Department of Natural Resources

Adopted Permanent Rules Relating to Nonferrous Metallic Mineral Mineland Reclamation

Rules as Adopted

GENERAL PROVISIONS

6132.0100 DEFINITIONS.

Subpart 1. **Scope.** The terms in parts 6132.0100 to 6132.5300 have the meanings given them in this part.

Subp. 2. **Acceptable research.** "Acceptable research" means research approved by the commissioner that is site-related and is reasonably designed for the purpose of demonstrating that reclamation can be achieved by alternative methods.

Subp. 3. **Adversely impact natural resources.** "Adversely impact natural resources" means an unacceptable level of impact on the natural resources as determined by the commissioner based on an evaluation which considers the value of the resource and the degree of impact.

Subp. 4. **Auxiliary facilities.** "Auxiliary facilities" means all permittee-owned stationary physical property used in a mining operation, including but not limited to: power plants and associated facilities; transmission lines; pipelines; roads; railroads; docks and associated facilities; borrow areas and leased borrow areas and associated facilities; blasting agent and fuel production or preparation facilities; and parking areas, shops, offices, buildings, structures, and storage facilities located within the area where mining is conducted. This does not include common carrier transportation facilities.

Subp. 5. **Beneficiating plants.** "Beneficiating plants" means all metallic mineral processing plants, such as crushers, mills, concentrators, agglomerating facilities, smelters, refineries, and other metal-producing facilities.

Subp. 6. **Closure.** "Closure" means the process of terminating and completing final steps in reclaiming any

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specific portion of a mining operation. Closure begins when, as prescribed in the permit to mine, there will be no renewed use or activity by the permittee.

Subp. 7. **Commissioner.** "Commissioner" means the commissioner of natural resources, or the commissioner's designated representative.

Subp. 8. **Goals.** "Goals" means reclamation targets of achievement toward which the specific requirements of parts 6132.0100 to 6132.5300 are directed.

Subp. 9. **Heap and dump leaching.** "Heap and dump leaching" means a hydrometallurgical process that extracts metals from broken rock piles, called heaps or dumps, by application of leaching solutions.

Subp. 10. **Heap and dump leaching facilities.** "Heap and dump leaching facilities" means all land forms, structures, equipment, and material that contact, process, contain, collect, or confine leaching solutions associated with the hydrometallurgical processing of heaps and dumps.

Subp. 11. **In-situ leaching.** "In-situ leaching" means a hydrometallurgical process that extracts metals from rock formations that have not been removed from the ground, using leaching solutions that are applied to and collected from wells or mine workings that have been developed within the metal-bearing rock formations.

Subp. 12. **Leached ore.** "Leached ore" means the rock mass that remains after metals have been removed by heap and dump leaching.

Subp. 13. **Leaching solutions.** "Leaching solutions" means hydrometallurgical processing fluids that extract metals from mineralized rock.

Subp. 14. **Lean ore.** "Lean ore" means rock containing metallic mineralization that is not profitable to process using technologies that exist at the mining operation.

Subp. 15. **Metallic mineral.** "Metallic mineral" means a naturally formed chemical, element, or compound having a definite chemical composition and, usually, a characteristic

crystal form, from which a metal, metals, or metal oxides can be extracted by metallurgical processes.

Subp. 16. **Mine waste.** "Mine waste" means a material, such as surface overburden, rock, lean ore, leached ore, or tailings that in the process of mining and beneficiation has been exposed or removed from the earth.

Subp. 17. **Minimize to the extent practicable.** "Minimize to the extent practicable" means minimize through application of technologies and practices including methods, specifications, guidelines, standards, and engineering safety factors, developed for and commonly used in mining or in reasonably similar activities. These technologies and practices shall be determined by the commissioner, based on problem assessment, examination of alternative practices, and input from appropriate regulatory authorities, to be the most effective and workable means of achieving reclamation, including being technologically, economically, and practically applicable.

Subp. 18. **Mining.** "Mining" means the process of removing; stockpiling; processing; storing; transporting, excluding use of common carriers and public transportation systems; and reclaiming a material in connection with the commercial production of metallic minerals.

Subp. 19. **Mining area or area subjected to mining.** "Mining area" or "area subjected to mining" means an area of land from which material is removed in connection with the production or extraction of metallic minerals; the lands on which material from the mining is deposited; the lands on which beneficiating plants, heap and dump leaching facilities, and auxiliary facilities are located; lands on which the water reservoirs used in the mining process are located; and auxiliary lands that are used or intended to be used in a particular mining operation.

Subp. 20. **Mining operation.** "Mining operation" means all of a mining project without regard to political, administrative, or ownership boundaries, which includes all of the facilities used in mining as defined in subpart 18.

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Subp. 21. **Natural resources.** "Natural resources" means all mineral, animal, botanical, air, water, land, timber, soil, quietude, recreational, historical, scenic, and aesthetic resources in accordance with Minnesota Statutes, section 116B.02, subdivision 4.

Subp. 22. **Nonferrous metallic mineral.** "Nonferrous metallic mineral" means a metallic mineral from which iron is not the predominant metal extracted.

Subp. 23. **Passive reclamation methods.** "Passive reclamation methods" means techniques or practices that require minimal maintenance to sustain reclamation.

Subp. 24. **Permit to mine.** "Permit to mine" means legal approval issued by the commissioner to conduct a mining operation.

Subp. 25. **Person.** "Person" means a firm, partnership, corporation, joint venture, or other legal entity.

Subp. 26. **Postclosure maintenance.** "Postclosure maintenance" means an activity that may be required to sustain reclamation after cessation of a mining operation.

Subp. 27. **Progressive reclamation.** "Progressive reclamation" means mining in a manner that creates areas that can be reclaimed as soon after initiation of the operation as practical and as continuously as practical throughout the life of the operation.

Subp. 28. **Reactive mine waste.** "Reactive mine waste" means waste that is shown through characterization studies to release substances that adversely impact natural resources.

Subp. 29. **Reclamation.** "Reclamation" means the activities that successfully accomplish the requirements of parts 6132.2000 to 6132.3200.

Subp. 30. **Reference area.** "Reference area" means a vegetated land unit approved by the commissioner for comparatively measuring reclamation vegetation success.

Subp. 31. **Storage pile.** "Storage pile" means a land form used for the disposal of material generated during mining, such as surface overburden, rock, lean ore, and leached ore. It does

not include tailings basins, fossil fuel, finished product, or surge piles.

Subp. 32. **Surface overburden.** "Surface overburden" means naturally occurring unconsolidated material overlying bedrock, consisting of broken rock fragments or organic material.

Subp. 33. **Tailings.** "Tailings" means waste by-products of mineral beneficiating processes other than heap and dump leaching, consisting of rock particles, which have usually undergone crushing and grinding, from which the profitable mineralization has been separated.

Subp. 34. **Waste rock.** "Waste rock" means rock that may or may not contain metallic mineralization, but that is in either case not profitable to process using known technologies.

6132.0200 PURPOSE AND POLICY.

The purpose of parts 6132.0100 to 6132.5300 is to implement Minnesota Statutes, sections 93.44 to 93.51, to control possible adverse environmental effects of nonferrous metallic mineral mining, to preserve natural resources, and to encourage planning of future land utilization, while at the same time promoting orderly development of nonferrous metallic mineral mining, encouragement of good mining practices, and recognition and identification of the beneficial aspects of nonferrous metallic mineral mining.

To accomplish the purposes of parts 6132.0100 to 6132.5300, it is the policy of the Department of Natural Resources that mining be conducted in a manner that will reduce impacts to the extent practicable, mitigate unavoidable impacts, and ensure that the mining area is left in a condition that protects natural resources and minimizes to the extent practicable the need for maintenance. This shall be accomplished according to parts 6132.0100 to 6132.5300 through the use of mining, mine waste management, and passive reclamation methods that maximize physical, chemical, and biological stabilization of areas disturbed by mining, as opposed to the use of ongoing active treatment technologies. The department recognizes that in some

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cases passive treatment alone will not entirely meet all reclamation goals. In these cases, active treatment technologies may be necessary and provisions for continued maintenance of the treatments will be required.

Because of the unique character of each mining operation and the extreme diversity of the possible types and sizes of operations, specific permit requirements shall be established within the framework established by parts 6132.0100 to 6132.5300. Permit terms and conditions shall be directed toward attaining the goals while fulfilling the requirements described in parts 6132.0100 to 6132.5300.

6132.0300 SCOPE.

Subpart 1. **Permit required.** No person shall conduct a mining operation for nonferrous metallic minerals in this state without first obtaining a permit to mine from the commissioner. For the purpose of this subpart, a person must possess ~~adequate~~ capital and provide financial and operational decision making necessary to conduct the mining operation.

Subp. 2. **Joint applications.** When two or more persons are or will be engaged in a mining operation, all persons shall join in the application, and the permit to mine shall be issued jointly.

Subp. 3. **Term of permit to mine.** The term of a permit to mine shall be the period determined necessary by the commissioner for the completion of the proposed mining operation including postclosure maintenance, based on information provided under part 6132.1100.

Subp. 4. **Applicability.** Parts 6132.0100 to 6132.5300 apply to nonferrous metallic mineral mining operations, except where iron is the predominant metal extracted, as follows:

A. to all portions of a mining operation initiated after the effective date of parts 6132.0100 to 6132.5300, including new operations and reactivated inactive operations; and

B. until adequate studies are completed to determine

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the extent to which regulation may be necessary and rules are adopted, no permit to mine shall be issued under parts 6132.0100 to 6132.5300 to a mining operation that includes:

(1) the mining of radioactive ores for the commercial production of uranium, thorium, or any other material that is determined by the Nuclear Regulatory Commission to be essential to the production of fissionable materials; or

(2) in-situ leaching as part of the beneficiating process.

Subp. 5. **Other rules, statutes, or ordinances.** Nothing in parts 6132.0100 to 6132.5300 waives the requirements of other applicable rules, statutes, or ordinances of a state or federal agency or political subdivision.

PERMIT REQUIREMENTS

6132.1000 MINE WASTE CHARACTERIZATION.

Subpart 1. **Mine waste characterization conference.** Persons intending to submit an application for a permit to mine shall meet with the commissioner to outline chemical and mineralogical analyses and laboratory tests to be conducted for mine waste characterization. This characterization will be used by the commissioner in the evaluation of the applicant's mining and reclamation plan.

Subp. 2. **Mine waste characterization.** Mine waste characterization shall be conducted by ~~an independent party~~ persons with demonstrated proficiency in such analysis and approved by the commissioner. The characterization shall be based on chemical, physical, and mineralogical analyses and laboratory tests of material generated by exploration, preproduction sampling, and process testing.

A. The mine waste characterization shall include:

(1) chemical analysis of mine waste;

(2) mineralogical and petrological analysis of mine waste; and

(3) laboratory tests describing acid generation and dissolved solids release from mine waste.

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B. For reagents associated with tailings or leached ore materials, the following information shall be provided:

(1) chemical composition;

(2) mass of chemical used;

(3) degradation and transport characteristics; and

(4) effects on mineral dissolution as measured in item A, subitem (3), or item C, subitem (3).

C. Based on the results of the analyses and tests of items A and B, the commissioner may require additional mine waste characterization including, but not limited to, the following:

(1) particle size distribution;

(2) chemical composition, mineralogical composition, and specific surface area as a function of particle size; and

(3) laboratory dissolution tests to describe the effect of rock composition, in particular, acid-producing and acid-consuming mineral content, on acid generation and dissolved solids release.

Subp. 3. **Results of characterization.** The results of the mine waste characterization shall be submitted as follows:

A. to the commissioner as a part of the permit to mine at the following times:

(1) on submission of an application for a permit to mine under part 6132.1100, subpart 6, item B, subitem (1); and

(2) throughout the life of the operation as part of the annual report under part 6132.1300, subpart 2, item E; and

B. to regulatory agencies establishing water quality and compliance monitoring standards.

6132.1100 PERMIT APPLICATIONS.

Subpart 1. **Preapplication conferences and site visits.** Before the preparation of an application for a permit to mine,

persons intending to submit an application shall meet with the commissioner for a preapplication conference and site visit. The purpose is to review the proposed mining operation and to provide direction on the preparation of an application for a permit to mine. In conjunction with the preapplication conference, the commissioner shall hold a public informational meeting with the assistance of the applicant and invite the participation of the Minnesota Pollution Control Agency, the Environmental Quality Board, and the local unit of government. A notice of the meeting shall be published once at least 30 days before the meeting as follows:

A. by the commissioner in the State Register and the EQB Monitor; and

B. by the applicant in a qualified newspaper under Minnesota Statutes, section 331A.02, that is circulated in the locality of the proposed operation.

Subp. 2. **Application.** An application for a permit to mine shall be submitted in duplicate by the applicant to the commissioner.

Subp. 3. **Documents.** To comply with statutory requirements, the applicant shall submit:

A. the advertisement and affidavit of publication according to parts 6132.4000, subpart 1, and 6132.4900;

B. a copy of the certificate of authority to transact business in Minnesota if the applicant is a foreign corporation as defined in Minnesota Statutes, sections 300.02 and 303.02;

C. a certificate issued by an insurance company authorized to do business in the United States under Minnesota Statutes, section 93.481, subdivision 1, clause (b), confirming that the applicant has a public liability insurance policy in force for the mining operation for which the permit is sought or evidence that the applicant has satisfied other state or 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;

and

D. documents relating to financial assurance under part 6132.1200.

Subp. 4. **Organizational structure.** The applicant shall submit the following information on organizational structure:

A. the post office address of the applicant;

B. the organizational structure of the applicant including, but not limited to, parent companies, owners, principal stockholders, partners, and joint venturers;

C. managing agents or subsidiaries that are or may be involved in the mining operation; and

D. organizational relationships between or among joint applicants.

Subp. 5. **Environmental setting.** To describe the environmental setting of the proposed mining area, the applicant shall submit:

A. a copy of the draft environmental impact statement and all environmental reports prepared relative to the mining operation; and

B. environmental setting maps prepared as overlays to 7-1/2 minute United States Geological Survey quadrangle maps or other maps of the same scale delineating the mining area and adjacent lands as required by the commissioner to show the areas directly or indirectly affected by mining. The following information as it exists at the time of application shall be submitted on the overlays:

(1) bedrock geology, including the general shape of the ore body and appropriate cross sections that show the horizontal and vertical relationships;

(2) water basins, water courses, and wetlands that are or could be affected by mining;

(3) boundaries of watersheds that are or could be affected by mining;

(4) identification and description of hydrogeologic information including, but not limited to:

(a) plan view and cross section maps of

overburden and rock features; and

(b) description of features on maps including, but not limited to, well locations, uses, well logs, pumping rates, and capacities;

(5) surface water and groundwater compliance monitoring sites as well as water quality and toxicity standards established by other regulatory authorities;

(6) a soil inventory including soil type, extent, and thickness;

(7) recorded locations of rare, endangered, and threatened species;

(8) past mining facilities including storage piles, tailings basins, mines, and beneficiating plants;

(9) recorded archeological or historic sites;

(10) all known surface and subsurface uses, such as pipelines and cables;

(11) areas identified ~~as-sites~~ under part 6132.2000;

(12) zoning ordinances and associated land use plans applicable to the proposed mining area; and

(13) surface and mineral rights ownership within the mining area based on information of record in the county recorder's office. An owner's agent may be identified in place of the owner.

Subp. 6. **Mining and reclamation plan.** The mining and reclamation plan shall be based on discussions between the applicant and the commissioner at the preapplication conference and on results from the mine waste characterization. The mining and reclamation plan shall describe:

A. the operating life of the mine, including the rate of mining and anticipated changes in that rate;

B. the mining activities to be conducted, including:

(1) the types, amounts, sequence, and schedule ~~for~~ of mining the ore body and storage piling materials, including the distinctions among ore, lean ore, and waste rock; and

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(2) the ore beneficiating process, including a discussion of the type and amount of chemicals to be added and the types, amounts, sequence, schedule, and means of tailings disposal;

C. the engineering design, methods, sequence, and schedules of reclamation including closure and postclosure maintenance that address the goals and meet the requirements of parts 6132.2000 to 6132.3200, including anticipated reclamation research; and

D. the mine waste characterization.

Subp. 7. **Mining and reclamation maps.** The applicant shall submit maps and cross sections containing all features normally found ~~an~~ on a United States Geological Survey quadrangle map, at a scale that is normally used by the operator for mine planning purposes, that:

A. define the shape and extent of the ore body that will support the operating life of the mine;

B. identify lands proposed for use as vegetative reference areas;

C. show the detailed drainage patterns for waters that may contact reactive mine wastes; and

D. show, at intervals during mining approved by the commissioner based on the preapplication conference, the status of:

(1) mining the ore body;

(2) watershed and hydrogeologic modifications; and

(3) construction, including shape, extent, and content, and reclamation, including contouring, covering, temporary stabilization, vegetation, closure, and postclosure maintenance, of each of the following: storage pile, tailings basin, mine, reservoir, dam, diversion channel, drainage control, settling basin, heap and dump leaching facility, and auxiliary facility.

Subp. 8. **First year of operation.** A detailed plan for the activities planned during the first year of operation shall be

submitted as part of the permit application. The plan shall include all of the information required by part 6132.1300, subparts 3 to 6.

6132.1200 FINANCIAL ASSURANCE.

Subpart 1. **Purpose.** The purpose of financial assurance is to ensure that there is a source of funds to be used by the commissioner if the permittee fails to perform:

A. reclamation activities including closure and postclosure maintenance needed if operations cease; and

B. corrective action as required by the commissioner if noncompliance with design and operating criteria in the permit to mine occurs.

Subp. 2. **Contingency reclamation cost estimates.** Persons intending to conduct a mining operation shall submit, as part of the application for a permit to mine, a documented estimate of costs necessary to implement the contingency reclamation plan under part 6132.1300, subpart 4. This estimate shall include closure and postclosure maintenance activities required if operations cease within the first calendar year.

A. The permittee shall annually adjust the contingency reclamation cost estimate under part 6132.1300, subpart 4.

B. Cost estimates shall be based on the following:

(1) current dollar value at the time of the estimate; and

(2) the cost to the commissioner of administering and hiring a third party to implement the contingency reclamation plan.

C. No salvage value attributed to the sale of wastes, facility structures, equipment, land, or other assets shall be used for estimating purposes.

Subp. 3. **Corrective action cost estimates.** When the commissioner determines that a corrective action plan is required under part 6132.3100, subpart 2, item B, subitem (2), the permittee shall submit a documented estimate of costs to

perform the corrective action before implementation.

A. The permittee shall annually adjust cost estimates for corrective action undertaken according to an approved corrective action plan under part 6132.1300, subpart 5.

B. Cost estimates shall be based on the following:

(1) current dollar value at the time of the estimate; and

(2) the cost to the commissioner of administering and hiring a third party to conduct corrective action activities.

Subp. 4. **Management of financial assurance.** Financial assurance shall be managed according to items A to H.

A. The commissioner shall evaluate all financial assurance cost estimates and adjustments to cost estimates using individuals with documented experience in material handling and construction and mining costs. Costs incurred by the commissioner in hiring third parties to perform the evaluation must be paid by the applicant.

B. Financial assurance in the amount equal to the contingency reclamation cost estimate under subpart 2 shall be:

(1) submitted to the commissioner for approval before issuance of a permit to mine and before granting an amendment to the permit;

(2) continuously maintained by the permittee; and

(3) annually adjusted as follows:

(a) if the new cost estimate approved by the commissioner is greater than the amount of the existing financial assurance, the permittee shall provide additional financial assurance in an amount equal to the increase; or

(b) if the new cost estimate approved by the commissioner is less than the amount of existing financial assurance, the permittee shall be released from maintaining financial assurance in an amount equal to the decrease.

C. Financial assurance in the amount equal to the corrective action cost estimate under subpart 3 shall be:

(1) submitted to the commissioner for approval as part of the corrective action cost estimate under subpart 3;

(2) continuously maintained by the permittee until the commissioner determines it is no longer necessary; and

(3) annually adjusted as follows:

(a) if the new cost estimate approved by the commissioner is greater than the amount of the existing financial assurance, the permittee shall provide additional financial assurance in an amount equal to the increase; or

(b) if the new cost estimate approved by the commissioner is less than the amount of existing financial assurance, the permittee shall be released from maintaining financial assurance in an amount equal to the decrease.

D. Financial assurances may be canceled by the permittee, on approval by the commissioner, only after it is replaced by an alternate mechanism or after the permittee is released from financial assurance according to item H.

E. The permittee must ensure that the provider of financial assurance gives the commissioner 120 days' notice prior to cancellation of the financial assurance mechanism. Upon receipt of this notice, the commissioner shall initiate a proceeding to access the financial assurance according to part ~~6132.1300~~ 6132.1200, subpart 6.

F. If the permit to mine is assigned under part 6132.4700, the new permittee must be in compliance with requirements of this part before the commissioner approves the assignment. On the assignee's demonstration of compliance with this part, the former permittee shall be released from the requirements of this part.

G. Financial assurance must meet the criteria of subpart 5.

H. The commissioner shall release the permittee from the responsibility to maintain financial assurance when the commissioner determines, through inspection of the mining area, that:

(1) all reclamation activities have been completed according to this part and the permit to mine;

(2) conditions necessitating postclosure

maintenance no longer exist and are not likely to recur; and

(3) corrective actions have been successfully accomplished.

Subp. 5. **Criteria for financial assurance.** Financial assurance for reclamation and for corrective action must meet the following criteria:

A. assurance of funds sufficient to cover the costs estimated under subparts 2 and 3;

B. assurance that the funds will be available and made payable to the commissioner when needed;

C. assurance that the funds will be fully valid, binding, and enforceable under state and federal law;

D. assurance that the funds will not be dischargeable through bankruptcy; and

E. all terms and conditions of the financial assurance must be approved by the commissioner. The commissioner, in evaluating financial assurance, shall use individuals with documented experience in the analysis. The reasonable cost of the evaluation shall be paid by the applicant.

Subp. 6. **Forfeiture of financial assurance.** Financial assurance must be made available to the commissioner under items A to C when the operator is not in compliance with either the contingency reclamation plan or the corrective action plan.

A. A proceeding to access financial assurance shall be commenced by:

(1) serving an order to forfeit the financial assurance on the person, institution, or trustee holding the financial assurance; and

(2) serving a notice of measures required to correct the situation and the time available for correction on the permittee.

B. If conditions that provided grounds for the order are corrected within a period established by the commissioner and if measures approved by the commissioner are taken to ensure that the conditions do not recur, the ~~proposed~~ order shall be canceled.

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C. If the conditions that provided grounds for the order are not corrected, the commissioner shall proceed with accessing and expending the funds provided by this part to implement the contingency reclamation or corrective action plans.

Subp. 7. **Failure to comply.** The commissioner may take one or more of the following actions if failure to comply with any portion of this part occurs:

A. deny the permit to mine;

B. suspend the permit to mine under part 6132.4500;

C. assess civil penalties under part 6132.5100;

D. revoke the permit to mine under part 6132.4600; or

E. modify the permit to mine under part 6132.4300.

6132.1300 ANNUAL REPORT.

Subpart 1. **Purpose.** The purpose of the annual report is to describe actual mining and reclamation completed during the past year, the mining and reclamation activities planned for the upcoming year, and a contingency reclamation plan to be implemented if operations cease in the upcoming year. The permittee shall submit an annual report, in duplicate, to the commissioner by March 31 of each year.

Subp. 2. **Preceding calendar year.** For the preceding calendar year, the report must include:

A. a description of actual mining activities, including:

(1) the types, amounts, sequence, and schedule ~~for~~ of mining the ore body and storage piling materials, including the distinction among ore, lean ore, and waste rock; and

(2) changes in the beneficiating process, including a discussion of the type and amount of chemicals added and their effect, if any, on the types, amount, and means of waste disposal;

B. a description of actual reclamation activities and corrective actions;

C. a description of the status of ongoing postclosure

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maintenance activities;

D. a discussion of items A to C differ in scope and schedule from the approved mining and reclamation plan under part 6132.1100, subpart 6;

E. a characterization of new rock types or formations encountered during mining that have not been previously characterized under part 6132.1000, subpart 2;

F. a discussion of changes in ownership or organizational structure of the permittee; and

G. a description of actual wetland replacement activities, in the manner prescribed by the monitoring section of the "Standards and Procedures for Evaluating Wetland Replacement Plans" pursuant to chapter 8410, wetland rules.

Subp. 3. **Upcoming calendar year.** For the upcoming calendar year, the report must include:

A. the anticipated rate of mining;

B. the anticipated mining activities, including:

(1) the types, amounts, sequence, and schedule ~~for~~ of mining the ore body and storage piling materials, including the distinctions among ore, lean ore, and waste rock; and

(2) changes in the beneficiating process, including a discussion of the type and amount of chemicals to be added and their effect, if any, on the types, amount, and means of waste disposal;

C. the anticipated reclamation including methods, schedules, and research;

D. notification of intent to close a mining area or portion of an area;

E. a discussion of how anticipated activities will differ in scope and schedule from the approved mining and reclamation plan under part 6132.1100, subpart 6;

F. evidence that the liability insurance policy submitted with the permit application under part 6132.1100, subpart 3, item C, is in force, or that self-insurance requirements are being met;

G. a discussion of anticipated changes in ownership and organizational structure of the permittee; and

H. a wetland replacement plan approved pursuant to part 6132.5300.

Subp. 4. **Contingency reclamation plan.** A contingency reclamation plan including closure and postclosure maintenance shall be submitted with the annual report to identify reclamation activities that would be implemented by the permittee if operations cease in the upcoming calendar year. The plan shall include the following:

A. methods, sequence, and schedule of reclamation that address the goals and meet the requirements of parts 6132.2000 to 6132.3200;

B. maps and cross sections at a scale approved by the commissioner that depict the construction, including shape, extent, and content, and reclamation, including contouring, covering, vegetation, closure, and postclosure maintenance, of each area affected by mining; and

C. cost estimates and financial mechanisms under part 6132.1200 necessary to implement the contingency reclamation plan if operations cease in the upcoming calendar year.

Subp. 5. **Corrective action for upcoming calendar year.** When a corrective action plan has been required under part 6132.3100, subpart 2, the report shall include:

A. a description of actual corrective action conducted in the preceding calendar year;

B. a description of anticipated corrective action for the upcoming calendar year; and

C. a corrective action cost estimate for the upcoming year under part 6132.1200, subpart 3.

Subp. 6. **Maps.** For the preceding and upcoming year, the report shall contain a map in the form prescribed by part 6132.1100, subpart 7, that shows the status of mining, construction, reclamation including closure and postclosure maintenance, and watershed modifications.

6132.1400 REQUEST FOR RELEASE FROM PERMIT.

Subpart 1. **Purpose.** The purpose of the request for release is to provide the commissioner with information on the final reclamation status of the mining area or a specific portion of the area. The request shall be submitted by the permittee when the permittee has concluded that all reclamation has been satisfactorily accomplished and that release from the permit or portion of it should be granted.

Subp. 2. **Contents.** The request for release shall include the following:

A. a declaration by the permittee of how each portion of the mining area for which a release is requested has been made to comply with the requirements of parts 6132.2000 to 6132.3200 and the permit to mine;

B. identification of:

(1) the ownership of the mining area;

(2) all remaining structures and auxiliary facilities; and

(3) all locations at which postclosure maintenance is necessary;

C. a discussion of all areas excluded from release because of the necessity of conducting postclosure maintenance under part 6132.3200, subpart 2, item E, subitem (7);

D. a copy of the record filed in the county recorder's office advising future owners of the mining area that it has been mined; and

E. a map in the form prescribed by part 6132.1100, subpart 7, which shows the following:

(1) the location and status of all mining land forms and facilities created or used during the mining operation;

(2) the areas for which release is being requested;

(3) the areas on which postclosure maintenance is being conducted;

(4) the final topography of all mining land

forms;

(5) the location, type, and extent of vegetation that has been established under part 6132.2800;

(6) the existing and ultimate anticipated level of open pit and underground mine water, and the year in which the ultimate level is expected to be reached;

(7) the locations of the safe accesses to the bottom of an open pit;

(8) the location of all sealed access points to underground mine workings;

(9) the location of fences and other access barriers; and

(10) the location of areas prone to subsidence.

RECLAMATION STANDARDS

6132.2000 SITING.

Subpart 1. **Goals.** Mining shall be conducted on sites that minimize adverse impacts on natural resources and the public. Separations shall be maintained between mining areas and adjacent conflicting land uses. All sites shall incorporate setbacks or separations that are needed to comply with air, water, and noise pollution standards; local land use regulations; and requirements of other appropriate authorities.

Subp. 2. **Mining excluded.** Except as allowed under state and federal laws, no mining shall be conducted within the following:

A. the Boundary Waters Canoe Area Wilderness, as legally described in the Federal Register, volume 45, number 67 (April 4, 1980), with state restrictions specified in Minnesota Statutes, section 84.523, subdivision 3;

B. Voyageurs National Park, with state restrictions specified in Minnesota Statutes, section 84B.03, subdivision 1;

C. state wilderness areas, with restrictions specified in Minnesota Statutes, section 86A.05, subdivision 6;

D. Agassiz and Tamarac National Wilderness areas, and Pipestone and Grand Portage National monuments;

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E. state scientific and natural areas;

F. within state peatland scientific and natural areas where such activities would significantly modify or alter the peatland water levels or flows, peatland water chemistry, plant or animal species or communities, or natural features of the peatland scientific and natural areas, except in the event of a national emergency declared by Congress;

G. calcareous fens identified in Minnesota Statutes, section 103G.223; and

H. a state park, except if the park has been established as a result of its association with mining.

Subp. 3. **Surface disturbance prohibited.** No mining activities that disturb the surface shall be allowed within or on the following:

A. within the Boundary Waters Canoe Area Wilderness Mineral Management Corridor, identified on the Department of Natural Resources map entitled "Minnesota Department of Natural Resources B.W.C.A.W. Mineral Management Corridor," dated February 1991, which map is hereby incorporated by reference, is not subject to frequent change, and is available through the State Law Library;

B. within one-fourth mile of Voyageurs National Park;

C. within one-fourth mile of state wilderness areas;

D. within one-fourth mile of Agassiz and Tamarac National Wilderness areas, and Pipestone and Grand Portage National monuments;

E. within one-fourth mile of state scientific and natural areas;

F. within one-fourth mile of state parks, except surface disturbance shall be allowed if the park has been established as a result of its association with mining;

G. within one-fourth mile of calcareous fens identified under Minnesota Statutes, section 103G.223;

H. on sites designated in the National Register of Historic Places, except that surface disturbance shall be allowed if the sites have been established as a result of their

association with mining;

I. on sites designated in the Registry of State Historic Sites, except surface disturbance shall be allowed if the sites have been established as a result of their association with mining;

J. within national wild, scenic, or recreational river districts of a national wild, scenic, or recreational river, and within the areas identified by the document, "A Management Plan for the Upper Mississippi River," produced by the Mississippi Headwaters Board, dated January 1981, which document is hereby incorporated by reference, is not subject to frequent change, and is available through the State Law Library, except underground mining may be permitted in accordance with the management plans developed for specific national wild, scenic, or recreational river districts;

K. within designated state land use districts, of a state wild, scenic, or recreational river, except underground mining may be permitted in accordance with the Wild and Scenic Rivers Act and the rules adopted under it;

L. within the area adjacent to the north shore of Lake Superior identified in the document entitled, "North Shore Management Plan," produced by the North Shore Management Board, dated December 1988, which document is hereby incorporated by reference, is not subject to frequent change, and is available through the State Law Library; and

M. on the following areas, provided they were in existence before the issuance of a permit to mine:

(1) within 500 feet of an occupied dwelling, public school, church, public institution, or county or municipal park, unless allowed by the owner; and

(2) within 100 feet of a cemetery, or the outside right-of-way line of a public roadway, except where mine access or haul roads cross the right-of-way.

Subp. 4. **Mining restricted.** Mining shall be conducted in the following areas only if there is no prudent and feasible siting alternative. If mining is proposed, the commissioner

shall base siting approval decisions on the specific characteristics and qualities of the natural resources for which the area has been designated, and the potential impacts that are likely to result. Mining shall be allowed only if there will be either no adverse impacts on the natural resources, or provisions acceptable to the commissioner are proposed to either mitigate adverse effects, or replace, reroute, or in some other manner reclaim the affected natural resources:

A. within a national wildlife refuge, a national waterfowl production area, or on a national trail;

B. within a state wildlife management area, or on a state designated trail either listed in Minnesota Statutes, section 85.015, or acquired under the authority of Minnesota Statutes, section 84.029, subdivision 2;

C. in peatlands identified as peatland watershed protection areas in the Department of Natural Resources report entitled "Protection of Ecologically Significant Peatlands in Minnesota," dated November 1984, which report is hereby incorporated by reference, is not subject to frequent change, and is available through the State Law Library; and

D. within waters identified in the public waters inventory, conducted under Minnesota Statutes, section 103G.201, that have not been created or substantially altered in size by human activities, and within the adjoining shorelands, as defined in Minnesota Statutes, section 103F.205, subdivision 4, of the unaltered waters.

Subp. 5. **General siting criteria.** Portions of a mining operation for which there is flexibility in site selections, such as storage piles, tailings basins, water reservoirs, processing plants, offices interconnecting roadways, and auxiliary facilities, shall be sited to the extent practicable so that:

A. impacts on the public and natural resources due to wind erosion, noise, and air emissions are minimized;

B. potential injury to life due to floods, caving, or slope failure is minimized;

C. potential damage to property and natural resources due to floods, caving, or slope failure is minimized;

D. major modifications of watersheds, including diversions of surface water and alterations of groundwater levels, are minimized;

E. runoff and seepage can be managed to minimize water impacts on surface water and groundwater;

F. conflicts with natural and historical heritage sites, identified during environmental review, are minimized; and

G. former mining areas are used in preference to areas undisturbed by mining.

Subp. 6. **Wetland conservation.** Mining activities that result in the draining or filling of wetlands, identified pursuant to Minnesota Statutes, section 103G.005, subdivision 19, shall not be conducted unless the wetlands are replaced by restoring or creating wetland areas under a replacement plan approved pursuant to part 6132.5300. It must be noted that the replacement plan requires an evaluation of the affected wetland, including consideration of avoidance and mitigation techniques, before replacement by restoration or creation can even be considered.

6132.2100 BUFFERS.

Subpart 1. **Goals.** A mining operation shall be designed, constructed, and maintained so that it is compatible with surrounding nonmining uses.

Subp. 2. **Requirements.** A mining operation must meet the requirements in items A and B.

A. Existing terrain and vegetation, or revegetated berms, must be used to diminish impacts of the mining activities.

B. Buffers must be constructed before beginning operations and may be located within the areas described in part 6132.2000, subpart 3, item M.

6132.2200 REACTIVE MINE WASTE.

Subpart 1. **Goals.** Reactive mine waste shall be mined,

disposed of, and reclaimed to prevent the release of substances that result in the adverse impacts on natural resources.

Subp. 2. **Requirements.** A mining operation must meet the requirements in items A to D.

A. Chemical and physical characterization of mine waste must be conducted before the submission of an application for a permit to mine and continuously after that during the process of mining under part 6132.1000.

B. A reactive mine waste storage facility must be designed by professional engineers registered in Minnesota proficient in the design, construction, operation, and reclamation of facilities for the storage of reactive mine waste, to either:

(1) modify the physical or chemical characteristics of the mine waste ~~to the extent~~, or store it in an environment, such that the waste is no longer reactive; or

(2) during construction to the extent practicable, and at closure, permanently prevent substantially all water from ~~contacting~~ moving through or over the mine waste and provide for the collection and disposal of any remaining residual waters that ~~come into contact with~~ drain from the mine waste in compliance with federal and state standards.

C. The reactive mine waste storage facility design shall:

(1) describe all materials, construction, and operating performance specifications and limitations that must be maintained to ensure protection of natural resources;

(2) identify monitoring locations to ensure compliance with the design; and

(3) include a schedule for inspection of the reactive mine waste storage facility construction, operation, and reclamation including closure and postclosure maintenance, by the design engineers, to ensure compliance with the design; ~~and~~. In the event the design engineers become unable to perform the inspections, the engineers shall be replaced by persons who meet the qualifications of part 6132.2200, subpart 2, item B,

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and that can demonstrate an understanding of the design and an ability to perform the necessary inspections.

~~(3) identify monitoring locations to ensure compliance with the design.~~

D. The commissioner may allow variance from specific reclamation requirements of parts 6132.2100 and 6132.2300 to 6132.2700 if their use would inhibit designs necessary to meet the requirements of this part.

6132.2300 OVERBURDEN PORTION OF PITWALLS.

Subpart 1. **Goals.** The overburden portion of pitwalls shall be designed, developed, and reclaimed to be structurally sound and promote progressive reclamation.

Subp. 2. **Requirements.** Surface overburden portions of pitwalls shall be designed and constructed to the following standards in items A and B.

A. The final slopes shall consist of benches and lifts as follows:

(1) the toe of the surface overburden portion shall be set back at least 20 feet from the crest of the rock portion of the pitwall;

(2) lift heights shall be no higher than 60 feet and shall be selected based on the need to protect public safety, the location of the pitwall in relation to the surrounding land uses, the soil types and their erosion characteristics, the variability of overburden thickness, and the potential uses of the pit following mining;

(3) the sloped area between benches shall be no steeper than 2.5:1; and

(4) runoff water shall either be temporarily stored on benches or removed by drainage control structures.

B. When acceptable research demonstrates that the goals are satisfied, the commissioner shall approve other measures that satisfy subpart 1.

6132.2400 STORAGE PILE DESIGN.

Subpart 1. **Goals.** Storage piles must be designed and

constructed to minimize hydrologic impacts, enhance the survival and propagation of vegetation, be structurally sound, control erosion, promote progressive reclamation, and recognize the conservation of the mineral resources.

Subp. 2. **Requirements.** Storage piles must meet the requirements in items A to D.

A. General design: All storage piles shall be designed and constructed according to the standards in subitems (1) to (4).

(1) When mine waste is deposited on areas with unstable foundations such as peat, muskeg, bedded lacustrine deposits, karst topography, active seismic and flood zones, and areas above or within a mine, a professional engineer, registered in this state and proficient in the design, construction, operation, and reclamation of facilities on unstable foundations, shall examine the foundation and design the storage piles to ensure stability.

(2) Practices such as the use of vegetated buffer strips, hay bale dikes, silt fences, or settling basins shall be used to control erosion.

(3) Rills or gullies shall be observed to determine dominant runoff flow paths, which shall be stabilized to control runoff.

(4) Storage piles containing reactive mine waste must also comply with the requirements of part 6132.2200.

B. Rock storage piles: The final exterior slopes of lean ore, waste rock, and leached ore storage piles shall consist of benches and lifts as follows:

(1) no lift shall exceed 40 feet in height;

(2) no bench shall be less than 30 feet, measured from the crest of the lower lift to the toe of the next lift;

(3) the sloped area between benches shall be no steeper than the angle of repose; and

(4) when vegetation is required under part 6132.2700, subpart 2, item A, subitem (13), the sloped areas between benches shall be prepared to support vegetation.

C. Surface overburden: Surface overburden shall be disposed of according to subitems (1) and (2).

(1) When surface overburden is generated, it shall be placed in layers on the completed tops and benches of lean ore and waste rock storage piles to enhance reclamation potential.

(2) If no completed tops or benches are available, or if such sites are not within economic haul distances of surface stripping activities, surface overburden storage piles shall be created so that the final exterior slopes shall consist of benches and lifts as follows:

(a) no lift shall exceed 40 feet in height;

(b) no bench width shall be less than 30 feet wide, measured from the crest of the lower lift to the toe of the next lift;

(c) the sloped area between benches shall be no steeper than 2.5:1; and

(d) runoff water shall either be temporarily stored on benches or removed by drainage control structures.

D. Mixed storage piles: Lean ore and waste rock shall not be used to cover surface overburden storage piles to avoid compliance with sloping and vegetation requirements. This shall not preclude the abutting of lean ore or waste rock storage piles with surface overburden storage piles or the placement of lean ore or waste rock lifts on top of surface overburden pads or lifts.

E. Alternative design: Based on acceptable research, the commissioner shall approve other measures that satisfy subpart 1.

6132.2500 TAILINGS BASINS.

Subpart 1. **Goals.** Tailings basins shall be designed, constructed, and operated to be structurally sound, control air emissions, minimize hydrologic impacts, promote progressive reclamation, and enhance the survival and propagation of vegetation.

Subp. 2. **Requirements.** Tailings basins must meet the requirements in items A to C.

A. Tailings basins shall be designed by professional engineers, registered in this state, who are proficient in the design, construction, operation, and reclamation of tailings basins.

B. The tailings basin design shall:

(1) provide rationale for site selection, with regard to dam safety and characteristics of the site that could affect, or could be affected by, the tailings basin;

(2) describe materials, construction, and operating performance specifications and limitations that must be maintained to ensure protection of natural resources;

(3) ensure that precipitation events do not result in overtopping the basin;

(4) describe the specific steps that must be taken to achieve reclamation on tailings and dam surfaces;

(5) ~~include a schedule for the design engineers to inspect the construction, operation, and reclamation of the tailings basins, including closure and postclosure maintenance, to assure compliance with the design;~~

~~(6)~~ identify monitoring locations to ensure compliance with the design; ~~and~~

~~(7)~~ (6) comply with the requirements of part 6132.2200, if the tailings basin contains reactive mine waste~~.~~; and

(7) include a schedule for the design engineers to inspect the construction, operation, and reclamation of the tailings basins, including closure and postclosure maintenance, to assure compliance with the design. In the event design engineers become unable to perform the inspections, the engineers shall be replaced by persons who meet the qualifications of part 6132.2500, subpart 2, item A, and that can demonstrate an understanding of the design and an ability to perform the necessary inspections.

C. During the mining operation, dust generation shall

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be reduced by maximizing progressive reclamation, or controlled by the application of dust suppression techniques under part 6132.2800, subpart 2.

6132.2600 HEAP AND DUMP LEACHING FACILITIES.

Subpart 1. **Goals.** Heap and dump leaching facilities shall be designed and constructed to be structurally sound, minimize hydrologic impacts, minimize the release of substances that adversely impact other natural resources, and promote progressive reclamation.

Subp. 2. **Requirements.** Heap and dump leaching facilities must meet the requirements in items A to C.

A. Heap and dump leaching facilities shall be designed by professional engineers, registered in this state, who are proficient in the design, construction, operation, neutralization, detoxification, and reclamation of heap and dump leaching facilities.

B. The heap and dump leaching facility design shall:

(1) provide rationale for site selection with regard to characteristics of the site that could affect, or be affected by, the heap and dump leaching facilities;

(2) ensure that only leaching solutions that meet all state and federal water quality standards will be released to the environment;

(3) include means of detecting and retrieving leaching solutions which might be released if leakage occurs;

(4) describe all materials, construction, and operating performance specifications and limitations that must be maintained to ensure protection of other natural resources;

(5) ensure that precipitation events do not result in overtopping ponds;

(6) describe the specific steps that must be taken to neutralize and detoxify residual leaching solutions within leached ore and sediments;

(7) <u>identify monitoring locations to ensure compliance with the design; and</u>

(8) include a schedule for the design engineers to inspect the construction, operation, and reclamation of the facility, including closure and postclosure maintenance, to assure compliance with the design~~;--and~~. In the event the design engineers become unable to perform the inspections, the engineers shall be replaced by persons who meet the qualifications of part 6132.2600, subpart 2, item A, and that can demonstrate an understanding of the design and an ability to perform the necessary inspections.

~~(8)-identify-monitoring-locations-to-ensure compliance-with-the-design.~~

C. Leached ore and sediments from leaching ponds shall be reclaimed according to part 6132.2200 or 6132.2400 based on the results of mine waste characterization.

6132.2700 VEGETATION.

Subpart 1. **Goals.** Vegetation shall be established to control erosion, screen mining areas from noncompatible uses, and provide for subsequent land uses such as wildlife habitat or timber production.

Subp. 2. **Requirements.** Vegetation must meet the requirements in items A to C.

A. Vegetation shall be established on the following areas:

(1) surface overburden storage piles;

(2) exposed soils along diversion channels and roads;

(3) cuts, pits, trenches, and other areas disturbed during the process of obtaining borrow materials;

(4) benches and tops of lean ore, waste rock, and leached ore storage piles;

(5) tailings basins;

(6) heap and dump leaching facilities;

(7) dikes and dams;

(8) exposed soils adjacent to water reservoirs;

(9) areas exposed or disturbed through the

activities associated with the reclamation of building sites, parking lots, pipeline routes, storage areas, transmission routes, and roads not used for subsequent access;

(10) surface overburden portions of pitwalls;

(11) buffers;

(12) subsided areas not permanently covered by water; and

(13) lean ore, waste rock, and leached ore storage pile slopes, within one-fourth mile of residential and designated public use areas, except designated trails.

B. The establishment of vegetation shall be initiated during the first normal planting period following the point when according to the permit to mine, a surface, structure, facility, or element is no longer scheduled to be disturbed or used in a manner that would interfere with the establishment and maintenance of vegetation, or after the establishment of vegetation has otherwise been required.

C. The standards in subitems (1) and (2) apply to the areas listed in item A.

(1) After three growing seasons following initiation of vegetation, a 90 percent ground cover within a 90 percent statistical confidence interval, consisting of living vegetation and its litter, must exist on all areas, except slopes that primarily face south and west. Such sloped areas shall attain the 90 percent ground cover requirement within five growing seasons following the point when initiation of vegetation is required. If this standard is not met, or if unvegetated rills or gullies more than nine inches deep form and erosion is occurring, the surface shall be repaired and replanted during the next normal planting period.

(2) Within ten growing seasons following initiation of vegetation, an area shall have a vegetative community with characteristics similar to those of an approved reference area. The vegetation on a reference area may be either planted or naturally occurring. For the purpose of controlling erosion, it shall be self-sustaining, regenerating,

or a stage in a recognized vegetation succession that provides subsequent land uses such as wildlife habitat or timber production. Reference areas must be representative of the site conditions and possible uses that might exist on mining land forms. No release under part 6132.4800 shall be granted until the area has these characteristics.

6132.2800 DUST SUPPRESSION.

Subpart 1. **Goal.** Areas disturbed by mining shall be managed to control dust.

Subp. 2. **Requirement.** Dust shall be controlled by techniques approved by the commissioner such as water spray, anchored mulches, vegetation, enclosure and containment, and limited chemical binders as last alternatives.

6132.2900 AIR OVERPRESSURE AND GROUND VIBRATIONS FROM BLASTING.

Subpart 1. **Goal.** Effects of air overpressure and ground vibrations from production blasts shall be kept at levels that will not be injurious to human health or welfare and property outside mining areas.

Subp. 2. **Requirements.** Air overpressure standards must meet the requirements in items A and C. Ground vibration control must meet the requirements in items B and C.

A. Air overpressure standards must meet the requirements in subitems (1) to (5).

(1) Air overpressure on lands not owned or controlled by the permittee shall not exceed 130 decibels as measured on a linear peak scale, sensitive to a frequency band ranging from six cycles per second to 200 cycles per second.

(2) All open pit blasts shall be monitored by the operator. Monitoring stations shall be located adjacent to the nearest structure located on lands not owned or controlled by the permittee, and where the commissioner considers necessary to investigate complaints.

(3) All open pit mining operators shall keep a blaster's log of production blasts, which shall be retained for at least six years, containing the following:

(a) date and time of blast;

(b) type of explosive used;

(c) ignition layout with locations of blast holes and time intervals of delay;

(d) pounds of explosives per each delay of eight milliseconds or more;

(e) total pounds of explosives;

(f) type of material blasted;

(g) monitoring locations and results of monitoring when conducted;

(h) meteorological conditions, including temperature inversions, wind speed, and directions as can be determined from the United States Weather Bureau, and ground-based observations;

(i) directional orientation of free faces of bench to be blasted; and

(j) other information that the commissioner finds necessary to determine if the standards of this subpart and subpart 1 are achieved.

(4) If a focusing condition is detected that could cause the blast to adversely affect populated areas, blasting shall be postponed until the condition is no longer present.

(5) Blasting in open pits shall take place only during daylight hours unless a hazardous condition requires blasting at another time.

B. Ground vibration control must meet the requirements in subitems (1) to (4).

(1) The maximum peak particle velocity from blasting shall not exceed one inch per second at the location of a structure located on lands not owned or controlled by the permittee.

(2) The permittee shall monitor production blasts for peak particle velocity using a seismograph capable of measuring three mutually perpendicular peak particle velocities, with the peak particle velocity being the largest of these

measurements.

(3) Seismic measurements shall be conducted adjacent to the nearest structure located on lands not owned or controlled by the permittee and where the commissioner considers necessary to investigate complaints.

(4) If a complaint is received, or when ground vibrations have or are likely to exceed the one inch per second standard, the commissioner shall require permittees using underground mining methods to maintain a blaster's log for the purpose of assessing ground vibration control.

C. All monitoring data collected shall be made available to the commissioner on request.

6132.3000 SUBSIDENCE.

Subpart 1. **Goal.** Mining shall be conducted in a manner that will minimize hazardous conditions that result from subsidence.

Subp. 2. **Requirements.** Mining techniques must meet the requirements in items A to C.

A. Mining techniques shall be used that minimize subsidence to the extent practicable.

B. If actual or likely subsidence occurs, the permittee shall establish ground control survey locations and conduct surveys to document the extent of ground movement.

C. Areas affected by subsidence shall be contoured or filled to protect public health and safety or natural resources.

6132.3100 CORRECTIVE ACTION.

Subpart 1. **Goal.** On the observation of violations of the permit to mine, immediate actions shall be taken to correct the violation.

Subp. 2. **Requirements.** Corrective action requirements include those in items A to D.

A. When the permittee is aware that requirements of parts 6132.2000 to 6132.3200 are not being met, or if facilities constructed are not in compliance with the permit to mine, the permittee shall immediately notify the commissioner.

B. On notification or observation of violations of parts 6132.0100 to 6132.5300 or conditions not meeting the permit to mine, the commissioner shall order the permittee to:

(1) immediately take corrective action; or

(2) submit, within two weeks, a corrective action plan for approval before the permittee implements corrective action that includes:

(a) cause for failure to comply;

(b) methods, sequence, and schedule of corrective action activities that will result in compliance with the permit to mine;

(c) corrective action cost estimates under part 6132.1200, subpart 3; and

(d) maps and cross sections at an appropriate scale.

C. If there is an immediate threat to human safety or natural resources resulting from the mining operation, the permittee shall take immediate corrective action and report to the commissioner.

D. The commissioner may take one or more of the following actions if the permittee fails to comply with any portion of this part:

(1) suspend the permit to mine under part 6132.4500;

(2) assess civil penalties under part 6132.5100;

(3) revoke the permit to mine under part 6132.4600; or

(4) modify the permit to mine under part 6132.4300.

6132.3200 CLOSURE AND POSTCLOSURE MAINTENANCE.

Subpart 1. Goal. The mining area shall be closed so that it is stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact other natural resources, and is maintenance free.

Subp. 2. Requirements. Closure and postclosure

maintenance must meet the requirements in items A to E.

A. When the permittee is aware of a temporary or permanent shutdown, the permittee shall immediately notify the commissioner.

B. For a temporary shutdown, the permittee shall:

(1) document the reason for temporary shutdown;

(2) project when the temporary shutdown will end;

(3) submit a maintenance plan for the temporary shutdown period to ensure that the facility will remain stable and hazard free;

(4) document how all permit standards will be complied with during the shutdown;

(5) maintain full financial assurance;

(6) complete all corrective action requirements as scheduled; and

(7) comply with all reporting requirements.

C. The commissioner, after review of the requirements in item B, may either:

(1) approve the temporary shutdown;

(2) request more information to make a decision; or

(3) deny the temporary shutdown and direct the permitteé to implement a contingency reclamation plan under part 6132.1300.

D. In evaluating a request for an extension of a temporary shutdown, the commissioner shall:

(1) evaluate compliance with all state and federal permits;

(2) evaluate safety and stability of all mining facilities; and

(3) evaluate the need to implement corrective action procedures.

E. For a permanent shutdown, the permittee must implement the contingency reclamation plan under part 6132.1300 and comply with subitems (1) to (7).

(1) Accesses to underground mines shall be

promptly sealed as approved by the commissioner and the county mine inspector.

(2) Within six months after closure of a mine begins, the permittee shall:

(a) provide at least one safe access to the bottom of an open pit; and

(b) construct fences or other access barriers for safety under Minnesota Statutes, chapter 180.

(3) Within one year after closure begins, or within a longer period if approved by the commissioner, debris and mobile equipment that will not be used for reclamation shall be removed from the area being closed.

(4) Within three years after closure begins, or within a longer period if approved by the commissioner, the following shall be accomplished:

(a) roads, parking areas, and storage pads except those the commissioner considers necessary for access shall be removed;

(b) permittee-owned power plants and associated facilities except public utilities, transmission lines, pipelines, docks and associated facilities, and railroads except common carrier transportation facilities shall be removed or provisions made for continued subsequent use; and

(c) all other equipment, facilities, and structures shall be removed and foundations razed and covered with a minimum of two feet of surface overburden.

(5) Within three years after the start of the closure of basins constructed for the purpose of mining or processing, or within a longer period if approved by the commissioner, the permittee shall ~~drain~~ provide for drainage of the basins and reintegrate the area into the natural watershed.

(6) If, following closure, continued compliance with parts 6132.2000 to 6132.3200 cannot be achieved without continued maintenance of the facilities, the permittee shall:

(a) implement postclosure maintenance techniques designed to ensure that the requirements of parts

6132.2000 to 6132.3200 will continue to be met following closure;

(b) identify specifically how, when, and by whom the active techniques will be conducted or managed;

(c) identify performance levels or limitations that would have to be achieved before the techniques could be considered successful; and

(d) provide for financial assurance under part 6132.1200, subpart 1, item A.

(7) No release from the permit to mine under part ~~6132.1400~~ 6132.4800 shall be granted for those portions of the mining area that require postclosure maintenance until the necessity for maintenance ceases.

ADMINISTRATIVE PROCEDURES

6132.4000 PROCEDURES FOR OBTAINING A PERMIT TO MINE.

Subpart 1. **Application and publication.** The process for requesting a permit to mine begins with a preapplication conference and site visit under part 6132.1100, subpart 1, followed by the submission of an application to the commissioner under parts 6132.1000 to 6132.1400. After the commissioner determines the application is complete, the commissioner shall publish a notice in the State Register and the EQB Monitor stating the department has received an application for a permit to mine. The applicant shall also publish an advertisement as required by part 6132.4900. Within seven days after the last date of publication, the applicant shall submit to the commissioner a copy of the advertisement and an affidavit from the printer verifying publication. The application shall then be considered filed.

Subp. 2. **Objection to proposed mining operations.** Objection related to a proposed mining operation may be filed with the commissioner according to Minnesota Statutes, sections 93.44 to 93.51.

A. Written objections to a proposed mining operation and permit may be filed with the commissioner no later than 30

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days following the last date of publication of an applicant's newspaper advertisement required under part 6132.4900.

B. A person submitting an objection to the commissioner shall include the following information:

(1) a statement of the person's interest in the proposed mining operation and permit;

(2) a statement of the action that the person wants the commissioner to take, including specific references to applicable sections of Minnesota Statutes, sections 93.44 to 93.51, parts 6132.0100 to 6132.5300, or the permit application; and

(3) the reasons supporting the person's position, stated with sufficient specificity to allow the commissioner to investigate the merits of the person's position.

C. Within ten days after the receipt of the objection, the commissioner shall determine whether the person filing the objection meets one of the following criteria:

(1) owns property that will be affected by the proposed operation;

(2) is a federal, state, or local governmental agency having responsibilities affected by the proposed operation; or

(3) raises a material issue of fact, relating to the proposed operation, for which the commissioner has jurisdiction under Minnesota Statutes, sections 93.44 to 93.51, and there is a reasonable basis underlying the issue of fact such that holding a hearing would allow the presentation or introduction of relevant information that would aid the commissioner in resolving the issues and in making a final determination on the issuance of the permit to mine.

D. If objections were filed by a person meeting one of the criteria in item C, the commissioner shall attempt to resolve the issue by:

(1) allowing the applicant to change the operation to the mutual satisfaction of the objector and the commissioner, provided that a substantial change to the

operation may necessitate republication of the applicant's newspaper advertisement, with an explanation of the proposed change; or

(2) proceeding with a hearing under subpart 3.

E. If objections were filed by a person not meeting the requirements of item C, the commissioner shall inform the person of that fact, stating reasons for the decision, and proceed with processing the application as if no objection had been received.

Subp. 3. **Determination with hearing.** Hearings shall be held by the commissioner according to items A to C.

A. The commissioner shall conduct a hearing if:

(1) objections are received from a person meeting the requirements of subpart 2, item C, and the commissioner is unable to resolve the issue to the satisfaction of that person and the applicant under subpart 2, item D, subitem (1);

(2) the commissioner determines it will be necessary to require additional provisions or conditions not contained in the permit application before approval of the application; or

(3) the commissioner determines the application should be denied.

B. To conduct a hearing, the commissioner shall:

(1) select a hearing date no more than 30 days after the last date of opportunity to object;

(2) serve an order for hearing in the form and manner required by part 1400.5600, except that part 1400.5600, subpart 3, does not apply, and in no event shall such an order be served less than 20 days before the hearing;

(3) mail a copy of the order for hearing to the applicant, all persons who filed objections, and all local units of government in which all or a part of the operation is located; and

(4) publish notice of the subject, time, date, and place of the hearing at least once before the hearing in a newspaper that must be both a qualified newspaper under

Minnesota Statutes, section 331A.02, and circulated in the locality of the proposed mining operation.

C. Within 120 days after the close of the hearing record or 90 days after service of the hearing examiner's report, whichever comes later, the commissioner shall grant the permit with or without modifications or conditions or deny the permit stating reasons for the denial.

Subp. 4. **Determination without hearing.** The commissioner shall process the permit without a hearing according to items A and B.

A. No hearing is required if the commissioner determines that the proposed operation can be permitted without provisions or conditions and if within 30 days following the last date of publication of the applicant's newspaper advertisement:

(1) no objections were filed;

(2) objections were filed, but the person objecting did not meet the requirement of subpart 2, item C; or

(3) objections were filed but were resolved under subpart 2, item D, subitem (1).

B. Within 120 days after the last date on which a person can object to the proposed mining operation, the commissioner shall approve the application.

Subp. 5. **Review of annual report.** Each year following the granting of the permit to mine, the commissioner shall review the annual report required under part 6132.1300 to determine whether it complies with the provisions of the permit to mine. On completion of this review, the commissioner shall inform the permittee of the compliance determination.

A. If the annual report complies, the commissioner shall direct the permittee to implement the reclamation plan proposed for the upcoming year.

B. If the annual report does not comply, the commissioner shall:

(1) require the permittee to prepare an explanation of why the report does not comply with the permit to

mine, and what is proposed to achieve compliance;

(2) direct the permittee to take corrective action under part 6132.3200 to address the violations, deficiencies, or inadequacies that are reported to have occurred during the past year; or

(3) require the permittee to develop a new plan for activities to be conducted during the upcoming year that will comply with the permit to mine.

6132.4100 VARIANCES.

Subpart 1. **Application for variance.** A proceeding for requesting a variance from parts 6132.0100 to 6132.5300 begins when the permit applicant or permittee files an application for a variance with the commissioner. The application shall include information necessary for the commissioner to determine that the proposed variance is directed toward the attainment of the goals of parts 6132.0100 to 6132.5300 and is consistent with the general public welfare including, but not limited to:

A. how the alternative measure proposed is equivalent to or superior to that prescribed in the rule; and

B. how strict compliance with the rule will impose an undue burden on the applicant.

Under no circumstances will a variance be granted that varies a statutory standard.

Subp. 2. **Determination by commissioner.** Within 30 days after receipt of the application, the commissioner shall determine whether the proposed variance constitutes a substantial change from the requirements of parts 6132.0100 to 6132.5300.

A. If the commissioner determines that a substantial change would result, the applicant shall follow the procedures for permit to mine applications as provided in part 6132.4000.

B. If the commissioner determines that there would be no substantial change, and that the variance is in the public interest and meets the goals of parts 6132.0100 to 6132.5300, the variance shall be granted.

Subp. 3. **Simultaneous filing of applications.** Applications for variance from parts 6132.0100 to 6132.5300 may be filed simultaneously with an application for a permit to mine, provided that the advertisement contains all information required for applications for permits to mine and for variance.

6132.4200 AMENDMENT OF PERMIT TO MINE.

Subpart 1. **Application for amendment.** A proceeding for requesting an amendment of a permit to mine begins when the permittee files an application for an amendment with the commissioner. The application shall include information the commissioner requires to determine that the proposed amendment meets the requirements of parts 6132.0100 to 6132.5300 and state law.

Subp. 2. **Determination by commissioner.** Within 30 days after receipt of the application, the commissioner shall determine whether the proposed amendment constitutes a substantial change from the permit to mine.

A. If the commissioner determines that a substantial change would occur, the applicant shall follow the procedures for obtaining a permit to mine provided in part 6132.4000.

B. If the commissioner determines that there would be no substantial change, the amendment shall be granted.

6132.4300 MODIFICATION OF PERMIT TO MINE.

Subpart 1. **Conditions authorizing.** The commissioner may order the modification of a permit to mine when:

A. it is necessary to correct conditions that jeopardize public health or safety or that could result in injury to persons or property;

B. there is a violation of terms of the permit to mine or parts 6132.0100 to 6132.5300; or

C. new information related to reclamation becomes available that needs to be addressed and incorporated into the permit to mine.

Subp. 2. **Beginning of proceedings.** A proceeding to modify a permit to mine begins by serving on the permittee:

A. a notice of hearing under part 6132.5000; and

B. the proposed modification order.

6132.4400 CANCELLATION OF PERMIT TO MINE.

If within three years following the issuance of a permit to mine no substantial construction of plant facilities or actual mining has begun and no reclamation of the site is necessary, the commissioner may, with the consent of the permittee, cancel the permit to mine.

6132.4500 SUSPENSION OF PERMIT TO MINE.

Subpart 1. **Procedure.** If an emergency situation arises that results in imminent danger ~~to the public~~, the commissioner, by written order to the permittee, may at that time suspend any portion or portions of operations as necessary to protect:

A. public health and safety;

B. public interests in lands and waters; or

C. ~~individuals~~ persons and property.

Subp. 2. **Requirements.** The commissioner shall require the permittee to take all measures necessary to prevent or remedy the emergency situation.

Subp. 3. **Duration.** No suspension under this part shall be in effect more than 30 days without giving the permittee at least ten days' written notice of the order and an opportunity to be heard under part 6132.5000.

6132.4600 REVOCATION OF PERMIT TO MINE.

Subpart 1. **Conditions authorizing.** The commissioner may order the revocation of a permit to mine when:

A. it is necessary to stop conditions that jeopardize public health and safety or that could result in injury to persons or property; or

B. there is a violation of terms of the permit to mine or parts 6132.0100 to 6132.5300.

Subp. 2. **Beginning of proceedings.** A proceeding to revoke a permit to mine begins by serving on the permittee:

A. a notice of hearing under part 6132.5000; and

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B. the proposed revocation order.

6132.4700 ASSIGNMENT.

Under Minnesota Statutes, section 93.481, subdivision 5, the commissioner shall allow the assignment of a permit to mine only if the commissioner determines that the assignee will perform all outstanding obligations of law, parts 6132.0100 to 6132.5300, and the permit to mine.

6132.4800 RELEASE OF PERMITTEE.

Subpart 1. **Procedure.** The procedure to release the permittee from permit to mine responsibility on a reclaimed portion of the mining area begins when the permittee submits a request for release under part 6132.1400.

Subp. 2. **Determination by commissioner.** The commissioner shall review the request for release and inspect the site to be released to determine whether all terms and conditions of parts 6132.0100 to 6132.5300 and the permit to mine have been satisfied.

A. If the commissioner determines that the terms and conditions of parts 6132.0100 to 6132.5300 and the permit to mine have not been satisfied, the permittee shall follow the procedures for obtaining a permit to mine described in part 6132.4000.

B. If the commissioner determines that the terms and conditions of parts 6132.0100 to 6132.5300 and the permit to mine have been satisfied, the commissioner shall release the permittee from further responsibility for the reclaimed portion.

C. If the commissioner determines that the request for release relates to requirements for permanent shutdown, pursuant to part 6132.3200, subpart 2, item E, the permittee shall follow the procedures for obtaining a permit to mine described in part 6132.4000.

Subp. 3. **Postclosure maintenance.** No release from a permit to mine shall be approved for a portion of the mining area requiring postclosure maintenance until the necessity for maintenance ceases.

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6132.4900 PUBLICATION.

Subpart 1. **Newspaper; contents.** When an advertisement is required relating to the issuance, amendment, variance, or release from a permit to mine, it shall be published by the permittee once each week for four successive weeks in a qualified newspaper under Minnesota Statutes, section 331A.02, that is circulated in the locality of the proposed mining operation. The advertisement must contain:

A. a statement and map indicating the locations and boundaries of the mining area;

B. surface and mineral ownership within the mining area based on information of record in the county recorder's office. An owner's agent may be identified in place of the owner;

C. the schedule for accomplishing what is being proposed;

D. a notice of the deadline date for filing objections; and

E. the following information:

(1) if application is made for a permit to mine, a description of the proposed mining operation including the general kinds of reclamation or restoration measures to be undertaken according to the reclamation plan;

(2) if an amendment to a permit to mine is requested, a description of the purpose and nature of the proposed amendment;

(3) if a variance from parts 6132.0100 to 6132.5300 is requested, a description of the purpose and nature of the requested variance and a description of the proposed alternative means that will be used to meet the goals and comply with the requirements of parts 6132.0100 to 6132.5300; or

(4) if a release from the permit to mine is requested, a description of the status of reclamation that has been performed, a discussion of planned uses for the land, and identification of how the land is intended to be managed.

Subp. 2. **Revocation; modification; suspension of permit.** When an advertisement is required under part 1400.5600, subpart 4, relating to the revocation, modification, or suspension of a permit to mine, or relating to the assessment of civil penalties, a notice of hearing and the commissioner's proposed order shall be published by the commissioner as follows:

A. once in the State Register and the EQB Monitor at least 30 days before the scheduled date of hearing; and

B. once each week during the four weeks preceding the scheduled date of hearing, in a qualified newspaper according to Minnesota Statutes, ~~chapter 331A~~ section 331A.02, that is circulated in the locality of the proposed mining operation.

6132.5000 HEARING PROCEDURES.

Procedures established by parts 1400.5100 to 1400.8500 apply to a contested case hearing under parts 6132.0100 to 6132.5300, except as otherwise provided in Minnesota Statutes, sections 93.44 to 93.51, and parts 6132.0100 to 6132.5300.

6132.5100 CIVIL PENALTIES.

Subpart 1. **Violation.** If a permittee violates any provision of Minnesota Statutes, sections 93.44 to 93.51, parts 6132.0100 to 6132.5300, or a permit to mine issued under them, the commissioner may order imposition of a civil penalty.

Subp. 2. **Beginning of proceedings.** A proceeding to assess civil penalties begins by serving on the permittee:

A. a notice of hearing under part 6132.5000; and

B. the proposed civil penalty imposition order.

Subp. 3. **Determining the amount.** In determining the amount of a penalty, the commissioner shall consider the severity of the violation, the need to deter future violations, and the magnitude of potential or actual gains resulting from the violation.

Subp. 4. **Duration.** The assessment of the civil penalty shall remain in effect until the violation that necessitated the penalty is corrected.

Subp. 5. **Collection.** The commissioner shall collect an

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assessed civil penalty in the same manner as any other debt owed the state.

6132.5200 INSPECTION OF MINING AREA.

The permittee shall allow the commissioner to inspect all mining operations and records needed to monitor compliance with the permit to mine and parts 6132.0100 to 6132.5300.

6132.5300 WETLAND MITIGATION AND REPLACEMENT PROCEDURES.

Subpart 1. **Authority.** In accordance with Minnesota Statutes, section 103G.222, no draining or filling of wetlands resulting from mining shall occur unless a wetland replacement plan, approved by the commissioner, is incorporated into the mining and reclamation plans of a mining operation for which a permit to mine is required. The replacement plan shall apply the principles and standards contained in the section entitled "Standards and Procedures for Evaluating Wetland Replacement Plans" of chapter 8410, wetland rules, adopted pursuant to Minnesota Statutes, section 103G.2242.

Subp. 2. **Procedure.** The procedures for replacement plan approval shall be those contained in chapter 8410, wetland rules, adopted pursuant to Minnesota Statutes, section 103G.2242, with the commissioner acting as the approving authority. Upon the receipt of an approved replacement plan, the plan shall be incorporated into the permittee's mining and reclamation plan by inclusion in the annual report, pursuant to part 6132.1300, subpart 3, item H.

Because of the time necessary to process wetland replacement plans, it is advisable to initiate this process well in advance of the point when any given annual report is required to be submitted, if the permittee wants to initiate wetland replacement during the upcoming year described in that annual report.

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