

STATE OF MICHIGAN  
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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# Michigan's Mine Reclamation Regulations

Natural Resources and Environmental Protection Act  
Act No. 451 of the Public Acts of 1994, as amended

## Part 631



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## Part 631 - Reclamation of Mining Lands

AN ACT to amend 1994 PA 451, entitled "An act to protect the environment and natural resources of the state; to codify, revise, consolidate, and classify laws relating to the environment and natural resources of the state; to regulate the discharge of certain substances into the environment; to regulate the use of certain lands, waters, and other natural resources of the state; to prescribe the powers and duties of certain state and local agencies and officials; to provide for certain charges, fees, and assessments; to provide certain appropriations; to prescribe penalties and provide remedies: to repeal certain parts of this act on a specific date; and to repeal certain acts and parts of acts," by amending section 63101 (MCL 324.63101), as added by 1995 PA 57, and by adding sections 63103a, 63103b, 63103c, 63103d, and 63103e.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;-- Am. 1997, Act 149, Imd. Eff. Dec. 2, 1997

### 324.63101 Definitions.

Sec. 63101. As used in this part:

(a) "Administratively complete" means an application for a mining permit under this part that is determined by the department to satisfy all of the conditions of this part and rules promulgated under this part.

(b) "Department" means the department of environmental quality.

(c) "Life of the mine" means the period of time from issuance of a permit under this part through the completion of reclamation as required by this part.

(d) "Metallic mineral" means metallic ore or material mined for its metallic content.

(e) "Metallic mineral operator" means a person who owns or leases the plant and equipment utilized in a metallic mineral mining area and is engaged in the business of mining metallic minerals or preparing to engage in mining operations for metallic minerals.

(f) "Metallic product" means a commercially salable metallic mineral in its final marketable form or state.

(g) "Mineral" means any substance to be excavated from the natural deposits on or in the earth for commercial, industrial, or construction purposes, including gypsum, limestone, dolostone, sandstone, shale, metallic mineral, or other solid materials. Mineral does not include clay, gravel, marl, peat, inland sand or sand mined for commercial or industrial purposes, from sand dune areas regulated under part 637, or coal regulated under part 635.

(h) "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 minerals by surface or open pit mining methods, the lands on which material from that mining is deposited, the lands on which beneficiating or treatment plants and auxiliary facilities are located, the lands on which the water reservoirs used in the mining process are located, and auxiliary lands which are used.

(i) "Operator" means a metallic mineral operator or other persons engaged in or preparing to engage in mining operations for the production of mineral products.

(j) "Stockpile" means material, including, but not limited to, surface overburden, rock, or lean ore, which in the process of mining and beneficiation or treatment has been removed from the earth and stored on the surface, but excluding materials that are being treated in the production of mineral products and the mineral product that has been produced by that operation.

(k) "Supervisor of reclamation" means the state geologist.

(l) "Surface or open pit mining" means the mining of more than 10,000 tons of a mineral or disturbing more than 1 acre of land a year in the regular operation of a business by removing the overburden lying above a natural deposit of a mineral and mining directly from the natural deposit exposed or by mining directly from a deposit lying exposed in the mineral's natural state. Surface or open pit mining includes all mining below the water table or which will upon cessation of mining result in creating a body of water of any size. Surface or open pit mining does not include excavation or grading preliminary to a construction project.

(m) "Tailings basin" means land on which is deposited, by hydraulic or other means, the material that is separated from the mineral product in the beneficiation or treatment of minerals including any surrounding dikes constructed to contain the material.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;--Am. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### 324.63102 Survey of mining areas; factors considered.

Sec. 63102. The supervisor of reclamation shall conduct a comprehensive study and survey to determine, consistent with the intent of this part, the extent and type of regulation of mining areas necessary in the public interest. The supervisor of reclamation shall consider all of the following:

- (a) The effects of mining upon the environment.
- (b) The effects of mining upon future use of the land upon completion of mining.
- (c) The effects of mining upon wise use and protection of the natural resources, including, but not limited to, the control of erosion, the prevention of land or rock slides, and air and water pollution.
- (d) The future and economic impact of the regulations upon mine operators and landowners, the surrounding communities, and this state.
- (e) The effect of regulation on employment in this state.
- (f) The effect of regulation on the future mining and development of metallic minerals.
- (g) The practical problems of mine operators and mineral owners.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63103 Mining operations; rules.**

Sec. 63103. On completion of the study and survey provided for in section 63102, the department may promulgate rules pertaining to mining operations conducted subsequent to their effective date and subject to the provisions of any rights existing pursuant to any permit, license, lease, or other valid existing authorization issued by a governmental entity, and subject to applicable mine safety laws or rules for the following purposes:

- (a) The sloping, terracing, or other practical treatment of stockpiles and tailings basins where erosion is occurring or is likely to occur that results or may result in injury or damage to fish and wildlife or the pollution of public waters or that is causing or might cause injury to the property or person of others.
- (b) The vegetation or other practical treatment of tailings basins and stockpiles upon becoming permanently inactive where substantial natural vegetation is not expected within 5 years and where research reveals that vegetation can reasonably be accomplished within practical limitations.
- (c) The stabilization of the surface overburden banks of open pits in rock and the entire bank of open pits in unconsolidated materials upon their abandonment.
- (d) The cleanup of plantsite and mining areas and the removal of debris from those areas on termination of the mining operation.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63103a Mining of metallic minerals; permit required.**

Sec. 63103a. (1) After October 1, 1997, a metallic mineral operator shall not engage in the mining of metallic minerals without first obtaining a permit for that purpose from the department. A metallic mineral operator engaged in or carrying out a metallic mining operation as of the effective date of this section shall apply for a permit to mine 1 year after the effective date of this section. Any such existing metallic mining operation may continue mining until the department issues or denies a permit for the metallic mining operation.

- (2) Prior to receiving a permit from the department, a metallic mineral operator shall submit the following:
  - (a) A permit application on a form provided by the department.
  - (b) A mining and reclamation plan for the proposed metallic mining activity as prescribed by section 63103b.

History: Add. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### **324.63103b Mining and reclamation plan.**

Sec. 63103b. The mining and reclamation plan submitted under section 63103a, for the total project, shall include all of the following:

- (a) The method and direction of mining.
- (b) Surface overburden stripping plans.
- (c) The depth of grade level over the entire site from which the metallic mineral will be removed.
- (d) Provisions for grading, revegetation, and stabilization that will minimize soil erosion, sedimentation, and public safety concerns.
- (e) The location of buildings, equipment, stockpiles, roads, or other features necessary to the mining activity and provisions for their removal and restoration of the area at the project termination.
- (f) The interim use or uses of reclaimed areas before the cessation of the entire mining operation.
- (g) Maps and other supporting documents required by the department.

(h) Fencing or other techniques to minimize trespass or unauthorized access to the mining activity.

(i) If required by the department when mining activity below the water table is proposed, a hydrogeological survey of the surrounding area.

(j) If threatened or endangered species are identified, an indication of how the threatened or endangered species will be protected or, if not protected, what mitigation measures will be performed.

(k) If the proposed mining activity includes beneficiation or treatment of the metallic ore or material mined for its metallic content, the application documents shall include specific plans depicting the beneficiation and treatment methods and techniques, and manufacturer's material safety data sheets on all chemicals or other additives that are not natural to the site, that will be utilized in the process. The operator shall obtain all applicable state and federal permits before beginning the beneficiation process.

History: Add. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### **324.63103c Metallic mineral mining permit.**

Sec. 63103c. (1) A metallic mineral mining permit issued by the department is valid for the life of the mine. However, the department may revoke a metallic mineral mining permit under the following conditions:

(a) The person holding the permit has not commenced construction of plant facilities or conducted actual mining and reclamation activities covered by the permit within 3 years after the date of issuance of the permit.

(b) The permittee requests the revocation of the metallic mineral mining permit and the department determines the mining activity has not polluted, impaired, or destroyed the air, water, or other natural resources or the public trust in those resources, as provided in part 17.

(c) The permittee fails to submit the annual report of production as required by section 63103d(2).

(d) The department finds that the permittee is not in compliance with this part, the rules promulgated under this part, or the metallic mineral permit and there exists an imminent threat to the health and safety of the public.

(2) The department may order immediate suspension of any or all activities at a metallic mineral mining operation, including the removal of metallic product from the site, if the department finds there exists an emergency endangering the public health and safety or an imminent threat to the natural resources of the state.

(3) An order suspending operations shall be in effect for the shorter of the following time periods: not more than 10 days, or until the operation is in compliance and protection of the public health and safety is ensured or the threat to the natural resources has been eliminated. To extend the suspension beyond 10 days, the department shall issue an emergency order to continue the suspension of operations and shall schedule a hearing as provided by the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. The total duration of the suspension of operations shall not be more than 30 days.

(4) A metallic mineral mining permit may be transferred to a new person with approval of the department. The person acquiring the permit shall submit a request for transfer of the permit to the department on forms provided by the department. The person acquiring the permit shall accept the conditions of the existing permit and adhere to the requirements set forth on the approved mining and reclamation plan. Pending the transfer of the existing permit, the person acquiring the permit shall not operate the mine.

(5) A metallic mineral mining permit shall not be transferred to a person who has been determined to be in violation of any of the following, until the person acquiring the permit has corrected the violation or the department has accepted a compliance schedule and a written agreement has been reached to correct the violations:

(a) This part.

(b) The rules promulgated under this part.

(c) Permit conditions.

(d) An order of the department of environmental quality.

(6) If the permittee of a metallic mineral mining operation is under notice because of unsatisfactory conditions at the mining site involved in the transfer, then the permit for the mining operation shall not be transferred to a person until the permittee has completed the necessary corrective actions or the person acquiring the permit has entered into a written agreement to correct all of the unsatisfactory conditions.

(7) Upon receipt of an application for a permit, the department shall have up to 60 days to review the application to determine if the application is accurate and complete. If the application is determined to be inaccurate or incomplete, then the department shall provide the person making the application for a permit, within the 60-day period, with a notice that the application is inaccurate or incomplete and what changes or additional information shall be submitted. Upon receipt of the requested information, the department shall have up to an additional 30 days to review the information to determine if the application is accurate and complete. Upon completion of the review process, the department shall approve or deny a metallic mineral mining permit application in writing within 60 days after the application is determined by the department to be administratively complete. A determination of administrative completeness shall not be construed to mean that additional information may not be required from the applicant as a result of new circumstances that come to the attention of the department. If a metallic mineral permit is denied, the reasons shall be stated in a written report to the applicant.

(8) A metallic mineral mining permit may be amended upon submission to the department of a request by the permittee. Upon receipt of the request to amend an existing metallic mineral permit, the department shall determine if the request constitutes a significant change from the conditions of the approved permit. If the department determines the request is a significant change from the conditions of the approved permit, the department may submit the request for amendment to the same review process as provided in section 63103c(7). If a request to amend the permit is denied, the reasons for denial shall be stated in a written report to the permittee. If the department determines the request for amendment does not constitute a significant change from the conditions of the approved permit, the department shall approve the amendment and notify the permittee.

History: Add. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### **324.63103d Metallic mineral surveillance fee; annual report of production.**

Sec. 63103d. (1) For purposes of surveillance, monitoring, administration, and enforcement of this part, a metallic mineral operator shall be assessed a metallic mineral surveillance fee on the metallic product produced for the calendar year reported as described in subsection (2). The fee shall be assessed upon each metallic product at the following rates: gold shall be not more than 9.4 cents per troy ounce, silver shall not be more than 0.13 cents per troy ounce, copper shall not be more than 0.03 cents per pound, and iron shall not be more than 1 cent per metric ton. Funds collected by the assessment of the metallic mineral surveillance fee shall not exceed the actual costs to the department of implementing the sections of this part that pertain to metallic mineral mining. Surveillance fees collected under this section shall be forwarded to the state treasurer for deposit in the metallic mineral surveillance fee fund created in section 63103e.

(2) A metallic mineral operator shall file an annual report of production on or before February 15 of each year. The report shall contain the annual production of metallic product from each metallic mineral mine.

(3) The metallic mineral surveillance fee described in subsection (1) shall be due not more than 30 days after the department sends written notice to the metallic mineral operator of the amount due.

(4) Failure to submit an annual report of production in compliance with rules promulgated by the department constitutes grounds for revocation of a permit.

(5) A penalty equal to 10% of the amount due, or \$1,000.00, whichever is greater, shall be assessed against the metallic mineral operator for a fee that is not paid when due. An unpaid fee and penalty shall constitute a debt and become the basis of a judgment against the operator. Penalties paid pursuant to this section shall be used for the implementation, administration, and enforcement of this part.

(6) Records upon which the annual report of production is based shall be preserved for 3 years and are subject to audit by the department.

History: Add. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### **324.63103e Metallic mineral surveillance fund.**

Sec. 63103e. (1) The metallic mineral surveillance fund is created within the state treasury.

(2) The state treasurer may receive money or other assets from any source for deposit into the metallic mineral surveillance fund. The state treasurer shall direct the investment of the metallic mineral surveillance fund. The state treasurer shall credit to the metallic mineral surveillance fund interest and earnings from fund investments.

(3) Money in the metallic mineral surveillance fund at the close of the fiscal year shall remain in the metallic mineral surveillance fund and shall not lapse to the general fund.

(4) The department shall expend money from the metallic mineral surveillance fund, upon appropriation, only for surveillance, monitoring, administration, and enforcement under this part and for computing the surveillance fee under section 63103d.

History: Add. 1997, Act 149, Imd. Eff. Dec. 2, 1997.

### **324.63104 Mining operations; variance or modification from rules.**

Sec. 63104. The supervisor of reclamation, on application by the landowner or operator, may modify or permit variance from the rules promulgated under this part if the supervisor of reclamation determines that the modification or variance is not contrary to the public interest.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63105 Supervisor of reclamation; administration of part and rules; powers.**

Sec. 63105. The supervisor of reclamation shall administer and enforce this part and the rules promulgated under this part. The supervisor of reclamation may do any of the following:

(a) Consult with and obtain the assistance of the other divisions of the department.

(b) Enter on the mining areas in connection with any investigation and inspection without liability to the operator or landowner if reasonable prior notice of the intention to do so has been given to the operator or landowner.

(c) Conduct research or enter into contracts related to mining areas and the reclamation of mining areas as may be necessary to implement this part.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63106 Plan maps; filing by operator; form; annual changes; long-range plans.**

Sec. 63106. For the purpose of information and to assist the supervisor of reclamation in proper enforcement of rules promulgated under this part, an operator shall file with the supervisor of reclamation a plan map in the form determined by the supervisor of reclamation showing all existing mining areas or areas subjected to mining by the operator. Annually thereafter, on or before March 15, the operator shall file a plan map in similar form showing any changes made during the preceding calendar year and the mining area that the operator anticipates will be subjected to mining during the current calendar year. The supervisor of reclamation periodically shall ascertain the long-range land environment plans of the operator.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63107 Performance bond, security, or assurance of operator.**

Sec. 63107. The supervisor of reclamation, if he or she has reasonable doubts as to an operator's financial ability to comply with the rules promulgated under this part as to actions to be taken after completion of mining operations or any phase of mining operations, may require an operator to furnish a performance bond or other security or assurance satisfactory to the supervisor of reclamation. The supervisor of reclamation may postpone furnishing of the bond, security, or assurance depending upon the life of the mining operation.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

### **324.63108 Injunctive relief to prevent violation of rules.**

Sec. 63108. At the request of the supervisor of reclamation, the attorney general may institute an action in a circuit court of the county in which the mining operation affected is conducted for a restraining order or injunction or other appropriate remedy to prevent or preclude a violation of the terms and conditions of any rule promulgated under this part.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

## Part 1. General Provisions

### R 425.1 Purpose; other laws neither superseded nor contravened.

**Rule 1.** These rules implement the act and do not supersede or contravene any provisions of law regarding the inspection or regulation of mining, water and air pollution, soil erosion and sedimentation, or water impoundments.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.2 Definitions.

**Rule 2.** (1) "Abandoned" or "abandonment" means termination of mining operations, or cessation of use of the mining area or any portion thereof, with intent not to resume.

(2) "Act" means Act No. 92 of the Public Acts of 1970, as amended, being S425.181 et seq. of the Michigan Compiled Laws. Terms defined in the act have the same meaning when used in these rules.

(3) "Environment plan" means an operator's written proposal for reclamation of the mining area or portion thereof.

(4) "Lean ore" means a mineral which is not recoverable under existing economic conditions or technology.

(5) "Reclamation" means that reconditioning or rehabilitation of the mining area or portions thereof for useful purposes and the protection of the natural resources, including the control of erosion and the prevention of land or rock slides and air and water pollution.

(6) "Reclamation plan" means an environment plan that is approved by the supervisor.

(7) "Surface overburden" means earth materials, including sand, gravel, and clay, lying above bedrock.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.3 Exploration.

**Rule 3.** Removal of overburden and extraction of limited amounts of materials is not open-pit mining when done only for the purpose of exploration and to the extent necessary to determine the location, quantity, or quality of a mineral deposit. If the disturbed land does not become a part of a mining operation within 2 years, the operator shall grade and revegetate within practical limitations and in a manner acceptable to the supervisor.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.4 Notice of removal of materials.

**Rule 4.** (1) An operator proposing to remove materials in connection with the production or extraction of minerals by open-pit mining methods shall submit written notice to the supervisor as follows:

(a) At least 30 days prior to the commencement of mining within a new mining area.

(b) Within 30 days of a change of ownership in an ongoing operation.

(2) The notice shall include the following:

(a) Name and address of operator.

(b) Mineral to be mined.

(c) Location of mining property by fraction of section and township and range.

(d) For new operations, the date mining will commence.

(e) Name, address, and telephone number of person with official authority to represent operator in reclamation matters.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.5 Annual plan map.

**Rule 5.** (1) An accurate plan map on a topographic base, with an appropriate scale as approved by the supervisor, shall be submitted in duplicate to the supervisor annually on or before March 15.

(2) The map shall show the following as of December 31 of the previous year, or as near to December 31 of the previous year as operations permit, color-coded and with legend, so as to distinguish:

(a) Location and boundary of the mining area.

- (b) Mine plant or plants.
- (c) Open pit or pits.
- (d) Surface overburden stockpiles.
- (e) Waste rock stockpiles.
- (f) Lean ore stockpiles.
- (g) Streams, lakes, and reservoirs.
- (h) Tailings basins.
- (i) Roads.

(j) Sequential numbers or letters or other method, as approved by the supervisor, permanently assigned to portions of the mining area which have been abandoned prior to abandonment of the total mining operation.

(k) Changes in the mining area during the preceding year, indicated by vertical (north-south) crosshatching or other method as approved by the supervisor.

(l) Anticipated changes in the mining area during the current year, indicated by horizontal (east-west) crosshatching or other method as approved by the supervisor.

(m) Elevations of stockpiles and tailings basins.

(n) Drainage on and away from the mining area, showing directional flow of water in drainage ways, natural watercourses, and streams, intermittent and flowing, including discharge from the mining operation.

(o) Name of the geologist, engineer, or surveyor responsible for the preparation of the map.

(p) Date of preparation.

(3) The map shall be accompanied by a report on any reclamation work accomplished, or experimental reclamation work performed, during the preceding year.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.6 Notice of abandonment; evidence of continuing use.

**Rule 6.** (1) An operator shall submit written notice to the supervisor within 6 months of the abandonment of the mining area or any portion thereof.

(2) When activities on or use of the mining area, or any portion thereof, have ceased for more than 1 year, or when, by examination of the premises or other means, the supervisor determines that the mining area or any portion thereof has in fact been abandoned by an operator, the supervisor shall give the operator written notice of his intention to declare the mining area or portion thereof abandoned. Determinations by the supervisor shall be made on sound mining practices.

(3) Within 30 days following receipt of the notice, the operator shall have an opportunity to submit evidence that the use of the mining area or portion thereof is continuing. If the supervisor finds the evidence satisfactory, he shall not make the declaration.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.7 Report of reclamation activities; statement; accompanying data.

**Rule 7.** Within 30 days after abandonment of the mining area or any portion thereof, and annually thereafter on or before March 15 until the reclamation is completed and approved by the supervisor, an operator shall submit to the supervisor a detailed report of reclamation activities, completed during the preceding year, and a statement of the amount and nature of reclamation to be performed during the current year. The report shall be accompanied by maps and any other data which clearly demonstrate the progress and success of reclamation activities.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.8 Environment plan.

**Rule 8.** (1) Upon request of the supervisor, an operator shall submit his long-range environment plan for the mining area.

(2) An operator, on his own initiative, may submit an environment plan covering the mining area or any portion thereof to the supervisor at any time prior to abandonment.

(3) An environment plan shall include the following:

- (a) A detailed description of the mining area.

(b) The reclamation problems involved.

(c) The operator's plan of action to prevent erosion and pollution, to attain revegetation, and to achieve the ultimate reclamation of the mining area in accordance with the purposes and requirements of the act and the rules adopted thereunder.

(d) An estimate time schedule for completion of the plan, and the proposed purpose for which the land is to be used upon completion.

(e) Estimated cost of reclamation.

(f) Other pertinent information that the supervisor may deem necessary.

(4) If circumstances warrant, or if development of an environment plan is dependent upon unknown factors which cannot or will not be determined except during the progress of the operation, a partial plan may be submitted and supplemented as new plans are developed.

(5) If the surface landowner and the operator are 2 separate persons, the surface landowner shall be given an opportunity to comment on the operator's environment plan before the operator submits the plan to the supervisor.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## **R 425.9 Evaluation of environment plan.**

**Rule 9.** (1) Upon receipt of an environment plan, the supervisor shall evaluate it in terms of the reclamation required by the act. The supervisor may consult with and obtain assistance of other divisions of the department in the evaluation process. The supervisor may reject a plan or any part thereof, and shall give reasons in writing, together with recommendations for modification of a plan to meet his objections, if the reclamation specified by a plan does not conform to the requirements of the act and these rules, or if, in the opinion of the supervisor, it is not feasible or is otherwise undesirable because of the following:

(a) Erosion is likely to occur in the sloping, terracing, or other treatment of stockpiles and tailings basins, which may result in injury or damage to fish and wildlife or the pollution of public waters or which may cause injury to the property or person of others.

(b) Vegetation or other practical treatment of tailings basins and stockpiles, upon becoming permanently inactive, is not satisfactory.

(c) The surface overburden banks of open pits in rock, and the entire bank of open pits in unconsolidated materials, upon their abandonment will not be stabilized.

(d) The cleanup of plantsite and mining areas, and the removal of debris therefrom on termination of the mining operation, will not be satisfactory.

(2) If the supervisor rejects an environment plan, an operator may resubmit the plan as revised so as to meet the supervisor's objections.

(3) If an environment plan is satisfactory, the supervisor shall approve it and promptly notify the operator by written statement that compliance with the plan by the operator fulfills the requirements of the act with respect to the mining area or any portion thereof involved. The approval of an environment plan for a long-lived mining operation may be conditioned on periodic review in light of new research and changed reclamation technology. An approved environment plan shall be referred to as the reclamation plan.

(4) A reclamation plan may be modified at any time by mutual consent of the supervisor and operator to adjust to changed conditions or technology, or to correct an oversight.

(5) The supervisor may modify the reclamation plan when:

(a) Modification of the plan is necessary so that it will conform with existing laws.

(b) The supervisor determines that the previously approved plan is clearly impossible or clearly impractical to implement and maintain.

(c) The supervisor determines that the previously approved plan is obviously not accomplishing the intent of the act.

(6) When an operator disposes of his interest in a mining area prior to approval of reclamation by sale, lease, assignment, termination of lease, or otherwise, the supervisor may release the operator from the duties imposed upon him by the act and rules as to the operation, but only if the successor operator or owner assumes the obligations of the former operator with reference to the reclamation of the mining area.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.10 Conducting reclamation activities concurrently with mining operations.

**Rule 10.** Reclamation activities, particularly those relating to control of erosion and air and water pollution, to the extent feasible, shall be conducted by the operator concurrently with the mining operation, and in any event shall be initiated at the earliest possible time after abandonment of any portion of the mining area.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.11 Reclamation upon termination or abandonment.

**Rule 11.** (1) An operator shall remove all worthless debris and rubbish from the plantsite and mining area within 1 year of the date of termination of operations or abandonment of the property.

(2) A mining area shall be reclaimed by an operator pursuant to the act, these rules, and the reclamation plan within 2 years after abandonment or within the time set forth in the operator's reclamation plan approved by the supervisor.

(3) Upon written request of an operator, the supervisor may grant an extension of the reclamation period if necessary to accomplish acceptable reclamation.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.12 Notice and approval of completed reclamation.

**Rule 12.** (1) An operator shall submit written notice to the supervisor upon completion of reclamation work on the mining area or portions thereof.

(2) The supervisor shall proceed promptly to make his determination as to the approval of the reclamation work and shall notify the operator in writing of either the approval of the work or all reasons for disapproval. The supervisor may consult with and obtain the assistance of other divisions of the department in making his determinations.

(3) Approval of vegetative cover shall not be granted until the planting has survived at least 2 growing seasons with reasonable assurances of being self-sustaining.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.15 Surety or security bond.

**Rule 15.** (1) The supervisor, if he has reasonable doubts as to an operator's financial ability to comply with the rules as to actions to be taken after completion of mining operations, or any phase thereof, may require an operator to file a surety bond in an amount equal to the expected cost of reclamation for each acre, or fraction thereof, of the area subjected to mining.

(2) In determining the amount of the surety bond or security bond the supervisor shall take into consideration the character and nature of the lands to be reclaimed, the future suitable use of the land involved, and the cost of the reclamation to be required.

(3) A security bond in the amount equal to the required surety bond may be deposited in lieu of a surety bond. A security bond shall consist of cash or negotiable securities and shall be deposited with the department of treasury. The securities shall be registered in the name of the state treasurer, who shall charge a fee sufficient to reimburse him for not less than actual and necessary expenses incurred in connection with the deposits.

(4) The supervisor shall have reasonable doubts as to an operator's financial ability to comply with the rules as to actions to be taken after completion of mining operation or any phase thereof when, upon the request of the supervisor, the operator cannot demonstrate that he has the financial ability to perform the reclamation as required by the act and rules.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## R 425.16 Liability on surety or security bond.

**Rule 16.** (1) Liability on a surety bond or security bond is conditioned upon compliance with the act and these rules, and continues until the mining area reclamation is completed and approved by the supervisor.

(2) The supervisor shall advise the surety and the principal when liability is terminated on a bond filed for the portion or the whole of the mining area reclaimed. A security bond deposited with the state treasurer shall be released only upon written direction of the supervisor.

(3) The supervisor shall look to the surety or the security bond for correction of unsatisfactory conditions not otherwise corrected, and all expenses shall be paid through the surety or security bond in case of default by the principal.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## Part 2. Reclamation of Open Pits

### R 425.21 Stockpiling of surface overburden.

**Rule 21.** Unless otherwise authorized by the supervisor, surface overburden removed in the development of an open pit shall be stockpiled separately from other materials.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.22 Surface overburden banks.

**Rule 22.** Surface overburden banks shall be sloped at an angle which will minimize erosion, promote vegetation, and be consistent with a proposed use of the area. The bank, or that portion above the projected level of a body of water formed in the open pit, shall be stabilized by the planting of a vegetative cover appropriate to a future use of the land.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.23 Rock banks.

**Rule 23.** (1) Pit banks in rock shall not have a prescribed angle of slope, but precautions shall be taken to provide adequate safety.

(2) Where, upon termination of mining operations, a body of water of sufficient area and depth results which is used for residential, recreation, or wildlife purposes, if natural conditions do not exist, portions of the solid rock bank shall be stepped or other measures taken to permit a person to escape from the water.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.24 Sloping and grading within open pit.

**Rule 24.** Unless it is anticipated that an open pit will be flooded after abandonment, any waste rock or residual materials within the pit shall be sloped and graded so as to promote regeneration of vegetation.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.25 Backfilling of pit; approval of sanitary landfill.

**Rule 25.** Backfilling of a pit is not required, but any backfilling shall be with nontoxic, nonflammable, noncombustible solids, unless approved for a sanitary landfill. Plans for use as a sanitary landfill shall be accompanied by written approval of the appropriate state agency.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

## Part 3. Reclamation of Stockpiles

### R 425.31 Top surface of stockpile.

**Rule 31.** The top surface of a stockpile shall be reduced to a topography which provides proper drainage and favorable conditions for revegetation, minimizes erosion, and is consistent with a future sequential use of the mining area.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.32 Surface overburden stockpiles.

**Rule 32.** (1) Surface overburden stockpiles shall be sloped at an angle which minimizes erosion, promotes vegetation, and is consistent with a future use of the mining area.

(2) Where substantial natural vegetation is not expected within 5 years, or where erosion is occurring, or where the supervisor finds erosion likely to occur, which results or may result in injury or damage to fish and wildlife, the pollution of air or water, or which is causing or might cause injury to the property or person of others, surface overburden stockpiles shall be stabilized by planting with a vegetative cover, or by other treatment, to prevent erosion or pollution or injury.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### R 425.33 Rock or lean ore stockpiles.

**Rule 33.** (1) Rock or lean ore stockpiles shall be sloped at an angle to minimize the possibility of land or rock slides and to be consistent with a future use of the mining area.

(2) Unless otherwise authorized by the supervisor, waste rock stockpiles shall be covered with surface overburden sufficient to provide for vegetation, particularly on the slopes or surfaces visible from public roads.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.34 Stockpiles erosion, or sliding.**

**Rule 34.** Where a stockpile is eroding or sliding and resulting in injury or damage, or the operator has reason to believe that erosion or sliding may result in injury or damage to fish and wildlife, the pollution of public waters, injury to persons or damage to adjacent property not intended for use in mining, or where the supervisor finds that injury or damage is likely to occur, the operator shall take immediate steps, such as grading, sloping, removal, or other stabilization, to correct the condition.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.35 Acid-forming, toxic, flammable, or combustible material.**

**Rule 35.** All acid-forming, toxic, flammable, or combustible material from the mining process shall be stockpiled so as to minimize erosion by air and water and to prevent pollution of the air and surface and ground water. Preventive measures required by the supervisor may include covering the piles with clean fill or mixing with them a material that is not acid-forming, toxic, flammable, or combustible and graded so that surface water drains away from disposal area.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

### **Part 4. Reclamation of Tailings Basins and Auxiliary Lands**

#### **R 425.41 Tailings basin dikes.**

**Rule 41.** (1) Before a person constructs a dike or dam for a tailings basin, including an impoundment of water for clarification or reuse, that person shall determine whether Act No. 184 of the Public Acts of 1963, as amended, being S281.131 et seq. of the Michigan Compiled Laws, or Act No. 346 of the Public Acts of 1972, being S281.951 et seq. of the Michigan Compiled Laws, is applicable.

(2) If not constructed of concrete, asphalt, or a similar material, a dike or dam of a tailings basin, including an impoundment of water for clarification or reuse, shall be constructed so that the outer face is capable of being stabilized by vegetation or other treatment to the satisfaction of the supervisor.

(3) Where erosion of a dike of a tailings basin, including an impoundment of water for clarification or reuse, is occurring, or is likely to occur, and where that erosion results or may result in loss of the confined tailings, injury or damage to fish or wildlife, the pollution of air or water, or which might cause injury to the property or person of others, the dike shall be repaired. Earthen dikes shall be stabilized by planting with a vegetative cover or by other treatment to the satisfaction of the supervisor.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.42 Tailings basin drainage system.**

**Rule 42.** A suitable system shall be constructed to regulate or control drainage of water, including surface run-off, from within the diked area of a tailings basin to prevent breaching of the dikes, both during and after termination of the mining operation. The system may consist of, but is not limited to, decant towers, erosion-resistant spillways, or solid rock ledge overflow.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.43 Stacked tailings.**

**Rule 43.** Stacked tailings within a tailings basin shall be reduced to a slope which will permit effective vegetation or other treatment for the control of erosion.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.44 Stabilization of tailings basin.**

**Rule 44.** (1) Where substantial natural vegetation is not expected within 5 years after abandonment, and where research reveals that vegetation can be accomplished within practical limitations, that portion of a tailings basin not covered by water shall be planted with a vegetative cover appropriate to a future use of the land and to prevent air and water erosion and pollution. Vegetation which has potential for providing a rapid, permanent, adequate, economical cover shall be given priority.

(2) Where vegetation reasonably cannot be accomplished within practical limitations, the tailings basin shall be stabilized by other treatment to prevent air and water erosion and pollution.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.45 Dike protection.**

**Rule 45.** If a substantial area and depth of water are to remain within a diked area of a tailings basin after abandonment, that portion of the inner face of the dike which might be subject to erosion by wave action shall be protected by riprap or other erosion-resistant solid cover.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.46 Borrow pits.**

**Rule 46.** (1) The banks of borrow pits in the mining area used for dike or other construction, and located outside the tailings basin, shall be sloped at an angle which will minimize erosion and promote vegetation.

(2) Where substantial natural vegetation is not expected within 5 years, or where erosion is occurring, or the supervisor finds it likely to occur, which results or may result in injury or damage to fish and wildlife or the pollution of air or water, the pit shall be planted with a vegetative cover appropriate to a future use of the land and to prevent erosion.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.47 Abandoned roads.**

**Rule 47.** Abandoned roads in the mining area, upon termination of the mining operation, shall be graded or otherwise prepared to minimize erosion and to promote vegetation. If necessary, abandoned roads shall be stabilized by the planting of an appropriate vegetative cover.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.48 Investigation and inspection of mining areas.**

**Rule 48.** Investigation and inspection of mining areas by the supervisor or his authorized representative may include, but not be limited to:

- (a) Inspection of all mining areas.
- (b) Taking photographs.
- (c) Taking and removal of soil and plant samples.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.

#### **R 425.49 Hearings and judicial review.**

**Rule 49.** (1) An interested person who feels aggrieved by an action or inaction of the supervisor may request a contested hearing on the matter involved. Also, the supervisor on his own motion may commence a hearing for the purpose of receiving information before issuing an order. The hearing shall be conducted by the supervisor in accordance with provisions for contested cases in Act No. 306 of the Public Acts of 1969, as amended, being S24.201 et seq. of the Michigan Compiled Laws.

(2) A determination, action, or inaction by the supervisor following the hearing shall be subject to judicial review as provided in Act No. 306 of the Public Acts of 1969, as amended.

History: 1954 ACS 89, Eff. Nov. 17, 1976; 1979 AC.