of a third party to complete all tasks. Cost estimates shall include Department oversight costs equal to 30% of the cost of hiring a third party to complete all tasks. No salvage value of products, waste, mine structures, equipment, land, or other assets associated with the mining operations shall be included in the cost estimate.

J. Monitoring Plan. A monitoring plan must be included as part of the application. The contents of the monitoring plan must meet the requirements described in section 22 of this Chapter.

K. Contingency Plan. A contingency plan must be included as part of the application. The contingency plan shall include all of the following:

(1) An assessment of the risk to public health and safety associated with potential accidents or failures involving the following:

(a) Release or threat of release of reactive mine or toxic materials;

(b) Storage, transportation, and handling of explosives;

(c) Fuel storage and distribution;

(d) Fires;

(e) Wastewater collection and treatment system failure or upset;

(f) Settling pond or tailings disposal area embankment failure;

(g) Air emissions;

(h) Spills of hazardous substances;

(i) Other specific natural risks defined by the environmental impact assessment;

(j) Power disruption;

(k) Unplanned subsidence;

(l) Leaks from containment systems for stockpiles or storage or disposal facilities; and

(2) A complete Spill Prevention, Control, and Countermeasures Plan if required by 40 CFR Part 112 or other federal or state statutes and regulations.

(2) Response measures that will be followed for each potential accident or failure.

(3) The procedure for notifying the general public, public authorities, and safety agencies in the event of an emergency including:

(a) A list, by title, of employees of the Permittee to be contacted and their duties and responsibilities;

(b) The actions to be taken to restrict access of nonessential personnel to the area;

(c) If evacuation of the public is necessary, the procedure for conducting the evacuation;

(d) A list of emergency equipment and its location;

(e) A list of emergency telephone numbers for the following people or entities:

(i) Representatives of the Permittee;

(ii) The local municipality emergency management coordinator;

(iii) Local ambulance services;

(iv) Local hospitals;

(v) Local fire and police Departments;

(vi) Department of Environmental Protection;

NOTE: Discharges of hazardous matter in any quantity and under any circumstances must reported immediately to the Department of Public Safety (State Police) unless exempted pursuant to Chapter 800 of the Department's regulations. Call 1-800-452-4664 or 207-624-7000 to notify

Public Safety of a discharge. Public Safety officials will notify the Department; the responsible party is not required to do so. Discharges of hazardous matter exceeding the federal reportable quantities in Appendix A to Chapter 800 of the Department's regulations must also be reported to:

- The National Response Center at 1-800-424-8802 [see 40 CFR § 264.56]
- The local fire Department and the local community emergency coordinator if the spill goes beyond the boundary of the facility [see 37-B MRSA § 798(1) and 40 CFR § 355.4].

(vii) Pollution emergency alerting system;

(viii) Federal regulatory agencies, as appropriate;

(ix) Department of Agriculture, Conservation and Forestry; and

(x) Local unit of government.

(4) A plan for testing the contingency plan to assure its effectiveness.

(5) The contingency plan, including contact information, shall be updated and re-submitted to the Department on an annual basis.

(6) The Applicant shall submit a copy of the contingency plan to each emergency management coordinator having jurisdiction over the metallic mineral mining affected area at the time the application is submitted to the Department.

L. Financial Assurance. A description of the type or types and amounts of financial assurance to be provided that will satisfy the requirements of subchapter 4 of this Chapter, and 38 M.R.S. § 490-RR must be included in the application.

M. Other Permits and Approvals List. The Applicant shall provide a list of all other applicable permits and licenses that are anticipated to be required with the application.

10. Public and Local Participation

A. Requirements. In addition to the public participation requirements of this Chapter, the requirements of Chapter 2 of the Department Rules and the Maine Administrative Procedure Act, 5 M.R.S. chapter 375, apply to an application for a Tier Two advanced exploration activity or mining permit.

B. Publication and Notice of Baseline Site Characterization Report. Upon submittal of the baseline work plan, the Applicant shall provide public notice of the availability of the baseline work plan for public review and comment by publishing notice in at least one newspaper of general circulation in the area where the activity is proposed, and in one newspaper with a circulation area of the entire State of Maine. Following notice of publication of the baseline work plan, there shall be 30 days for public review and comment.

(1) Review and Acceptance of Baseline Plan. Upon review of the proposed baseline plan and consideration of comments received, the Department shall either accept the baseline workplan or require revisions to the plan prior to acceptance.

(2) After the baseline workplan has been accepted by the Department, the Applicant shall submit to the Department a proposed amendment if:

(a) Changes in the siting of the proposed activity necessitate an expansion of the study area;

(b) Changes in the scope of the proposed activity necessitate additional studies; or

(c) Any other information is necessary for the Department to evaluate the proposed activity under all applicable permit review criteria.

C. Preparation of Environmental Impact Assessment

(1) A scoping process shall be used before preparation of an environmental impact assessment (EIA) to identify environmental issues relevant to the proposed activity; determine the appropriate level of analysis, and contents of the EIA; identify the factors to be assessed in the EIA; and set a timetable for preparation. At a minimum, the scope of an EIA shall encompass environmental, physical, cultural, and land use of a proposed activity; measures for mitigating significant impacts; the physical characteristics of the project site, and design/operation alternatives.

(2) Prior to the preparation of the EIA, a draft scoping document must be submitted to the Department by the applicant. The draft scoping document must be submitted before the application is filed, and shall include, but is not limited to, the following:

(a) Description of the proposed activity including the Applicant and the name and location of the activity;

(b) Identification of other reviewing agencies;

(c) Identification of potential environmental impacts and issues that require investigation;

(d) Detailed work plan for the analysis of each major issue area including proposed evaluations;

(e) Copy of the baseline site characterization report, if previously accepted;

(f) Identification of the baseline data that will be incorporated into the EIA and how it will be incorporated; and

(g) Preliminary outline of the EIA.

(3) Public Notice and Availability of Draft Scoping Document

(a) Upon submittal of the draft scoping document, the Applicant shall provide public notice of the availability of the draft scoping document for public review and comment by

publishing notice in at least one newspaper of general circulation in the area where the activity is located.

(b) The Applicant shall also notify, by certified mail, abutting landowners, the municipal officers of the municipality in which the activity is proposed or, if within the unorganized territories, the county commissioners with jurisdiction where the activity is proposed.

(4) Public Comment Period. Following notice of publication of the draft scoping document, there shall be 45 days for public comment.

(5) Public Scoping Meeting. During the comment period, the Department may hold a public scoping meeting to gather further comments on the draft scoping document if the Department determines that such a meeting is necessary or useful to the review process.

D. Advanced Notice of Intent to File

(1) The Applicant shall notify by certified mail the municipal officers of each municipality in which the mining area or affected area may be located or, in an unorganized territory, the county commissioners for each county in which the mining area and affected area may be located, of his intent to file a mining permit application at least 60 days prior to submitting an application to the Department.

(a) The notice shall contain all of the following:

(i) A statement of intent to apply for a permit to mine;

(ii) The name, address, and telephone number of the applicant;

(iii) The name of a designated contact person;

(iv) The type of mine proposed and a figure clearly showing the location of the mining area and the affected area; and

(v) The anticipated date of submittal of the permit application.

(vi) The advanced notice of intent to file must include a description of the right of the municipal officers or county commissioners to apply for intervenor grants, their right to receive grants not exceeding $50,000 to support certain activities to intervene before the Department, and the requirement that they must request intervenor status within 60 days of this notification or be deemed to have waived the right to receive intervenor grants.

(2) At the same time the Applicant shall provide a copy of this notice to the Department and the Director of the Bureau of Geology, Natural Areas and Coastal Resources within the Department of Agriculture, Conservation and Forestry.

E. Notice of Intent to File Applications. At least 30 days prior to filing, an Applicant shall give public notice of Intent to File an application for a new, transferred, or amended permit. An application that has been previously returned as incomplete pursuant to the Department's administrative rules must comply with these requirements if the application is not resubmitted

within 30 days of the date it was returned to the applicant. The notice must be mailed by certified mail or Certificate of Mailing to abutters, as determined by local tax records or other reliable means, to the municipal office of the municipality(ies) where the project is located and, if the project is located in the unorganized or deorganized areas of the state, to the appropriate county commissioners. The notice must also be published once in a newspaper circulated in the area where the project is located. Copies of the published Notice of Intent to File and a list of abutters to whom notice was provided must be submitted with the application. The notice must include the following information:

(1) Name, address, and telephone number of the applicant;

(2) Citation of the statutes or rules under which the application is being processed;

(3) Location of the activity;

(4) Summary of the activity;

(5) Anticipated date for filing the application with the Department;

(6) A statement providing the local filing location where the application can be examined;

(7) A statement that public comments on the application may be provided to the Department, together with the name and email address of the Department contact person and the mailing address of the Department; and

(8) Any other information required by applicable rule or law.

F. Adjudicatory Hearings. The Department will hold an adjudicatory hearing within the municipality in which an advanced exploration or mining operation may be located or, in the unorganized territory, in a location convenient to the vicinity of the 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. Public notice of such a hearing will be provide in accordance with the Maine Administrative Procedure Act, 5 M.R.S.§ 9051-A. The hearing will be conducted in conformance with the requirements of the Maine Administrative Procedure Act, 5 M.R.S. §§ 9051-9063, and the Department's *Rules Governing the Conduct of Licensing Hearings*, 06-096 CMR 3.

G. Intervenor Status and Grants

(1) Petitions for Intervenor Status. A municipal or county commissioner may petition for intervenor status, pursuant to 38 M.R.S. §490-00(6)(D), in the Department's licensing proceedings for a new or expanded mining operation proposed to be located in that municipality or unorganized territories. An intervenor may request financial assistance, consistent with the provisions of this rule to pay for direct expenses associated with its substantive participation in the Department's application review process.

(a) A request for intervenor status may be filed in any application proceeding for a Tier Two advanced exploration permit or a mining permit under this article. An application for intervenor status may not be filed in an application proceeding for a Tier One permit unless the Department decides to hold a public hearing.

(b) As provided in 38 M.R.S §490-OO(6)(D), the municipal officers, or their designees, from each municipality in which the mining area or affected area may be located or, in the unorganized territory, the county commissioners or their designees, for each county in which the mining area or affected area may be located have intervenor status if they request it within 60 days after notification under paragraph D, above. Immediately upon the Commissioner's receipt of a request for intervenor status from such a municipality or county, the intervenors have all rights and responsibilities commensurate with this status.

(2) Fees Paid by the Applicant. The commissioner shall reimburse or make assistance grants for the direct expenses of intervention by municipalities and county commissioners granted intervenor status pursuant to this section.

(a) The Applicant shall pay the Department an amount sufficient for the Department to reimburse or make assistance grants for the direct expenses of intervention of any party granted intervenor status.

(b) The amount of any such grant is not to exceed $50,000 per project per intervenor.

(c) The Department shall coordinate, evaluate, and approve or deny in writing all requests by intervenors for grants or project expense reimbursement.

(3) Grant Documents. The Department shall draft a grant agreement as soon as possible after a qualified municipality or county commissioner has requested intervenor status. This agreement will formalize the type of services to be used; the frequency and conditions of billing, grant payment or reimbursement; the required documentation of costs and work output; and audit and grant repayment conditions.

(4) Grant Reimbursement. Allowable expenses include hydrologic studies, traffic analyses, the retention of expert witnesses and attorneys, and other related expenses. Expenses not incurred in support of direct, substantive participation in the proceedings before the Department, including attorneys' fees related to judicial appeals, are not eligible for grant funding or reimbursement under this provision. Reimbursement requests shall include the following:

(a) Not more often than monthly, an intervenor seeking reimbursement for expenses shall submit detailed documentation of eligible expenses to the Department up to the maximum amount approved by the Department. Documentation shall include the following:

(i) A description of the expense incurred, the names of the person or entity performing the work or providing the testimony and the dates on which that work was performed or the study or testimony provided;

(ii) Hourly rates and the number of hours worked, if applicable, or the cost for each person providing services or testimony.

(5) Upon approval of a grant agreement, grant payments must be made upon the request of the intervenor unless payment is denied for one of the following reasons:

(a) The work was undertaken before the municipality or county commissioners had intervenor status, after the intervenor had been notified by the Applicant that the application was withdrawn, or after withdrawal of the intervenor;

(b) False statements were made in the grant submission; or

(c) Expenses are ineligible for payment under section 10(G)(4).

(6) The intervenor shall maintain all documentation of expenses pertaining to costs incurred under the grant agreement. These materials must be provided upon request by the Department.

(7) Any grant funds not spent by an intervenor for eligible costs must be returned to the Applicant within 60 days of the Department's final disbursement to the intervenor, but in no case later than 120 days after approval or denial of the application.

(8) Intervenor Access to the Site. Intervenors shall have access to the proposed mining site at reasonable times for purposes of inspection and investigation, as follows:

(a) An intervenor must submit a request in writing for entry to the site to the Department explaining the dates and times of requested entry, names of persons to gain entry, specific location of proposed work, and a detailed description of work to be conducted.

(b) The intervenor shall provide a copy of the written request for access to all other intervenors and the applicant.

(c) If the Applicant and the requesting intervenor are unable to reach agreement within a reasonable time for the intervenor's access to the site, the Department will arrange for the site access for the intervenor.

(e) A designated representative of the mining permit Applicant shall accompany the intervenor on at least the first site visit and may approve non-accompanied future intervenor visits.

NOTE: Other petitions for intervenor status will be governed by the Department's Rules Concerning the Conduct of Licensing Hearings, 06-096 CMR 3.

11. Criteria for Mining Permit Approval. A person may not engage in metallic mineral mining except as authorized in a permit to mine issued by the Department.

A. Permit Approval. Except as provided above, and considering the extent to which other permit determinations afford protections to natural resources, the Department will issue a mining permit whenever it finds the following:

(1) The Applicant has the authority, financial capacity, and technical ability to develop the proposed mine in a manner consistent with applicable state environmental standards and with the provisions of this Chapter and the Act.

(2) The Applicant has demonstrated that its proposed mining operation meets the requirements of all of the following:

(a) The Applicant has made adequate provisions for fitting the mining operation harmoniously into the existing natural environment, and the development will not unreasonably adversely affect existing uses, scenic character, air quality, water quality or other natural resources;

(b) The mining operation is located on soil and rock types and geological structures that are suitable to the nature of the mining operation;

(c) There is a reasonable assurance the mining operation will not violate applicable surface water quality standards or groundwater standards outside the mining area;

(d) The mining operation will not result in a direct or indirect discharge that, either by itself or in combination with other discharges, cause or contribute to nonattainment of applicable surface water quality standards or groundwater standards outside the mining area under the Water Classification Program, 38 M.R.S. §§ 464-470;

(e) Withdrawals of groundwater and surface water related to the mining operation will comply with the Water Withdrawal Reporting Program, 38 M.R.S. § 470-A, *et seq.;*

(f) The Applicant has made adequate provisions for utilities, including electrical power, heating fuel supplies, water supplies, wastewater treatment facilities and solid waste disposal required for the mining operation and the mining operation will not have an unreasonable adverse effect on the existing or proposed utilities in a municipality or area served by those services;

(g) The mining operation will not cause or increase flooding of the area that is altered by the mining operation or adjacent properties or create an unreasonable flood hazard to any structure. Mining operations may be placed in flood plains or flood hazard areas as long as they are designed, constructed, operated and reclaimed in a manner that complies with the approval criteria in this subsection and the Natural Resources Protection Act;

(h) The Applicant has made adequate provision for protection of public health and safety;

(i) The mining operation will not use heap or percolation leaching;

(j) The mining operation meets the performance standards of this Chapter; and

(k) Has demonstrated a reasonable assurance of being able to meet all terms and conditions specified by the Department in a mining permit.

B. Requirements. The Department shall process each permit application required and submitted by the Applicant under 490-NN, subsection 1 of the Act and identified by the Applicant in the permit application under the requirements of subsection 9(M) of this Chapter in a coordinated fashion. The coordinated process shall include consolidation of public hearings and the issuance of a joint decision on all applications for permits required by the Department.

C. Effect of Current Violation. The Department may not issue a mining permit if the Applicant or any person in a position to control the operations of the Applicant is in violation of any state or federal law, rule, permit, or order that the Department determines in the permit decision is

relevant to the issuance of a mining permit, unless the person has corrected the violation or the person has agreed in a judicially enforceable document to correct the violation.

D. Effect of Compliance History. The Department may not issue a mining permit if the Applicant or any person in a position to control the operations of the Applicant has a history of violation of state or federal land use or environmental laws demonstrating that the Applicant would not be capable of complying with the terms and conditions of a mining permit. An Applicant may present evidence of changed conditions or circumstances demonstrating the current ability to comply with all permit terms and conditions notwithstanding any prior violations. If that evidence is sufficient to warrant a finding by the Department that the Applicant is capable of compliance the Department may issue the permit.

E. Effect of Financial Assurance Defaults. The Department may not issue a mining permit if the Applicant or any person in a position to control the operations of the Applicant has defaulted on or otherwise violated a financial assurance requirement including, but not limited to, a letter of credit, bond, trust fund, guarantee, or financial test.

12. Permit Conditions

A. Standard Conditions

(1) Relation of Permit to Application. The plans, specifications, descriptions, and other documentation submitted by the Permittee in support of the application, and approved by the Department in issuing the permit, constitute terms of the permit. Any variation or change in the plans, specifications, descriptions, or other documentation must be approved by the Department prior to implementation. Upon completion of any construction or alteration, the Permittee must submit to the Department a written certification by an independent registered professional engineer that the site has been constructed or altered in accordance with the terms of the permit.

(2) Duty to Comply. The Permittee must comply with all terms and conditions of the permit. Any noncompliance constitutes a violation of law and is grounds for enforcement action, permit suspension, or revocation.

(3) Duty to Halt or Reduce Activity. It shall not be a defense in an enforcement action that halting or reducing the permitted activity would have been necessary in order to maintain compliance with the conditions of the permit.

(4) Duty to Mitigate. The Permittee shall take all steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

(5) Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems which are installed or used by the Permittee to achieve compliance with the conditions of the permit.

(6) Permit Actions. The Department, after notice and an opportunity for a hearing as required under the Maine Administrative Procedure Act, 5 M.R.S. §§ 10003 & 10051 and 38 M.R.S. §342(11-B), may modify a permit or may act to suspend or revoke the permit. The Department may also modify a permit in response to an application for a modification filed by the Permittee. The filing of a request by the Permittee for a permit modification does not

stay any permit condition. If the Department determines that a violation of the Mining Act, Chapter 200, a Department Order or this permit is causing or resulting in imminent and substantial endangerment to the public health or safety, environment or natural resources, the Department may issue an order requiring immediate suspension of mining activities, including the removal of metallic product from the site.

(7) Property Rights. The permit does not convey any sort of property right or exclusive privilege.

(8) Duty to Provide Information. The Permittee shall furnish any information which the Commissioner requests in order to determine whether cause exists for modifying, suspending, or revoking the permit or to determine compliance with the permit. The Permittee shall also, upon request, furnish to the Department copies of records required by law or by the permit to be kept by the Permittee, and not otherwise required to be filed with the Department. The information shall be submitted in accordance with the timeframe requested by the Commissioner.

(9) Monitoring Reports. All monitoring results shall be reported to the Department according to this Chapter, the mining permit, and the Act.

(10) Noncompliance and Occurrence Reporting. The Permittee shall report to the Department any noncompliance, any unpermitted or otherwise unlawful release or discharge of pollutants, and any fire or explosion at the site. Information shall be provided orally within 2 hours of the time the Permittee becomes aware of the circumstances, and in writing within 5 working days. If the noncompliance, release or discharge of pollutants, or cause of fire or explosion has not been corrected, the anticipated time it is expected to continue must be given, together with the steps taken or planned to reduce, eliminate and prevent recurrence. The written submission shall include the following:

(a) Name, address, and telephone number of the owner or operator;

(b) Name, address, and telephone number of the facility, if applicable;

(c) Date, time, type, and description of incident;

(d) Name and quantity of any waste(s) involved;

(e) The extent of injuries, if any;

(f) An assessment of actual or potential hazards to the environment and human health inside and outside the site, when applicable; and

(g) Estimated quantity and disposition of any pollutants released or discharged.

(11) Other Information. When the Permittee becomes aware that it has failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department including any sampling data evaluating the site, the Permittee shall promptly submit such facts or information to the Department.

(12) Signatory Requirement. All applications, reports, or information submitted to the Department shall be signed by a responsible officer. Such responsible officer shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information."

(13) Construction/Operation within 4 Years. If the Permittee has not commenced construction and mining activities within 4 years of the date the permit is issued, the permit expires and the Applicant shall reapply to the Department for a permit unless the Permittee is issued an extension pursuant to section 14 of this Chapter. No construction or operation may be undertaken until a new permit is granted. The new application must state the reasons why construction or operation was not begun within 4 years from the granting of the initial permit, and the reasons why construction or operation will be able to begin within 4 years from the granting of the new permit. The new application may incorporate, by reference, information submitted in the initial application, but must include all information required by law or rule at the time the new application is submitted.

(14) Commencement of Operations. Prior to the commencement of operations:

(a) The Permittee shall submit to the Department by certified mail or hand delivery a letter signed by the Permittee and a State of Maine Registered Professional Engineer stating that the site has been constructed, altered, or modified in compliance with the permit; and

(b) The site must be inspected by the Department and found to be in compliance with the conditions of the permit.

(15) Other Permits and Licenses. The Applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, approvals, conditions, agreements, and orders prior to and during construction, alteration, modification, operation, reclamation, and closure as appropriate.

(16) Bid Specification. A copy of the approval must be included in or attached to all contract bid specifications for the site.

(17) Contractor Copy. The Permittee may not direct or allow any work within the scope of the permit to be done by a contractor until the contractor(s) has been given a copy of the mining permit. The Permittee shall certify to the Department that the contractor(s) has received a copy of the permit.

(18) Annual Fee. The Applicant shall pay the annual fee as required by 38 M.R.S. § 352(4-A)(E). The permit is not effective until and unless the annual fee has been paid.

(19) Inspection and Entry. Employees and authorized representatives of the Department shall be allowed access to the site and affected area during business hours, and at such other times as the Department deems necessary, for the purpose of performing tests, collecting samples,

conducting inspections, examining records relating to the site, or developing or enforcing any rule or statute.

(20) Financial Responsibility. The Permittee shall not commence construction or continue operation at the site until and unless:

(a) All required insurance coverage is in force and effect;

(b) All assurance of insurance, reclamation, corrective action, closure and post-closure funding is made as required;

(c) All financial responsibilities are met as required; and

(d) All cash deposits or payments and letters of credit are delivered as required.

(21) Preconstruction. All preconstruction terms and conditions must be met before any construction begins.

(22) Advertising. Advertising relating to matters included in the permit application may refer to the approval only if it notes that the approval has been granted with conditions, and indicates where copies of the permit may be obtained.

(23) Transfer of Ownership. Unless otherwise provided in the permit, the Permittee may not sell, lease, assign, or otherwise transfer the site or any portion thereof, or cause or allow any other action where the purpose or consequence is to transfer any of the obligations of the Permittee as incorporated in the permit, without prior written approval of the Department pursuant the 06-096 C.M.R. 2(21).

(24) Deed Notation. Whenever any site, or portion thereof, previously used for mining or advanced exploration is transferred by deed, the following must be expressly stated in the deed:

(a) The type(s) of waste unit(s) located on the site, the dates of establishment and closure of each, and a description of the location, composition, extent, and depth of waste deposited in each; and

(b) The heading and date of issuance of the permit, the identification number of the permit, and the fact that it was issued by the Department of Environmental Protection.

B. Special Conditions. The Department may place special terms and conditions on a permit issued under this Chapter as necessary to ensure that the construction, operation, and reclamation of the proposed mining operation is implemented in compliance with the law and terms of the permit and to protect the environment and public health and safety. However, terms and conditions must specify particular means of satisfying minor or easily corrected problems, relating to compliance with this Chapter and with the applicable law, and may not substitute for or reduce the burden of proof on the Applicant to affirmatively demonstrate to the Department that each of the applicable standards has been met.

13. Duration of Permit

A. If construction and/or operation commences within 4 years after the effective date of a mining permit, a permit granted pursuant to this Chapter continues in effect as long as:

(1) The Department has not obtained a court order terminating or revoking the permit pursuant to ection 32 of this Chapter, 38 M.R.S. §342 (11-B), and the Maine Administrative Procedure Act, 5 M.R.S. §10005(1); or

(2) There is a Department approved suspension of mining operations as provided in section 29 of this Chapter;

B. The Permittee shall file an application for a permit amendment to meet current regulatory requirements for any mining operation not constructed within 4 years of permit approval.

C. All other permits associated with the mining activities and mine waste site expire in accordance with their terms and conditions.

D. The Department shall conduct annual reviews of the mining operations and assess compliance with the permit terms. If the Department determines that the Permittee is in noncompliance with the Act, rules, permit, or order, and determines that the violation is causing an imminent endangerment, the Department may require that the Permittee cease mining for metallic metals, and cease the removal of metallic metals from the site until the compliance issues are corrected to the Department's satisfaction. In addition to requiring the correction of the violations, the Department may pursue enforcement action including the termination or revocation of the permit.

14. Termination of Permit

A. Requirements

(1) After public notice as specified in section 10 of this Chapter, the Department may terminate or request surrender of a mining permit if the Permittee has not conducted mining activities covered by the mining permit within 4 years after the effective date of the mining permit.

(2) The Permittee may file a written request with the Department for approval of an extension of time to commence construction of mining facilities or conduct mining activities covered by the mining permit prior to Department ordered termination or surrender of a mining permit. The request must set forth:

(a) The reasons for the delay in the construction of mining facilities or commencement mining activities;

(b) The date of anticipated construction of mining facilities or commencement of mining activities; and

(c) The factors that will influence the decision for construction of mining facilities or commencement of mining activities.

B. The Department may approve an extension of time to commence construction of mining facilities or conduct mining activities covered by the mining permit if the Permittee demonstrates that the

mining operations are expected to commence within a reasonable period of time as determined by the Department.

C. The Department may terminate or request surrender of a mining permit if the following conditions have been achieved:

(1) The Permittee has requested termination of the mining permit and has demonstrated that:

(a) The requirements of the environmental protection, reclamation, closure, and post-closure plans have been satisfied;

(b) Final reclamation of the mining area and, as necessary, the affected area has been completed, including post-closure monitoring; and

(c)The mine is in compliance with all requirements of the permit, the rule, and the Act.

(2) The Department has:

(a) Determined that the documentation provided by the Permittee is complete and adequate to make a determination that the conditions required to terminate a mining permit have been achieved;

(b) Completed a field inspection of the mine and determined that:

(i) The Permittee has complied with all requirements of the permit, rules and Act;

(ii) Air, water, or other natural resources are not contaminated or impaired from the mining operation;

(iii) The Permittee has fulfilled all conditions determined to be necessary by the Department to protect the public health, safety and welfare, and the environment; and

(iv) Requirements for the post-closure monitoring period have been satisfied; and

(c) Completed the public notice requirements specified in section 10 of this Chapter.

15. Transfer of Permit. No permit issued pursuant to the Act and these rules may be transferred without prior written approval of the Department. Prior to the transfer of a mining permit to another person, the acquiring person, the transferee, shall submit to the Department a request for the transfer of the permit to mine.

A. A transferee shall submit to the Department a request for the transfer of the mining permit on a form provided by the Department.

B. A transferee shall provide the following to the Department as part of the request:

(1) Evidence of title, right, or interest in all of the property that is proposed for development or use;

(2) An update to the contingency plan;

(3) A demonstration of financial capacity and technical ability;

(4) A summary of the applicant's and its responsible officers' and related corporations' record of compliance with environmental and land use laws and financial requirements of Maine and other jurisdictions, as follows:

(a) A list and explanation of any felony convictions, any criminal convictions of environmental and land use laws, and any civil violations of environmental or land use laws administered by the Department, the State, other states, the United States, or another country, in the 10 years immediately preceding the filing of the application; and

(b) A list and explanation of administrative consent agreements or consent decrees entered into by the Applicant or related persons which include or pertain to alleged violations of environmental or land use laws administered by the Department, the State, other states, the United States or another country, in the 10 years immediately preceding the filing of the application;

(5) An update to the financial assurance plan;

(6) Documentation stipulating acceptance of all aspects of the permit to mine and a commitment to adhere to the requirements of the rule and Act;

(7) Any proposed changes to the mining plan;

(8) Transfer fee; and

(9) The transferee shall complete the public notice requirements specified in subsection 10(E) of this Chapter.

C. The Department will hold a public meeting pursuant to 06-096 CMR 2 for all mining permit transfers.

D. The Department will complete an inspection of the mining operation and determine whether the existing Permittee is in compliance with the permit to mine, the rule and the Act. If a Permittee is determined by the Department to be in violation of the permit to mine, the rule or the Act, the mining permit of the mine subject to the transfer may not be transferred until the Permittee has completed the necessary corrective actions or the person acquiring the mining permit has agreed in a legally enforceable document to correct the violation pursuant to a compliance schedule approved by the Department.

E. A permit transfer is not effective until:

(1) The transferee has satisfied the Department of adequate evidence of the financial assurance required by the permit to mine, this Chapter and the Act;

(1) All other applicable permits and authorizations have been transferred to the acquiring Permittee; and

(3) A transferee has demonstrated to the Department's satisfaction the intent to:

(a) Comply with all terms and conditions of the mining permit, the rule, and the Act; and

(b) Satisfy all applicable statutory and regulatory criteria.

F. A Permittee shall not convey authority to operate a mine to another person until a permit to mine is granted to the transferee by the Department.

16. Amendment of Permit. A mining permit may be amended in accordance with the requirements of this section to address changes in the mining operation, natural, or human made conditions, technology, deficiencies in the reasonable protection of the environment, natural resources, or public health and safety, or to correct an oversight.

A. Requirements

(1) A Permittee may submit to the Department a request to amend a mining permit to address anticipated changes in the mining operation.

(2) The Department may require the Permittee to submit a request to amend a mining permit if the Department determines that the terms and conditions of the mining permit are not providing reasonable protection of the environment, natural resources, or public health and safety.

(3) The Permittee shall provide revisions of any of the following that are, or reasonably could be, affected by the proposed amendment:

(a) Environmental impact assessment;

(b) Environmental protection, reclamation, and closure plan;

(c) Contingency plan;

(d) Mining plan;

(e) Financial assurance provisions;

(f) Other applicable federal, state, and local permits and licenses that are anticipated to be required; and

(g) Other terms and conditions of the mining permit.

(4) The Permittee shall pay all costs associated with any necessary third party review of materials submitted under this section.

(5) The Permittee shall comply with the public notice requirement specified in 38 M.R.S. § 490-OO(6)(B).

B. Within 15 working days after receiving a request to amend a mining permit, the Department shall determine whether the request constitutes a significant change from conditions of the approved mining permit, and whether the submitted documentation is administratively complete.

C. In the event that the Department determines that an amendment is a minor revision, the Department shall consider the request for amendment automatically approved within 60 working days of an administratively complete submittal, unless the Department requests additional information or the application is denied.

D. In the event that the Department determines that an amendment is not a minor revision, the Applicant shall submit the applicable fee and the same review process as provided for in an new mining permit application will be required, including all public participation and intervenor requirements, except that the Permittee will not be required to submit any information which duplicates applicable previous submittals. The Permittee shall clearly describe where the information not included in the amendment application, but necessary to render the amendment technically adequate, may be found in the original application and supporting documents.

Subchapter 4: FINANCIAL ASSURANCE AND INSURANCE

17. Financial Assurance and Insurance Requirements

A. **Requirements.** Financial assurance and insurance is required for all advanced exploration and mining activities.

(1) The Permittee shall continuously maintain financial assurance, as a condition of the permit to mine, until the Department determines that all reclamation and post-closure monitoring have been completed.

(2) The Permittee shall be required to maintain financial assurance for as long as the mining operation and any associated waste material could create an unreasonable threat to public health or safety and the environment.

(3) Financial assurance must be available and made payable to the Department when needed.

(4) Financial assurance may be canceled by the Permittee only after it is replaced by alternative mechanisms in the appropriate amount on the express written consent of the Commissioner.

(5) Financial assurance must be fully valid, binding, and enforceable under state and federal law,

(6) Financial assurance may not be discharged through bankruptcy of the Permittee.

(7) All terms and conditions of financial assurances must be approved by the Department and must be analyzed by individuals with documented experience in material handling and construction, mining costs, and financial analysis. All costs incurred by the Department in hiring third parties to perform these evaluations must be paid by the applicant.

B. **Coverage of Financial Assurance**

(1) Financial assurance under this section applies to mining and reclamation operations that are subject to a mining permit, and must be sufficient for the Department to:

(a) Administer all activities necessary for the investigation, monitoring, closure, treatment, remediation, reclamation, operation and maintenance under the environmental protection, reclamation, and closure plan; and

(b) Implement other necessary environmental protection measures, including remediation of any air, surface water, or groundwater contamination.

(2) Financial assurance must be adequate for the Department to hire a third party to implement all reclamation and remediation activities required pursuant to sections 23 and 24, above.

(3) The Applicant must provide detailed documentation of the estimated cost to implement the reclamation plan, closure activities, and post-closure monitoring with the application for permit as follows:

(a) Cost estimates must be based on current dollar value;

(b) No salvage value attributed to the scale wastes, facility structures, equipment, land or other assets may be used for estimating purposes; and

(c) Cost estimates must be re-evaluated and updated at any time that the Department requires a corrective action and the financial assurance amount must be adjusted accordingly.

(4) Cost estimates must reflect reclamation, closure and post-closure monitoring costs for each activity included in the advanced exploration or mining permit, and must:

(a) Utilize the highest cost option for all estimates;

(b) Assume that all activities are to be completed concurrently; and

(c) Base cost estimates on the maximum permitted quantities and volumes.

(5) The financial assurance must be updated annually and adjusted using the implicit price deflator for gross national product as published by the U.S. Department of Commerce, Survey of Current Business and submitted to the Department on or before March 15 of each year.

(6) The estimated cost to implement the reclamation plan and post-closure monitoring activities must cover the costs required if the mining operations were to cease in that year.

(7) The financial assurance must not include funds from the Maine Mining Oversight Fund as established at 36 M.R.S. § 2866.

(8) Without limitation, changes in the financial assurance may be required due to modifications of the permit, changed financial or site conditions, technology changes, inflation, anticipated changes in mining activity and waste unit utilization, or changes in requirements for closure, post-closure maintenance, corrective action, or reclamation. The Permittee shall annually report to the Department, subject to the Department's approval, an estimate of cost changes as provided in this rule on or before March 15. The permit remains in effect only if all required deposits or increases are made within 30 days of the due date provided in this rule. The obligation to make deposits or increases ceases only upon approval from the Department.

C. **Financial Assurance Mechanisms.** The financial assurance must be in a form that cannot be canceled, withdrawn, revoked, or otherwise reduced without the express written consent of the Department.

(1) Mining operations that will produce Group A or B wastes. Financial assurance for a mining operation that will produce Group A or B wastes must consist of a trust fund that is secured with negotiable property. Acceptable financial instruments are limited to:

(a) A cash account in one or more federally insured accounts;

(b) Negotiable bonds issued by the United States, a state or municipality having a Standard and Poor's rating of AAA or AA, or an equivalent rating from a national securities rating service; and

(c) Negotiable certificates of deposit in one or more federally insured depositories.

(2) Mining operations that will produce Group C wastes. Financial assurance for a mining operation that will produce only Group C wastes may consist of any of the options listed in C(1) above, or:

(a) Surety bond;

(b) Trust fund that is secured with:

(i) Escrow funds;

(ii) Cash;

(iii) Negotiable bonds issued by the United States, a state or municipality having a Standard and Poor's rating of AAA or AA, or an equivalent rating from a national securities rating service; and/or

(iv) Negotiable certificates of deposit;

(c) Irrevocable letter of credit;

(d) Other equivalent security as approved by the Department; or

(e) Combination of above.

D. **Financial Assurance Administration**

(1) Trust fund requirements.

(a) When a trust fund is utilized as the financial assurance instrument, the Permittee shall deposit at least fifty percent (50%) of the required financial assurance prior to the commencement of construction, and the trust fund must be fully funded within five years of the permit issuance. Deposits to the trust fund must be in equal amounts throughout the five years.

(b) The Department shall be a party to the trust agreement as beneficiary and shall have the right to withdraw and use part or all of the funds in the trust fund or to require the liquidation of the assets of the trust fund, at its sole discretion, to carry out the Act requirements including all associated regulations, permit, and other requirements as the Department determines necessary. The trust agreement must provide that there shall be no withdrawals from the trust fund except as authorized in writing by the Department.

(c) The trust fund must not constitute an asset of the trustee or Permittee, and must be established in such a manner so as to ensure the funds in the account will be available to the Department and not any creditor, including in the event of bankruptcy or reorganization of the trustee or Permittee. The Permittee shall pay all costs of managing the fund and compensating the trustee.

(d) The trustee must not invest assets of the trust fund in any real estate or real estate investment trust, any contract for the future sale or delivery of commodities or foreign currency, any state, municipal or corporate bond, or any other equity instrument or security, except that assets of the trust fund may be invested in securities issued by the United States Treasury.

(e) The trustee shall notify the Department immediately in the event that any payment from the Permittee is not remitted by the due date.

(f) The trustee shall submit to the Department an annual statement of deposits, letters of credit, investments, and any income and principal in the trust fund, and changes in the same over the prior year.

(g) The financial institution serving as a trustee is subject to Department approval, and is limited to the following:

(i) A bank or trust company chartered by the State of Maine;

(ii) A national bank chartered by the Office of the Comptroller of Currency; or

(iii) An operating subsidiary of a national bank chartered by the Office of the Comptroller of Currency.

(2) Letter of credit and surety bond requirements. Financial assurances utilizing a letter of credit or surety bond must meet the following requirements:

(a) A letter of credit must be unconditional, irrevocable, issued for a period of at least 1 year and otherwise in a form satisfactory to the Department.

(i) A letter of credit must be issued by:

(A) A bank chartered by the State of Maine;

(B) A national bank chartered by the Office of the Comptroller of Currency; or

(C) An operating subsidiary of a national bank chartered by the Office of the Comptroller of Currency.

(ii) At least 120 days before the expiration date, the financial institution issuing the letter of credit shall notify the Permittee and the Department if the letter of credit will not be renewed for an additional 1-year period. If the Permittee is unable to obtain a letter of credit that complies with this Chapter prior to 45 days before the expiration of the current letter of credit, the Permittee shall immediately draw all funds under the letter of credit and deposit those in a trust fund. The Permittee must also take all other measures necessary to maintain the letter(s) of credit as provided herein and to assure such letter(s) do not expire unless replaced with another duly qualified letter.

(iii) The Permittee and the letter of credit institution must be independent of one another. A financial arrangement in the form of a bond but that otherwise qualifies as a letter of credit meeting the requirements of this section shall be considered a letter of credit for purposes of this Chapter; and

(b) Surety bonds must be properly executed by an acceptable surety, with the seal of corporate surety affixed, accompanied by the power of attorney showing proof of signing authority as surety's representative. Surety bonds must be issued by a qualified surety approved by the U.S. Department of Treasury (http://www.fms.treas.gov/c570) and must have an A- or greater rating on the AM Best requirements pursuant to DGOM requirement R647-4-113.4.11.

E. Release of Financial Assurance

(1) When requesting release of financial assurance, the Permittee shall submit to the Department an environmental evaluation of the mining operation, mining site, impacted areas, waste units, reclamation and any required corrective action to ensure that any remaining problems are identified and corrected before financial assurance is released.

(2) When the Department makes a determination to release funds, it shall notify the Permittee and trustee, if applicable, in writing of the decision. At that time, the Department shall supply written approval to transfer the excess funds or to close the account. The Department does not release the Permittee from any mining obligations, reclamation, closure, post-closure, or corrective action requirements or third party liability as a result of releasing any funds.

F. Insurance Requirement. The Applicant must include, as part of its application, and the Permittee must provide annually thereafter as part of the mining and reclamation report required under subsection 26(B) of this Chapter, proof of comprehensive liability insurance for the site for sudden and accidental occurrences. The need for non-sudden occurrence insurance shall be assessed by the Department on a case-by-case basis. The Department will make the final decision as to the necessary amount and the need for such insurance. The insurance underwriter(s) must be approved by the Department. Requirements include, but are not limited to, the following:

(1) Liability insurance coverage must be provided during operation, reclamation, closure, and, where mine wastes will remain on the site after closure, during the post-closure maintenance period;

(2) The level of coverage for sudden and accidental insurance must be at least $2 million per occurrence and $4 million annual aggregate, unless because of a greater risk, a higher minimum is required by the Department for a particular site;

(3) All liability insurance coverage amounts must be exclusive of legal defense costs;

(4) An Applicant/Permittee may not self-insure. If liability insurance is unavailable, an irrevocable letter of credit drawn upon a reputable bank which meets the criteria of subsection 17(D) above, may be utilized in lieu of liability insurance for sudden and accidental occurrences; and

(5) The liability insurance policy may not be written as a "claims made" policy unless approved by the Department

18. Failure To Maintain Financial Assurance

A. A failure to provide financial assurance in accordance with this Chapter constitutes grounds for the Department to:

(1) Order the immediate suspension of mining activities including, but not limited to the suspension of the removal of metallic product from the site; and

(2) Prevent the removal of metallic product from the site.

Subchapter 5: MINING STANDARDS

19. General Provisions

A. Compliance. A Permittee or Applicant shall comply with all applicable standards and requirements under the Act, the provisions of the permit to mine, and this Chapter.

B. Performance-Based Standards. To the extent feasible, standards contained in this Chapter are performance-based. To the extent that these rules include standards that are not performance-based, a Permittee or Applicant may propose an alternative means of compliance that achieves the equivalent performance. If the Applicant proposes a control device or measure, it must demonstrate that there is reasonable assurance that the device or measure will achieve the performance standard. The Department is not required to approve any alternative means of compliance. Control devices or measures may be reassessed at any time, and if the Department determines that the control device or measure no longer achieves the performance standard, the Department may require remedial actions, including but not limited to, the implementation control devices or measures, and the cessation of all mining activity.

C. Burden. The Permittee or Applicant shall demonstrate that there is a reasonable assurance that all proposed or undertaken actions, devices, or measures will meet the minimum requirements of the rule, Act, and permit to mine.

D. Disclosure. The Permittee or Applicant must disclose fully all relevant facts applicable to the provisions of this rule, the Act, and the permit to mine.

E. **Required Information.** The Permittee or Applicant must provide the information necessary to demonstrate that the methods, materials, and techniques proposed to be used and are capable of accomplishing their stated objectives in protecting the environment and public health and safety. The information may consist of results of actual testing, modeling, documentation by credible independent testing and certified organizations, or documented applications in similar uses and settings.

F. **Certification.** All submitted information must be accurate, complete, and acknowledged as such by the signature of an authorized agent of the Permittee or applicant. Documents, plans, and reports submitted in support of applications must be signed and stamped by licensed professionals as required.

G. **Qualified Professional.** All data collection, analyses, modeling, design, inspection, operation, monitoring, synthesis of data to information, and documentation and reporting shall be conducted by qualified professionals.

H. **Independent Reviewer.** The Department may retain an independent reviewer to assist in the review of documents, plans, models, designs, studies, analysis, characterizations, applications, amendments, financial assurance mechanisms, field operations, and any other submission. The costs of hiring an independent reviewer must be paid by the Applicant pursuant to 38 M.R.S. § 490-OO(2)(A).

I. **Additional Information.** If required by the Department to establish that the Applicant has met the minimum requirements of the rule, Act and permit to mine, the Applicant or Permittee shall provide any additional data, monitoring, testing, modeling, characterization, or additional synthesis and interpretation of submitted data, analysis, and information required by the Department.

J. **Public Health and Safety.** The Permittee and Applicant shall make adequate provisions for the protection of public health and safety.

20. Performance Standards

A. **General Requirements.** All mine operations and waste units shall be designed, constructed, operated and maintained during the development, operation, closure, and post-closure maintenance period in a manner that:

(1) Meets the performance requirements for groundwater, surface water, air, soils, or surficial materials established under this rule;

(2) Minimizes acid generation, metal leaching, and acid rock drainage within the mining area;

(3) Provides structural stability;

(4) Protects public health and the environment; and

(5) Otherwise complies with applicable legal requirements.

B. Siting

(1) Mining operations may be placed in floodplains or flood hazard areas as long as they are designed, constructed, operated and reclaimed in a manner that complies with the approval criteria of the Natural Resources Protection Act, 38 M.R.S. § 480-A *et seq*. and the Department regulations implementing it. The Applicant must demonstrate that all development in these areas is secure from flooding and erosion under flood height and velocity conditions equal to or greater than the 500-year flood. Nothing in this paragraph limits the authority of the U.S. Army Corps of Engineers, Federal Emergency Management Agency, Maine Emergency Management Agency, the Land Use Planning Commission, or other regulatory bodies with jurisdiction over the relevant area or operation from limiting or prohibiting development in these areas.

(2) Buffers. Mining operations shall be designed, constructed, and monitored so that the operation is compatible with surrounding non-mining uses.

(a) Existing terrain and vegetation or vegetated berms must be used to diminish impacts of mining activities.

(b) Buffers must be marked or otherwise established in any area of the site where their construction is determined by the Department to be necessary to mitigate sound or visual impact, provide water quality treatment or for any other purpose before beginning operations.

(c) Mine waste units and beneficiation facilities must be set back a minimum of 1,000 feet from a property boundary or a public or private drinking water supply. Mine waste units and beneficiation facilities may not be located in the wellhead protection areas or source water protection areas of public water supplies.

(d) The limit of excavation must be set back a minimum of 1,000 feet from a public water system and 300 feet from a private water system and a property boundary. Upon receipt of written permission from the abutting property owners and all owners of property whose wells are located within 300 feet of the limit of excavation, the 300 foot setback may be reduced to 100 feet.

(e) All activities other than mine waste units and beneficiation facilities and the limit of excavation must be set back a minimum of 300 feet from a property boundary, a public or private drinking water system, or a public road. Upon receipt of written permission from the abutting property owner, the 300 foot property boundary setback may be reduced to 100 feet.

(f) The minimum setback requirements described above apply to any mining project; however, the Department can require a greater setback if submission materials or other information demonstrate an increased setback or buffer is necessary to protect the environment and public health and safety.

(3) Mining Excluded. Except as allowed under state and federal laws, no mining shall be conducted in or on the following:

(a) National and state parks;

(b) National wilderness areas;

(c) National wildlife refuges;

(d) Designated lands pursuant to 12 M.R.S. § 598-A, including but not limited to the Allagash Wilderness Waterway, state-owned wildlife management areas and public reserve lands and lots; and

(e) State or national historic sites.

(4) Surface Disturbance Prohibited. Only underground mining and material hauling shall be allowed within 1 mile of the jurisdictional limits of:

(g) National and state parks;

(h) National wilderness areas;

(c) National wildlife refuges;

(d) Designated lands pursuant to 12 M.R.S. § 598-A, including but not limited to the Allagash Wilderness Waterway, state-owned wildlife management areas and public reserve lands and lots;

(e) State or national historic sites;

(f) Any river designated pursuant to the federal Endangered Species Act as critical habitat for Atlantic salmon;

(g) One of the 66 great ponds located in the State's organized area identified as having outstanding or significant scenic quality in the "Maine's Finest Lakes" study published by the Executive Department, State Planning Office in October 1989; and

(h) One of the 280 great ponds in the State's unorganized or de-organized areas designated as outstanding or significant from a scenic perspective in the "Maine Wildlands Lakes Assessment" published by the Maine Land Use Regulation Commission in June 1987.

C. **Erosion and Stormwater Management.** All affected areas of the site must be designed, constructed, and operated so as to:

(1) Effectively control erosion. Erosion and sedimentation control practices must be in accordance with the *Maine Erosion and Sediment Control Best Management Practices (BMPs)*. The erosion and sedimentation control practices must:

(a) Maintain the stability of the site, this includes but is not limited to preventing unacceptable settling, subsidence, voids, caving, or slope failures. All excavated and reclaimed areas must be designed, constructed and stabilized to:

(i) Withstand natural geologic processes and climatic conditions without failure that would be a threat to public safety and the environment;

(ii) Minimize post reclamation visual contrasts between reclamation lands and adjacent lands and are appropriate for the final land use specified in the reclamation plan; and

(iii) Either exclude humans and wildlife, or provide safe ingress and egress at selected locations from any temporary or permanent water bodies resulting from the mining activities.

(b) Place overburden and other materials approved by the Department in a manner that promotes vegetation establishment.

(c) Stockpile and stabilize all topsoil until it can be used for reclamation.

(2) Effectively manage stormwater. Stormwater management practices must meet the standards of rules adopted pursuant to 38 M.R.S. § 420-D.

D. Underground Mine Openings. To the extent feasible and practicable, the Applicant and Permittee shall design, construct, operate and maintain underground mine openings to:

(1) Minimize the risk of unacceptable settling, subsidence, voids, or caving, and

(2) Prevent unauthorized entry.

E. Reactive Mine Material Characterization. The characterization and analysis of mine wastes required must include, but not be limited to, all mine materials, waste (overburden, ore, waste rock and tailings) and designated chemical materials potentially encountered, used or generated during metallic mineral mining or advanced exploration. These materials shall be analyzed and characterized as follows:

(1) Testing Frequency. Mine materials, waste and designated chemical materials characterization and analysis must identify the characteristics of the mine wastes. This analysis must evaluate the quantities, variability, physical, and chemical properties of mine waste necessary for predicting the potential environmental impacts of mine waste handling, storage, treatment, and disposal, and for determining specific treatment, disposal, and storage design. This evaluation must be conducted prior to the issuance of a permit and thereafter as determined by the Department and must include, but not be limited to, evaluation of the following:

(a) Changes in the character of the mine materials, ore, lean ore, waste rock, overburden, waste, and designated chemical materials managed at the site; and

(b) Changes in the design, operation, or management at the site which may potentially alter the characterization or the stability or other characteristics of tailings and other waste materials.

(2) Mine Waste Evaluation. Testing must be performed on representative samples of individual mine waste from the extraction and beneficiation process, and of composite mine waste or other materials where mixed storage or disposal of individual mining waste is proposed. The major components of mine waste characterization and analysis must include, but are not limited to, the following:

(a) Identification of all mine waste which will be disposed of, stored or handled at the site, or removed from the site including classification of waste types, estimation of the generation rates and volumes of each type, and an explanation of the ultimate disposition of each type;

(b) Chemical, petrological, and mineralogic analyses of the mine wastes;

(c) Description of expected particle size distributions of waste rock and analysis of particle size distribution of mill tailings;

(d) Determination of the potential for metal leaching and acid rock drainage for mine waste (waste rock, tailings, and mine walls). At a minimum, the characterization must consider the short-and long-term acid-producing characteristics of the mine waste, considering the acid-producing content of the materials, the particle size and particle form of the acid-producing material, and the spatial distribution of its particles, the neutralizing effect of host materials and the effects of weathering, erosion, and sedimentation; and

(e) Determination of the leaching potential of the mine wastes and determination of the composition of the resulting leachate.

(3) Test Methods. The Applicant shall describe in detail its proposed waste characterization program including, but not limited to, the methods of obtaining samples of mine waste, sample preparation, sample shipment, testing, and chain-of-custody methods employed in evaluating the mine waste characteristics, and must provide justification for the use of such methods. The metal leaching and acid-producing and neutralization potential must be determined by a static test method and confirmed by a kinetic test method. The Applicant shall submit its characterization work plan to the Department for review and approval.

F. Mine Waste Classification. Based on the mine waste characterization required above, the Applicant shall propose, subject to the approval of the Department, classification of each mine waste as a Group A, Group B, or Group C waste according to the following criteria:

(1) The mine waste has a net acid-producing potential or exhibits a characteristic of hazardous waste as defined in 06-096 CMR 850. Such waste shall be classified as Group A wastes.

NOTE: Group A wastes may include, but are not limited to, waste rock, tailings, and leachate derived from those wastes.

(2) The mine waste has no net acid-producing potential and may release soluble pollutants at concentrations which exceed performance requirements for groundwater or surface water. Such waste shall be classified as Group B waste.

(3) The mine waste does not have the potential to violate water quality standards other than sedimentation or turbidity. Such waste shall be classified as Group C waste.

G. Reactive Mine and Designated Chemical Materials Management Systems

(1) Reactive mine and designated chemical materials management systems must provide for containment, unless the material has been neutralized or stabilized and will not cause a direct

or indirect discharge of pollutants that could reasonably result in a condition of nonattainment of water quality standards or noncompliance with the performance standards of this Chapter.

(2) Reactive mine and designated chemical materials management systems must provide for the collection, treatment and disposal of any water containing mining activity contamination derived from reactive mine materials, designated chemical materials, or combinations of reactive mine and designated chemical materials with a reasonable potential of migrating beyond designated containment areas; in compliance with the Act, rule and permit to mine as well as other applicable state and federal standards. The use of active or passive treatment methods must be limited to no more than 30 years post-closure. The Permittee must design waste storage facilities capable of operating without such treatment after that time.

H. Containment Structures

(1) Containment structures include waste containments, tailings impoundments, water impoundments, and other on-site-constructed tanks and containments.

(2) Waste rock, waste containment, and tailings impoundments must be designed based on the results of the waste classification determined through the Mine Waste Evaluation report required in subsection 20(E) of this Chapter. Liner and leachate collection systems, if required, must meet the minimum design standards contained in section 21 of this Chapter.

(3) Containment structures must be designed, constructed, and maintained to prevent embankment overtopping, with adequate freeboard, during the Probable Maximum Flood (PMF) precipitation and snowmelt event considering maximum wind and fetch.

(4) Containment structures must be designed and constructed to be structurally stable. Containment structures built with an earthen component must have a minimum static factor of safety of 1.3 during construction and operation periods and 1.5 during the post-closure period. The stability assessment must include analysis of potential failure planes which pass through or along: the foundation soils, the waste mass, and/or liner system components for both static and seismic conditions. The stability assessment must be supported by corroborative field and laboratory data that defines the site geology and hydrogeology, the geotechnical characteristics, the waste mass characteristics, and the geosynthetic characteristics, as applicable. If approved by the Department, strength gain of the foundation soils may be taken into account when addressing the stability requirements.

(5) Containment structures must be designed and constructed to be structurally stable during seismic events, subject to the following requirements:

(a) The minimum factor of safety must be 1.1 when designed to withstand the maximum horizontal acceleration in lithified earth material having a 90% probability of not being exceeded in 50 years. This requirement applies to construction and operation periods;

(b) The minimum factor of safety must be 1.0 when designed to withstand the maximum horizontal acceleration in lithified earth material having a 90% probability of not being exceeded in 250 years. This requirement applies to the post-closure period;

(c) The maximum bedrock horizontal acceleration must be determined based on a seismic hazard map or a site-specific seismic risk assessment and must be modified to account for the influence of the site soils, engineered components, and the waste mass; and

(d) Unless otherwise approved by the Department, the seismic stability assessment must include an evaluation of permanent deformation, an evaluation of waste and soil strength loss due to cyclic loading, and an evaluation of liquefaction potential.

(6) Containment structures must contain adequate slope protection to prevent erosion.

(7) Containment structures must be designed, constructed and maintained to promote contemporaneous reclamation.

I. **Storage Piles.** The Applicant and Permittee shall design, construct, operate and maintain storage piles:

(1) Such that the function and stability of the piles are suitable to their purpose and they do not represent a substantial threat to the environment and public health and safety;

(2) In a manner that promotes contemporaneous reclamation;

(3) Such that runoff water is removed by drainage control structures and receives treatment appropriate to the nature and volume of the water and the nature of the material stockpiled;

(4) With a cover which shall be used to isolate reactive mine materials from precipitation and air as soon as practicable;

(5) In a manner that provides for segregation of designated chemical and reactive mine materials, metallic mineral product, ore, tailings, lean ore, waste rock, surface overburden, and topsoil, as applicable, unless these materials are placed together for a beneficial purpose as described in the mining or environmental protection, reclamation, and closure plan or mining plan; and

(6) Such that each storage piles are constructed, operated, and monitored according to standard operating procedures consistent with these rules and these practices are documented with detailed designs, schedules and monitoring and operating procedures approved by the Department.

J. **Water Management Systems.** The Applicant and Permittee shall design, construct, operate, and maintain water management systems:

(1) So as to minimize disturbances to the prevailing hydrologic balance of the affected area;

(2) In a manner that does not cause or increase the potential for injury to life or damage to property or natural resources due to hydrologic changes compared to baseline conditions;

(3) In a manner that mining activity withdrawals of groundwater or surface water will not adversely affect existing uses or natural resources and that comply with the Natural Resources Protection Act, 38 M.R.S. § 480-A *et seq.*, and the Water Classification program, 38 M.R.S. §§ 464-470;

(4) Such that pollutants attributable to mining activities do not cause or contribute to non-attainment of applicable water quality criteria in surface water resources and comply with the terms and conditions of applicable waste discharge licenses issued pursuant to 38 M.R.S. § 413;

(5) Such that pollutants attributable to the mining operation do not contaminate groundwater resources of the affected area;

(6) Such that surface water and stormwater from the mining area are managed consistently with subsections 20(C), 20(G), and 20(H), above; and

(7) Such that run-on/runoff control systems include:

(a) A run-on control system to prevent or control surface water flow onto the mine waste unit during the peak discharge from at least a 24-hour, 500-year storm;

(b) A runoff control system to collect, control and treat surface water from the mine waste unit of at least the water volume resulting from a 24-hour, 500-year storm; and

(c) Surface impoundments associated with waste units, if any, that are designed, constructed, maintained, and operated to prevent overtopping as a result of a 24-hour, 500-year storm event. An emergency overflow spillway shall be provided for storm events equivalent to the 24-hour, 500-year storm.

K. Blasting. The Applicant must ensure that the blasting is conducted in accordance with applicable standards of the State Fire Marshal's Office.

(1) The Permittee shall use sufficient stemming, matting or natural protective cover to prevent flyrock from leaving property owned or under control of the Permittee or from entering protected natural resources or natural buffer strips. Crushed rock or other suitable material must be used for stemming when available. Native gravel, drill cuttings, or other material may be used for stemming only if no other suitable material is available.

(2) The maximum allowable airblast at any inhabited building not owned or controlled by the Permittee may not exceed 129 decibels peak when measured by an instrument having a flat response (+ or - 3 decibels) over the range of 5 to 200 hertz.

(3) Monitoring of airblast levels is required in all cases for which a preblast survey is required by paragraph 4. The Department may waive the monitoring requirement if the Permittee secures the permission of affected property owners to increase allowable airblast levels on their property and the Department determines that no protected natural resource will be adversely affected by the increased airblast levels.

(4) A preblast survey is required for all blasting and must extend a minimum radius of 1/2 mile from the blast site. The preblast survey must document any preexisting damage to structures and buildings and any other physical features within the survey radius that could reasonably be affected by blasting. Assessment of features such as pipes, cables, transmission lines and wells and other water supply systems must be limited to surface conditions and other readily available data, such as well yield and water quality. The preblast survey must be conducted

prior to the initiation of blasting at the operation. The Permittee shall retain a copy of all preblast surveys for at least one year from the date of the last blast on the mining area.

(5) Blasting may not occur in the period between sundown and sunrise the following day or in the period between 7:00 p.m. and 7:00 a.m., whichever is greater. Routine production blasting is not allowed in the daytime on Sunday. Detonation of misfires may occur outside of these times but must be reported to the Department within 5 business days of the misfire detonation. Blasting may not occur more frequently than 4 times per day. Underground production blasting may be exempted from these requirements provided that a waiver is granted by the Department.

(6) Sound from blasting may not exceed the following limits at any protected location:

Number of Blasts Per Day	Sound Level Limit
1	129 decibels
2	126 decibels
3	124 decibels
4	123 decibels

(7) The maximum peak particle velocity at inhabitable structures not owned or controlled by the Permittee may not exceed the levels published by the United States Department of the Interior in "Bureau of Mines Report of Investigations 8507," Appendix B, Figure B-1, dated 1980. The Department may grant a variance to allow ground vibration levels greater than 2 inches per second on undeveloped property not owned or controlled by the Applicant if the Department determines that no protected natural resource, unusual natural area or historic site will be adversely affected by the increased ground vibration levels. If inhabitable structures are constructed on the property after approval of the development and prior to completion of blasting, the developer immediately must notify the Department and modify blasting procedures to remain in compliance with the standards of this subsection.

(8) A record of each blast, including seismographic data, must be kept for at least one year from the date of the last blast, and must be available for inspection at the mining site or at the offices of the owner or operator if the mine has been closed, completed or abandoned before the one-year limit has passed. The record must contain at a minimum the following data:

(a) Name of blasting company or blasting contractor;

(b) Location, date and time of blast;

(c) Type of material blasted;

(d) Number and spacing of holes and depth of burden or stemming;

(e) Diameter and depth of holes;

(f) Type of explosives used;

(g) Total amount of explosives used;

(h) Maximum amount of explosives used per delay period of 8 milliseconds or greater;

(i) Maximum number of holes per delay period of 8 milliseconds or greater;

(j) Method of firing and type of circuit;

(k) Direction and distance in feet to the nearest dwelling, public building, school, church, or commercial or institutional building neither owned nor controlled by the Permittee;

(l) Weather conditions, including factors such as wind direction and cloud cover;

(m) Height or length of stemming;

(n) Amount of mats or other protection used;

(o) Type of detonators used and delay periods used;

(p) The exact location of each seismograph and the distance of each seismograph from the blast;

(q) Seismographic readings;

(r) Name and signature of the person operating each seismograph; and

(s) Names of the person and the firm analyzing the seismographic data.

(10) Prior to blasting, the Permittee shall develop and implement a plan that provides an opportunity for prior notification of a planned blast for all persons located within 1,000 feet of the blast site. Notification may be by telephone, in writing, by public notice in a newspaper of general circulation in the area affected or by other means identified in the plan. The plan must be in writing and available for inspection by the Department.

21. Waste Unit Design Standards

A. Requirements. Waste units shall be designed to prevent the direct or indirect discharge of pollutants that could reasonably result in a condition of nonattainment or noncompliance with the performance standards of this Chapter.

(1) The design of waste units for the management of Group A mine waste shall provide for a liner system which includes a composite liner. A leachate collection and removal system above the composite liner shall be incorporated into the design. A composite liner shall consist of the following:

(a) A clay or compacted till bottom liner having a permeability of less than or equal to 1×10^{-6} cm/sec with a minimum 2 foot thickness; and

(b) A High Density Polyethylene (HDPE) liner having a minimum thickness of 60 mils.

(2) The design of waste units for the management of Group B mine waste must provide for a clay or till bottom liner having a permeability of less than or equal to 1×10^{-7} cm/sec with a minimum 3 foot thickness. A leachate collection and removal system above the liner must be incorporated into the design.

(3) Leachate ponds must be provided with the composite liner system described in subsection 21(A)(1) of this Chapter except that leachate collection and removal are not required. An emergency spillway must be included in the design.

(4) If stabilization of Group A and Group B mine waste may be ineffective in preventing pollutant release, the design must include a system for detection of leaks and leak recovery, or other engineered system as may be required by the Department.

(5) If a mine waste unit will generate leachate, the Applicant shall provide a description of the leachate management methods for the unit, including the process flow diagram for water use and reuse at the site, and a water balance for each unit. In evaluating the water balance for each unit, the volume of leachate generated must be based on the most recent historical annual precipitation data, with a minimum of a 15-year database, and the leachate storage volume must include capacity for the precipitation from a 24-hour, 500-year storm falling on the mine waste unit and the leachate storage pond.

(6) Leachate collection and removal systems shall be designed to maintain 12 inches or less of leachate head on the liner system.

(7) The Department reserves the right to require additional and/or alternative waste unit design elements if necessary to protect the environment and public health and safety.

B. Alternative Design Process. Alternatives to the minimum design standards and requirements of this section may be proposed by the applicant. A variance request is not required for proposals which meet the requirements of this paragraph. The Applicant shall submit the following documentation to clearly and convincingly demonstrate technical equivalency of a proposed alternative:

(a) A discussion of the benefits of the proposed alternative technology;

(b) A discussion of the risks and drawbacks of the proposed alternative technology;

(c) An assessment of similar applications of the proposed alternative technology;

(d) A demonstration that the alternative technology will provide equal or superior performance to the component it is proposed to replace, or that its inclusion within a system will result in equal or superior performance of that system;

(e) An assessment of the feasibility of constructing the proposed alternative, including the ability to provide an adequate level of quality assurance and quality control. A demonstration of the feasibility of construction may be required; and

(f) An assessment of the likelihood that the proposed alternative will perform as designed through operations, closure, and post-closure periods.

22. Monitoring and Reporting Requirements

A. The Permittee shall conduct monitoring in accordance with this Chapter, the mining permit, and the Act. The Applicant shall prepare an integrated environmental monitoring plan for the site.

(1) The plan detailing how the Applicant proposes to comply with this section must be submitted with the application and will be reviewed and approved by the Department as part of the application. All sample collection and analysis conducted under the monitoring program must specify sampling frequencies, procedures and techniques for sample collection, sample preservation and shipment, sample data sheets, analytical procedures and detection limits, chain-of-custody control, data validation and reporting methods, sampling and analytical quality assurance, quality control procedures, sampling location map, and other information determined to be necessary by the Department. The monitoring plan must be prepared by a qualified professional.

(2) Parameters analyzed from any samples at each monitoring point shall be based on the potential threat from the mine, mine waste or designated chemical materials used on the site, the transformation and degradation products of those materials as well as general indicator parameters of contamination associated with a release of those materials.

(3) Baseline conditions specific to each monitoring location and parameter identified in the monitoring plan must be established such that a statistically significant change from baseline conditions trend indicative of declining water quality, or other evidence of adverse environmental impact may be identified in the compliance monitoring dataset.

B. The monitoring plan must include the following elements:

(1) Groundwater. The following groundwater monitoring criteria apply to all mining operations:

(a) The monitoring system must have a sufficient number of groundwater wells, at appropriate depths and locations, to detect contamination of groundwater. Downgradient monitoring wells must be placed as close to all mining operations as practicable, based on the site hydrogeology, access to the monitoring location, and other factors determined to be relevant by the Department.

(i) The points to be monitored for compliance with the groundwater standards for the purposes of 38 M.R.S. § 490-MM(5) are the downgradient boundaries of all mining operations as they exist at the time any sample is collected. Areas of the site proposed and approved for future use or stripped and graded or otherwise prepared for future construction are not considered mining operations for the purposes of compliance with this standard. Establishment of additional monitoring locations and abandonment of wells and other monitoring locations, in accordance with procedures described in this Chapter, may be required, and applicants should design monitoring networks with this in mind. Any new monitoring used as a compliance point must be established to allow collection of at least one year of data prior to their becoming points of compliance;

(ii) The Department may require groundwater monitoring within any mining area it determines to be necessary to assess the performance of pollution control measures or

the potential for contamination as defined at 38 M.R.S. § 490-MM(5) outside any mining area;

(iii) The Department may require groundwater monitoring at any location to determine the potential for groundwater discharges to surface waters that would cause or contribute to nonattainment of applicable water quality criteria. Failure of groundwater to meet applicable water quality criteria at points of baseflow discharge constitutes contamination as defined at 38 M.R.S. § 490-MM(5);

(b) Background groundwater quality monitoring well(s) must be established in an area or areas unaffected by mining operations and hydrologically upgradient of the mining areas to be monitored. Background groundwater quality may be measured at wells that are not upgradient of mining operations if those locations are determined to be representative by the Department;

(c) Wells must be cased to maintain the integrity of the bore hole. Casing must be screened or perforated and the annular space packed with gravel or sand, where necessary, to enable collection of samples. Any annular space above the sampling depth must be sealed to prevent contamination of samples and groundwater;

(d) Design, location, installation, development, and decommissioning of any monitoring wells, piezometers, and other measurement, sampling, and analytical devices require review and approval by the Department prior to action by the Applicant and must be documented in the Mining and Reclamation Reports required pursuant to section 26(B) of this Chapter;

(e) Monitoring wells, piezometers, and other measurement sampling, and analytical devices must be operated and maintained so that they conform to design specifications throughout the life of the monitoring program;

(f) The number, spacing, location and depths of monitoring wells and other instruments must be proposed by the Applicant and must be approved by the Department prior to installation. The Department may require additional monitoring wells or other instruments it determines to be necessary. The Applicant shall consider the following in its monitoring system design:

(i) Characterization of saturated and unsaturated geologic units and fill materials overlying and underlying the uppermost aquifer including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, and porosities; and

(ii) Characterization of the uppermost aquifer including, but not limited to, the thickness, flow rate, and flow direction;

(g) Parameters for which the Applicant must monitor include, but are not limited to, those for which groundwater performance requirements are established. Changes in parameters to be monitored may be made as determined by the Department;

(h) Monitoring must take place at least quarterly during the life of the mine, including any post-closure maintenance period or more frequently if determined to be necessary by the Department. Less frequent monitoring may be performed as approved by the Department.

The monitoring results must be submitted to the Department within 30 days of the end of each quarter in a format approved by the Department; and

(i) Any revisions to the plan are subject to review and approval by the Department.

(2) Surface Water and Sediments

(a) The Applicant shall establish a surface water monitoring system that is capable of detecting direct or indirect discharges to surface waters from mining operations, including, but not limited to, discharges licensed under 38 M.R.S. § 413, of any parameter for which a performance requirement has been established or indicator parameters as determined to be necessary by the Department. This system must be capable of detecting any exceedance of performance requirements.

(b) The Applicant shall establish a sediment monitoring system capable of detecting accumulations of pollutants in sediments within water bodies affected by mining operations.

(c) Surface water and sediment monitoring programs are subject to review and approval of the Department and must, at a minimum, meet the following criteria:

(i) Provision for surface water and sediment monitoring to determine background levels in the receiving water. Background samples must be collected as close in time as possible to the collection of samples at the monitoring points; and

(ii) For the surface water and sediment monitoring program, specification of the monitoring frequencies for each parameter and media. Monthly monitoring is required for all monitored parameters in surface water unless a change in parameters or frequency of monitoring is approved by the Department. At a minimum, annual monitoring must be required of sediments.

(3) Hydrology. Hydrology of the mining area and affected area must be monitored where mining activities have reasonable potential for measurable impact on surface water and groundwater.

(4) Biological Resources. Biological resources of the background locations, mining areas and affected areas shall be monitored where mining activities have a reasonable potential for measurable impact to these resources. This monitoring must include analyses of fish tissue, fish population, invertebrate population and abundance, and any other measure of ecological health determined to be necessary by the Department.

(5) Monitoring, except baseline monitoring activities, must start at the time when extraction or removal of metallic minerals, overburden or development rock is initiated pursuant to an advanced exploration or mining permit.

(6) Unless the Department determines that a reduction or cessation is appropriate, monitoring must continue for at least 30 years after closure of the mine subject to the following conditions:

(a) If the mining-related activity or disturbance resulting in the reasonable potential for measurable impact has ceased and the results from post-closure monitoring confirm that

there is no significant potential for future impact resulting from the mining operation, the monitoring period may be reduced or terminated.

(b) If the mining-related activity or disturbance has ceased and the resulting impacts have been reclaimed or mitigated in conformance with mining permit conditions and the results from post-closure monitoring confirms that there is no significant potential for future impact resulting from the mining operation and that the implemented reclamation or mitigation measures are self-sustaining, the monitoring period may be reduced or terminated.

(c) The Permittee may provide the Department a written request to terminate all or specific aspects of monitoring not less than 18 months before the proposed termination date and if such a request is made must provide supporting data and information demonstrating that the conditions required to terminate monitoring have been achieved. The Department may reduce the 18-month notification requirement on a case-by-case basis.

(d) The Department may reduce the default 30-year post-closure monitoring period at any time upon determining that there is a reasonable assurance of no significant potential for environmental, natural resource, public health and safety, and/or property damage impacts resulting from the mining operation and that implemented reclamation or mitigation measures are self-sustaining.

(e) The Department shall extend the post-closure monitoring period in increments of up to 20 years for all or specific aspects of monitoring unless the Department determines, approximately one year before the end of a post-closure monitoring period or post-closure incremental increase to the monitoring period, that there is a reasonable assurance of no significant potential for environmental, natural resource, public health and safety, and/or property damage impacts resulting from the mining operations and that implemented reclamation or mitigation measures are self-sustaining.

(7) Monitoring methods, parameters, frequencies and locations will be reviewed and are subject to approval by the Department and shall be sufficient to verify that potential and actual mining-related impacts, including those identified in the environmental impact assessment, are avoided, or where unavoidable are adequately minimized, compensated for, or mitigated and that reclamation is effective and complete and self-sustaining as stipulated in the mining permit application documents, the mining permit and the rule.

(8) At least one reference monitoring location shall be established outside of the mining area and the affected area with the purpose of providing data relevant to non-mine related influences on monitored parameters and conditions.

(9) The Permittee shall propose to the Department for approval, as part of the permit application, benchmarks indicative of statistically significant change from baseline conditions for each parameter at each monitoring point, and where appropriate, for specific time periods such as hydrologic season.

(10) The Permittee shall submit all monitoring data to the Department in a format specified by the Department. Monitoring data must be submitted to the Department within 10 days of its receipt by the Permittee.

(11) The Permittee shall notify the Department at such time as monitoring indicates that one or more of the following compliance standards has been exceeded or a statistically significant change has been identified at any monitoring station:

(a) For surface water, the compliance standards are based on ambient water quality criteria for toxic pollutants, or applicable water quality-based permit conditions established pursuant to 38 M.R.S. § 413 and §§ 464-469.

(b) For ground water, the compliance standards are based on the primary drinking water standards adopted pursuant to 38 M.R.S. § 2611, applicable water quality-based license conditions established pursuant to 38 M.R.S. § 413 and §§ 464, 465-C, and 470 or ground water quality benchmarks.

(c) For biological criteria, compliance standards are established pursuant to 38 M.R.S. § 413 and §§ 464-469, baseline conditions, or as determined by the Department.

(12) The notification must consist of:

(a) A table and chart presenting all data for that monitoring location;

(b) Data from associated reference or upgradient monitoring locations;

(c) The associated standard or benchmark;

(e) An analysis of that data relative to the presence or absence of a statistically significant trend indicative of declining water quality or other evidence of adverse environmental impact; and

(f) An analysis of the probability that an observed statistically significant change indicative of declining water quality or other evidence of adverse environmental impact from baseline conditions is related to the mining operation.

(13) The Department must be notified within 24 hours of the failure to meet a compliance standard at any monitoring location. The Department may require the Permittee to resample the location or locations to confirm the result. At such time that results from compliance monitoring indicate that a compliance standard has been exceeded for two or more consecutive monitoring samples, the Permittee shall immediately take action and within two weeks submit a response action plan to the Department for approval. The response action may include, but not be limited to:

(a) Increased monitoring;

(b) Source investigation;

(c) Corrective action;

(d) Modification of active or post-closure mining activity; or

(e) Other action as determined to be necessary by the Department.

(14) The response action shall continue, and may be amended from time to time, until such time as the Department determines that successful corrective action has occurred.

23. Reclamation. Reclamation shall be completed on all mining areas and if necessary any affected area.

A. A Permittee shall commence and complete reclamation of a mining area and, if necessary, any affected area, consistent with mining permit conditions and the Department-approved environmental protection, reclamation and closure plan.

B. Upon written request of a Permittee, the Department may approve with conditions an extension of time to begin or complete final reclamation.

C. To the extent feasible and practicable and considering changes caused by non-mining activities or other natural events, the Permittee shall reclaim the mine and affected area to the ecological conditions that approximate pre-mining conditions.

D. Contemporaneous reclamation of the mining area must be conducted consistent with the performance standards of this subchapter.

E. Safe ingress and egress must be provided for people and wildlife to water bodies accessible after reclamation.

F. Structures and equipment not required in meeting reclamation goals must be dismantled and removed from the mining area.

G. The prevailing hydrologic balance of the affected area must be restored to conditions that approximate baseline conditions.

H. To the extent practical and feasible, intermittent and perennial streams diverted during mining activity must be returned to original channels or, if the original channel has been disturbed or destroyed, to a reconstructed channel having grades, pools (substrate, floodplains,) and meanders comparable to baseline conditions.

I. Surface water and storm water from the mining area must be managed to ensure that:

(1) Erosion and sedimentation control practices are in accordance with the *Maine Erosion and Sediment Control BMPs*;

(2) Water impoundments are removed unless necessary for pollution control or to meet other conditions of the permit; and

(3) Peak storm water discharge from the area does not exceed baseline conditions.

J. Vegetation appropriate to the approved final post-mining land use must be established.

(1) Introduced, naturalized or nonnative plant species may be used only if they are suitable to the post-mining land use and approved by the Department.

(2) Where establishment of vegetative cover is required by the reclamation plan, the land must be reclaimed with a diverse, self-regenerating, no- or low-maintenance cover of native

vegetation that is appropriate to the safety, stability, environmental protection, and natural resource goals of the plan.

(3) Transitional vegetative cover may be used to provide the greatest probability of success in plant establishment considering site conditions as well as slope stability, erosion control, and hydrologic and water quality goals associated with successful establishment of vegetative cover.

K. The Permittee shall create and attach enforceable covenants on the mining area in accordance with the Uniform Environmental Covenant Act at 38 M.R.S. § 3001 *et seq.* These covenants must limit future use of the mining area such that the goals of this Chapter, the Act, and the permit to mine are maintained or enhanced until there is no unreasonable threat to public health and safety or the environment, and there is no potential for surface water or groundwater contamination resulting from mining activities remaining in perpetuity within the former mining operation.

L. Following closure and reclamation, the landowner or lessee of a mining area in an unorganized territory may petition the Maine Land Use Planning Commission for rezoning to an appropriate subdistrict designation.

M. All pitwalls, open pits and mine openings shall be adequately marked or fenced, and all markers and fencing must be maintained by the Permittee to provide notice to the public of a dangerous condition.

N. Highwalls, or quarry faces, must be treated in such a manner as to leave them in a condition that minimizes the possibility of rock falls, slope failures and collapse. A highwall that is loose must be controlled by the use of blasting or scaling, the use of safety benches, the use of flatter slopes or reduced face heights or the use of benching near the top of the face or rounding the edge of the face.

O. Drill and auger holes, adits, shafts, underground workings and pits must be permanently secured.

P. All unused fuel, designated chemical materials and explosives must be removed from the mine site in accordance with applicable rules.

24. Closure and Post-Closure Maintenance Standards

A. Closure Maintenance Criteria

(1) Performance Standards

(a) The Applicant shall design the closure of each mine waste unit to minimize the need for maintenance, and to control the release of mine waste and constituents into the air and the groundwater and surface water, and to ensure protection of public health and safety, and the environment. Closure activities must:

(i) Meet performance requirements;

(ii) Comply with design, monitoring and operating criteria approved in the closure plan for the unit; and

(iii) Comply with the general technical requirements below.

(b) The Permittee shall undertake the following activities:

(i) Provide certification by a qualified professional(s) that the mine waste unit, given its location, composition, and construction, is designed to meet current standards of practice for geotechnical engineering;

(ii) Institute or maintain a run-on/runoff control system that meets the requirements of this Chapter;

(iii) Implement and maintain monitoring systems as approved in the closure plan; and

(iv) Close surface impoundments used to manage Group C mine wastes in a manner that will minimize erosion and the threat of water quality degradation from sedimentation.

(c) For surface impoundments, ore leaching facilities including associated solution ponds, and collection systems including trenches, piping, leachate collection systems, and equipment, which contain leach solutions, the Permittee shall ensure the following:

(i) Water that is not to be recycled for processing or used for closure purposes under subsection 24(A)(3)(d) of this Chapter shall be treated and disposed of in a manner that ensures compliance with the performance requirements and shall in any event comply with the terms and conditions of the permit; and

(ii) Run-on/runoff control and leachate collection and management systems must continue until runoff and leachate no longer contain constituents in concentrations above those described in the performance requirements for a period of time specified in the permit or otherwise provided by the Department.

(2) Closure Plan

(a) A closure plan must be submitted at the time of application for a permit. At a minimum, the plan must include the following information for each mine waste unit:

(i) The methods, designs, procedures, and processes necessary to satisfy the closure performance standards for each mine waste unit;

(ii) An estimate of the maximum capacity and maximum volume of mine waste that can be managed in the unit at any time during the life of the mine waste unit;

(iii) A description of activities required to close leaching operations, including compliance with the standards at the time of closure;

(iv) A schedule of closure activities; and

(v) A detailed cost estimate of closure activities.

(b) Closure plans must be amended to reflect applicable changes in unit design, operations, or mine waste management technology, and applicable legal requirements, at intervals not to exceed 5 years.

(c) The closure plan for each mine waste unit must minimize the onsite and offsite use or contact with mine waste if such use or contact would pose a significant risk to the environment or public health and safety.

(d) A copy of the closure plan must be kept at the site or at an alternate location approved by the Department until the post-closure maintenance period has ended.

(3) Closure Design Requirements

(a) Closure design must be based on the following factors:

(i) The geology and geologic setting of the unit;

(ii) The character of the waste, including waste treatment;

(iii) The potential for and degree of contamination of the environment at or in the vicinity the mining operation, if applicable;

(iv) Corrective action in place or planned, if applicable;

(v) The operating practices at the waste unit;

(vi) The geographic location of the unit; and

(vii) Any other factors which are necessary for an informed determination of an appropriate design.

(b) The closure design must minimize maintenance and control the release of contaminants to ensure that performance requirements are met.

(c) Final closure requirements for dry mine waste management units are as follows:

(i) Final cover for a mine waste unit must have a permeability less than or equal to the permeability of the primary liner system;

(ii) The cover must be designed and constructed to function with the minimum maintenance possible;

(iii) Closed mine waste units must be graded and maintained to prevent ponding and to divert surface drainage from covered wastes;

(iv) Areas with slopes greater than 10%, surface drainage courses, and areas subject to erosion by water and wind must be protected to prevent such erosion; and

(v) No discharge to surface or groundwater may be allowed except as licensed by the Department.

(d) Final closure requirements for wet mine waste management units are as follows:

(i) Depth of water and saturated cover, if applicable, over the waste must be maintained;

(ii) Embankments around the closed unit must be maintained;

(iii) Water column mixing through wave action and turnover must be minimized as necessary to control acid generation and leaching of pollutants; and

(iv) No discharge to surface or groundwater shall be allowed except as licensed by the Department.

(e) A protected, permanent benchmark must be established on each closed mine waste unit. This benchmark shall be shown on all recorded drawings.

(4) Closure Trigger

(a) Closure must begin if for the preceding 12 months the mine waste unit has not received for disposal more than 10% of the average annual volume of waste received during the mine life to date as measured from the arrival of a substantial quantity of waste at that mine unit and not including time elapsed during any suspension of mining, unless the Permittee has applied for the extension described in subsection 24(A)(4)(b) below.

(b) The Department may grant an extension to the initiation of closure if the Permittee demonstrates that:

(i) The mine waste unit is planned to be used within the next 7 years;

(ii) The mine waste unit is in compliance with performance, design, and operating requirements; and

(iii) The mine waste unit will continue to comply with performance, design, and operating requirements during the extension.

(c) The Department may grant a 12-month extension, up to a maximum of seven extensions.

(5) Certification of Closure

(a) Within the 90-day period following closure of the mine waste unit, the Permittee must submit certification to the Department verifying that closure has been completed in accordance with an approved closure plan.

(b) Certification shall be based on a review of the mine waste facility by a qualified professional approved by the Department, and also made by a responsible officer of the Permittee and an inspection of the facility by the Department.

B. Post-Closure Maintenance Criteria

(1) Applicability. Following certification of the closure, the Permittee shall commence post-closure maintenance for the closed mine waste unit.

(2) Performance Standards

(a) The Permittee shall conduct post-closure maintenance activities to ensure the continued protection of public health and safety, and the environment, and to ensure the performance requirements continue to be met.

(b) Site access during the post-closure maintenance period must be controlled as necessary to prevent the removal of mine waste and ensure continued effectiveness of closure and post-closure maintenance activities.

(c) Post-closure land uses shall not impair the integrity of containment structures.

(3) Requirements

(a) The Department may require the Applicant to conduct, at a minimum, any or all of the following activities during post-closure maintenance:

(i) Periodic sampling of the mine waste as necessary to characterize the mobilization or conversion of mine wastes or parameters;

(ii) Inspection and maintenance activities necessary to maintain the structural and chemical stability of the mine waste unit;

(iii) Continued operation and maintenance of run-on/runoff control systems and leachate management systems, if any;

(iv) Continued operation and maintenance of groundwater and surface water monitoring stations and other monitoring locations; and

(v) Any other measure necessary to prevent a violation of a performance standard or other legal requirement and otherwise to protect public health and the environment.

(b) All post-closure monitoring activities conducted pursuant to this section shall continue until such time as the Department provides written approval for their cessation. In addition, the Department may alter post-closure requirements in response to monitoring information or other assessments.

(c) Mine waste units that have been closed may be reactivated or re-utilized only under a new or amended permit. The Permittee shall ensure that:

(i) Operations conform to the performance requirements, design operating criteria, and monitoring requirements of this Chapter; and

(ii) If mining wastes remain in the mine waste unit following the removal of materials for additional beneficiation, or at the completion of additional storage or disposal activities, the mine waste unit is closed in compliance with the requirements of this section.

(d) If any performance requirement is not met, the Permittee shall develop and implement a corrective action plan pursuant to section 30(B) of this rule.

(4) Post-Closure Maintenance Plan

(a) The Applicant shall prepare and submit a detailed post-closure maintenance plan as part of the application. At a minimum, the plan must include the following information:

(i) A description of activities and frequency of activities necessary to satisfy the performance standards;

(ii) A detailed estimate of post-closure maintenance costs;

(iii) A description of the planned use of the property to satisfy the post-closure maintenance performance standards, including the following information:

(A) Prevention of exposure of mine waste or constituents to the environment, unless such exposure would pose no significant risk to health or environment and is within licensed limits;

(B) Continued maintenance of the structural and operational components of closure and post-closure; and

(iv) The name, address, and telephone number of the Permittee's contact during the post-closure maintenance period.

(b) A copy of the post-closure maintenance plan shall be kept at the mine waste unit or alternate location as approved by the Department throughout the post-closure maintenance period.

(5) Length of the Post-Closure Care Period. The post-closure care period for Group A and Group B wastes must end 30 years from the time of closure certification, provided the Department determines the mine waste unit has been closed in compliance with the performance requirements of this Chapter and the post-closure performance standards of this section, and that the site will continue to remain in compliance with such standards. The post-closure care period for Group C waste must be 5 years from the time of closure certification.

(6) Deed Notation

(a) During the first year following closure certification the Permittee shall record a notation on the deed to property, or other instrument normally examined during a title search, if any mine waste or constituent remain at the site.

(b) The deed notation must state that the land has been used for the management of mine waste, that mine waste or constituents remain at the mine waste unit and, if applicable, that land use is restricted.

(7) Post-Closure Certification

(a) After completion of post-closure maintenance for the mine waste unit, the Permittee shall submit certification to the Department verifying completion of post-closure maintenance. All inspection records and reports pertaining to certification shall be submitted to the Department.

(b) The certification must be based on a review of the mine waste unit by a qualified professional approved by the Department and executed by a responsible officer of the Permittee and an inspection of the facility by the Department.

(c) Approval of certification of the completion of postclosure maintenance of a waste unit by the Department does not release the Permittee from any subsequent corrective action requirements or other legal responsibility including the requirement for any monitoring determined to be necessary by the Department.

Subchapter 6: MINING INSPECTION, RECORDKEEPING AND REPORTING REQUIREMENTS

25. Inspection and Maintenance. The Permittee, using qualified professionals, shall inspect all phases of the mining operation to ensure compliance with the design and construction specifications, standard operating procedures, the mining permit, the rules and the Act. Nothing in this section limits the ability of the Department to conduct inspections in any area of the property or to require corrective actions to address deficiencies identified in the monitoring data or as a result of such inspections.

A. A Permittee shall allow all inspections and comply with maintenance and monitoring requirements contained in the permit.

B. Each phase of mine construction must be inspected by qualified professionals in accordance with the Quality Assurance Plan (QAP) approved by the Department. For construction of containment structures, storage piles, and impoundments, Construction Quality Assurance (CQA) must include continuous site inspections by the CQA personnel. Inspection, testing, and certification must be done by CQA personnel separate from the Permitee.

(1) For the purposes of this section, separate from the Permitee means CQA personnel are not in the direct employment of the Permittee. Direct employment of the owner/operator does not include CQA personnel employed by a company under a contractual relationship with the owner/operator, provided that the CQA personnel are employed by a company that:

(a) Offers and performs quality assurance services for other companies not affiliated with the owner/operator; and

(b) Has a management structure that exists and operates separately from the owner/operator, such that CQA personnel are not directly compensated by, and are completely free of any direct reporting obligation to the owner/operator.

(2) All other phases of mine construction must be inspected by qualified professionals and the inspections must be conducted with the frequency and level of detail and documentation necessary to allow the qualified professional to certify that the structures were constructed consistent with the design.

(3) Mine operations must be inspected by qualified professionals in order to verify that the mine is operated consistent with permit requirements and that structures and practices designed to protect natural resources, the environment and public health and safety are functioning as designed, intended and required by the mining permit, the rule and the Act, and not susceptible to failure due to significant weather, seismic or other events.

(4) Inspection and maintenance requirements and schedules for the operation, reclamation and closure phases of the mining operation. These requirements must shall at a minimum apply to any feature or structure that represents a potential threat to natural resources, the environment and public health and safety, as well as to hydrologic and biologic features in the mining and affected area.

(a) During the operation and reclamation period, the mining areas and affected areas must be inspected by qualified persons at least quarterly.

(b) During the post-closure monitoring period, the mining areas and affected areas must be inspected by qualified persons at least twice per year.

(c) Within 30 days of the inspections required under (a) or (b) above, the qualified person shall submit to the Permittee and the Department:

(i) Certification that the mining area and affected area are in good condition and in compliance with the mining permit, the rule, and the Act; or

(ii) Identification of the corrective measures that must be undertaken by the Permittee to reach compliance. Within 10 days of receipt of the necessary corrective measures, the Permittee shall propose a plan and schedule to the Department for review and approval for implementing the corrective measures.

26. Reporting Requirements

A. Requirements. A Permittee shall file with the Department an updated mining and reclamation report:

(1) On or before March 15th of each year;

(2) During the period the mine is operating;

(3) During suspension of mining operations; and

(4) During the post-closure monitoring period.

B. Mining and Reclamation Report. The mining and reclamation report must contain a description of mining and reclamation activities conducted during the preceding year, including:

(1) A description of the status of mining and reclamation;

(a) The types and amounts (tons) of materials moved from the ore body and to storage piles, including a distinction among ore, lean ore, overburden or development rock;

(b) The acreage disturbed;

(c) Changes to the beneficiation process and to tailings and waste disposal;

(d) The amount of metallic product (tons) produced at the facility;

(e) The amount of waste rock and tailings disposed of at the facility by disposal unit;

(f) The amount of leachate collected and treated from each disposal unit;

(g) An evaluation of the effectiveness of the leachate treatment and disposal system; and

(h) An update on mine waste characterization including a characterization of new rock types or formations encountered during mining that have not been previously characterized under section 20 of this Chapter.

(2) An update of the contingency plan:

(a) Documentation that the updated plan has been submitted to the municipality or county commissioners, as applicable; and

(b) A description of amendments to the contingency plan as a result of changes in mining and beneficiation.

(3) A description of reclamation conducted, including acreage and a discussion of the success of revegetation efforts;

(4) A report of monitoring results for the preceding calendar year;

(5) A list of the notifications required under section 27 of this Chapter, for the preceding calendar year;

(6) A description of any proposed amendments to the amount and type of financial assurance;

(7) A description of proposed mining, beneficiation, tailings disposal and reclamation activities; during the current year.

(8) A summary of inspection results; and

(9) An evaluation of the facility's operations to verify compliance with approved plans, licenses, and regulatory requirements. This evaluation must be performed either by qualified facility personnel or a qualified professional.

27. **Notification Requirements.** A Permittee shall promptly notify the Department and each municipality or county commissioners in the unorganized territory in which the mining area and the affected area are located of any incident, act of nature or violation of a permit standard or condition related to the mining operation that has created, or may create, a threat to the environment, natural resources, or public health and safety.

A. Notification to an authorized representative of the Department during normal business hours, or to the Department pollution emergency alerting system between 5 p.m. and 8 a.m. and on weekends and holidays shall be made by telephone or in person as soon as possible, and in any case within 2 hours following the incident, act of nature or exceedance.

B. The Permittee shall submit to the Department a detailed written incident report of the incident, act of nature or exceedance within 5 days of discovery, including:

(1) The name of the Permittee;

(2) The name of the person reporting the incident, act of nature, or exceedance;

(3) The date and time of the incident, act of nature, or exceedance;

(4) The nature of the incident, act of nature, or exceedance;

(5) The nature and degree of the threat to the environment, natural resources, or public health or safety; and

(6) Response actions taken or planned.

C. If the response to the incident, act of nature or exceedance is not concluded at the time the written incident report is required, then the Permittee shall submit to the Department a written final incident report within 30 days after the incident response is concluded. The final incident report must contain a summary of the initial incident report and an account of all response actions taken. If the final response to the incident, act of nature or exceedance is not concluded within 30 days, then the Department may require periodic progress reports.

D. Records upon which reports are based must be preserved by the Permittee in accordance with section 28 of this Chapter.

28. Recordkeeping Requirements. Records must be retained by the Permittee as follows:

A. Records upon which the mining and reclamation reports required pursuant to section 26 of this Chapter are based must be preserved by the Permittee for 6 years.

B. Any retained record must be available to the Department upon request.

C. Records upon which incident reports under section 27 of this Chapter are based must be preserved by the Permittee for 6 years, or until the end of the post-closure monitoring period, whichever is later.

Subchapter 7: SUSPENSION OF MINING

29. Suspension of Mining and Resumption of Mining After Suspension.

A. Requirements

(1) Any Permittee requesting a temporary suspension of mining must file a written request for approval of a temporary suspension of mining to the Department at least 30 days prior to suspending mining for a continuous period of 90 days or more. A temporary suspension of mining must be limited to 365 days. Activity that deviates substantially from the approved mining plan may not constitute part of a continuous period of mining for the purposes of this section. The request for a temporary suspension must set forth:

(a) The reasons for the temporary suspension of mining;

(b) The start date and expected duration of the temporary suspension of mining;

(c) The factors that will influence the decision for resumption of mining;

(d) Measures to maintain and monitor the mining area;

(e) Security measures to be taken during the temporary suspension of mining;

(f) Interim sloping or stabilization of surfaces;

(g) An update to financial assurance;

(h) Interim measures that will be taken during the temporary suspension of mining to comply with its environmental protection, reclamation and closure plan and mining permit;

(i) Interim measures that will be taken to protect the environment, natural resources, and public health and safety; and

(j) Verification that all required, routine operations will continue during the suspension, including but not limited to, treatment operations, inspections, monitoring, corrective actions (if any), and annual reporting.

(3) Prior to considering the request for approval or modification of a request for temporary suspension of mining operations, the Department shall verify Permittee compliance with the Act, rules and permit to mine.

(4) The Department may require more information from the applicant, a partial closure of mining operations, an adjustment to financial assurance, corrective actions or additional measures to protect the environment, natural resources and public health and safety as a condition of approval.

(5) The Permittee must file a revised request for temporary suspension of mining to the Department for approval if modifications to elements of the original request are required by the Permittee or the Department.

(6) The Permittee may request an increase in the duration of the period of suspension of mining, as part of this request, the Permittee must:

(a) Provide an explanation as to why the Permittee has not recommenced operations; and

(b) Provide a demonstration of continued commitment to conduct mining within 365 days from the date of temporary suspension of mining.

(7) The Permittee is considered to have ceased mining and all requirements applicable to the closure take effect if mining operations are suspended for a continuous period exceeding 365 days, not counting any nominal activity, unless the Department agrees in writing to delay the implementation of the closure plan based on a written submission by the Permittee that demonstrates to the satisfaction of the Department that the mining operations are expected to

recommence within one year or less. In any case, the Department may require partial closure of the mining operation during such suspension.

(8) For any suspension of mining operations greater than 60 days from the original date of request, prior to resuming operations, the Permittee shall inspect the facility and provide certification to the Department that all systems are functioning as designed and are capable of resuming operations.

B. Exemption from licensing requirements. A request to suspend mining activities pursuant to this section is exempt from licensing requirements under 06-096 CMR 2.

Subchapter 8: VIOLATIONS

30. Permittee Required to Correct Violations. The Department may order a Permittee to correct a violation of the Act, rules adopted under the Act, an order of the Department, or a mining permit within 10 days, or submit a corrective action work plan to correct the violation within 10 days.

A. The corrective action work plan may:

(1) Specify the details of the violation;

(2) The proposed action to correct the violation; and

(3) A time schedule for implementing the corrective action plan.

B. When the Permittee is aware of a violation of the Act, a rule adopted under the Act, an order of the Department or a mining permit, the Permittee shall:

(1) Take immediate action to correct the violation; and

(2) Notify the Department of the violation and of the action being implemented to correct the violation.

D. The Permittee shall correct the violation within a reasonable time.

E. The Department may pursue enforcement action in accordance with 38 M.R.S. §§ 347-A, 348 and 349, and may require changes to the corrective action work plan as determined to be necessary.

31. Imminent Endangerment. If the Department determines that a violation is causing or resulting in an imminent and substantial endangerment to the public health and safety, the environment, or natural resources, the Department may take action necessary to abate or eliminate the endangerment, including one or more of the following:

A. Taking action to revoke the mining permit as authorized the Act, 38 M.R.S. § 342 (11-B) and the Maine Administrative Procedure Act;

B. Issuing an order to the Permittee requiring immediate suspension of mining activities;

C. Issuing an order prohibiting the removal of metallic product from the site;

D. Ordering the Permittee to undertake such other response actions as may be necessary to abate or eliminate the endangerment;

E. Issuing an emergency order as authorized by 38 M.R.S.A § 347-A, subsection 3.

F. Notifying municipal officers and county commissioners or their designees, from each municipality and county in which the mining area and affected area may be located; and

G. Notifying the public through publication of the action in a newspaper of general circulation in the area.

32. Effect of Revocation of a Mining Permit or Suspension of Mining Activities.

A. The revocation of a mining permit by a court or the suspension of mining activities by the Department does not relieve the Permittee from its responsibilities to:

(1) Undertake all activities in accordance with the environmental protection, reclamation and closure plan;

(2) Implement the monitoring plan;

(3) Continue the operation and maintenance of the facility in an appropriate manner; and

(4) Maintain financial assurance under 38 M.R.S.A § 490-RR.

B. Continue to undertake all appropriate measures to protect the environment, natural resources, and public health and safety.