

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WATER DIVISION -
WATER QUALITY PROGRAM
ADMINISTRATIVE CODE

CHAPTER 335-6-9
SURFACE MINING RULES

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335-6-9-.01 Purpose.

This Chapter is promulgated in order to protect, maintain and improve the quality of waters of the state and to provide for the prevention, abatement and control of new or existing water pollution associated with surface mining operations.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8. Effective: June 10, 1982. **Amended:** October 10, 1984.

History:

335-6-9-.02 Definitions.

The following words and phrases, unless a different meaning is plainly required by the context, shall have the following meanings:

(a) "advance prospecting" shall mean the removal of overburden for the purpose of determining the location, quality or quantity of a natural deposit in an area not to exceed two acres per forty acre tract.

(b) "discharge" shall mean any addition of any pollution to any stream.

(c) "non-point source pollution" shall mean sources, other than point sources, from which pollution is or may be added to any stream.

(d) "NPDES Rules" shall mean applicable National Pollutant Discharge Elimination System Rules of the Department.

(e) "overburden" shall mean the strata or material overlying a natural deposit of coal, lignite, bauxite, gravel, gold, marble, or any other mineral in its natural state, and shall mean such strata or material both before and after its removal by surface mining.

(f) "pit" shall mean any tract of land from which overburden has been or is being removed for the purpose of surface mining.

(g) "point source pollution" shall mean any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit or well from which pollution is or may be added to any stream.

(h) "sedimentation basin, settling pond or collection pool" shall mean any natural or artificial structure, depression or body of water into which waters used in any phase of the mineral washing process are discharged for treatment, to include solids removal, pH adjustment or other necessary operations.

(i) "stream" shall mean any body of water having a drainage area in excess of one square mile.

(j) "surface mining" shall mean all or any part of the process of recovering coal, lignite, iron, clay, sand, bauxite, gravel, ores, gold, marble or any other material or mineral by removal of such mineral from the surface or by removal or displacement of the strata or material which overlies such mineral deposits in its natural condition, and shall include but not be limited to the open-pit or open-cut method, the auger method and the highwall mining method. As used in this Chapter, "surface mining" shall not be interpreted to include dredging operations or advance prospecting.

(k) "surface mining operation" shall mean all of the premises, facilities, roads and equipment used for the process of surface mining in a designated area.

(l) "surface mining operator" shall mean any person, firm, corporation or partnership engaged in or controlling a surface mining operation including any agent or independent contractor engaged in surface mining under a contract with such person, firm, corporation or partnership.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

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335-6-9-.03 Pollution Abatement And/Or Prevention Plan.

(1) All surface mining operations shall be conducted in such a manner as to minimize their impact on water quality to avoid contravention of applicable water quality standards. To this end, all surface mine operators shall provide the Department with a pollution abatement and/or prevention plan.

(2) The pollution abatement and/or prevention plan shall be prepared and certified by a registered professional engineer, licensed to practice engineering in the State of Alabama, as required by Chapter 335-6-3, and shall be submitted in a format acceptable to the Department's staff. The plan shall include, as a minimum, the following:

(a) name and address of the operator and a legal description of the area to be mined.

(b) general information, including name and affiliation of company, number of employees, product(s) to be mined, hours of operation and water supply and disposition.

(c) topographic map showing location of mine, preparation plant, settling basin and all wastewater discharge points.

(d) method and plan for diverting surface water runoff from operational areas and mineral and refuse storage piles.

(e) narrative account of operation(s) explaining and/or defining raw materials, processes and products. Blockline or schematic diagrams indicating points of waste origin and its collection and disposal shall be included.

(f) quantity and characteristics of waste after treatment with respect to flow, suspended solids, total iron and pH.

(g) description of waste treatment facilities, pretreatment measures and recovery systems including expected life of sedimentation basins and schedules for cleaning or proper abandonment of such basins. If earthen sedimentation basins are a portion of the treatment scheme, plans for the construction of these facilities should meet minimum construction criteria as found in the Guidelines in Appendix A.

(h) a plan to eliminate or minimize sediment and other pollutants from haul roads must be included and should meet minimum design criteria as established by the Guidelines in Appendix B.

(i) location of all streams in or adjacent to the mining area and those measures which will be taken to minimize the impact on water quality when the mining operation is located in close proximity to such streams. Such measures may include but not be limited to setbacks, buffer strips or screens.

(j) those measures to be employed to minimize the effect of any non-point source pollution which may be generated as a result of the surface mining operation.

(k) all pollution abatement facilities must be certified by the design engineer as being constructed in accordance with the approved plans.

(l) the applicant shall specify if the proposed mining operation is to be constructed in the watershed of an impoundment classified as a public water supply or a direct tributary thereon.

(m) the Department shall publish, and revise as necessary, guidelines which shall be the basis for formulating pollution abatement and/or prevention plans required by this Chapter.

(n) any other information required for NPDES permit applications under applicable NPDES Rules.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 13, 1978; October 19, 1979; January 10, 1981; October 10, 1984.

335-6-9-.04 Acceptance Of Plan.

Upon review of the plan required in Rule 335-6-9-.03, the Department shall notify the operator, in writing, of the acceptance or rejection of his plan. If such plan is accepted, the Department shall issue a permit to conduct the mining operation and operate any waste treatment facility required in the plan. If such plan is not accepted, the applicant shall be advised of the reasons of such rejection.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 10, 1981; October 10, 1984.

335-6-9-.05 Permit Required.

(1) All surface mining operations must have an NPDES permit issued by the Department pursuant to this Chapter. Such permits shall conform with, and be issued in accordance with, NPDES Rules.

(2) The permit to conduct any surface mining operation shall be based on a determination by the Department that the pollution abatement and/or prevention plan and accompanying data submitted by the applicant is adequate to provide for protection of water quality in and adjacent to the area of operations and the pollution abatement and/or prevention plan and any amendments or modifications thereto shall become a part of the permit upon its acceptance.

(3) Any waste treatment facility required in the pollution abatement and/or prevention plan shall be specifically identified in the permit and any special conditions applicable to the operation of such facilities shall be included.

(4) Effluent limitations, for point source pollution, monitoring requirements and compliance schedules, if necessary for each applicant, will be specified in the permit conditions.

(5) Permits issued pursuant to this Rule shall be valid for a period of five years from the date of issuance, unless suspended, modified or revoked.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 13, 1978; October 19, 1979; January 10, 1981; October 10, 1984.

335-6-9-.06 Special Limitations.

(1) No operator shall conduct his operation in such a manner as to place, or cause to be placed into a stream, soil, rock, trees, overburden or any other debris or material associated with mining operations.

(2) No untreated wastewater from a mineral preparation plant, washing operation or contaminated surface runoff from mineral storage piles or refuse piles shall be discharged into any stream.

(3) All water which is used to wash coal, gravel or other minerals shall be directed to specially constructed sedimentation basins or abandoned mines. The location and construction of such basins and/

or the utilization of any abandoned mine for disposal, must be approved by the Department.

(4) No earthen sedimentation basin utilized in conjunction with mining operations shall be abandoned without staff approval or without release of all reclamation bonds by either the Alabama Surface Mining Commission or the Alabama Department of Industrial Relations. The Department staff shall be notified in writing of the intent to either abandon, reclaim or permanently leave sediment ponds with such notification including those measures to be taken by the operator to comply with this Chapter.

(5) In no event shall effluent limitations applicable to any waste treatment facility be less stringent than any applicable state law, rule, interim rule, guideline, or interim guideline, or any federal law, regulation, interim regulation, guideline or interim guideline, whichever is the more stringent, which is in effect at the time permit conditions for such facilities are derived.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 13, 1978; January 10, 1981; October 10, 1984.

335-6-9-.07 Setbacks.

(1) All setbacks established under Alabama Law are incorporated by reference.

(2) Setbacks on other water courses shall be determined as necessary to protect water quality.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 13, 1978; January 10, 1981; October 10, 1984.

335-6-9-.08 Implementation.

(1) Applicants who wish to begin a new operation shall comply with the provisions of this Chapter prior to commencing such operation.

(2) Those surface mining operators currently holding valid waste discharge permits for mineral preparation or washing facilities or surface mining permits, as issued by the Alabama Water Improvement Commission, need not apply for a new permit for such facilities until notified of any necessary revisions, deletions, additions or other changes needed to bring such permits in compliance with this Chapter.

Author: Joe Myers

Statutory Authority: Code of Ala. 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

History: Effective: June 14, 1974. **Amended:** January 13, 1978; January 10, 1981; October 10, 1984.

335-6-9-A Guidelines For Minimizing The Effects Of Surface Mining.

**GUIDELINES FOR MINIMIZING THE EFFECTS OF SURFACE MINING AND
SURFACE EFFECTS OF UNDERGROUND MINING ON WATER QUALITY**

Recognizing that there are wide variations in the circumstances and conditions surrounding and arising out of the strip mining and underground mining processes, such variables include but not limited to topography, climatic conditions, location of material deposits and soil types, the rules adopted by the Department are of a broad, general nature. They have been designed to provide flexibility to both the Department and the mine operator in preparing a plan of operation with each plan being tailored to a specific set of conditions. The following guidelines should be used as minimum criteria in formulating any pollution abatement and/or prevention plan required by Rule 335-6-9-.03 adopted by the Department and for any plan which the technical staff may require to minimize the surface effects of underground mining on water quality.

APPENDIX A

Sedimentation Controls

- (1) Pollution abatement facilities should be designed and constructed so as to control both spoil runoff and pit drainage.
- (2) Pit drainage and spoil runoff should be diverted through the sedimentation basin by means of diversion ditches or normal drainage patterns. In cases where it is not practical to use this system, then natural vegetation, vegetative windrows, hay berms, earthen berms or other equally effective systems may be utilized.
- (3) The sediment basin should have a minimum capacity to store 0.25 acre feet/acre of disturbed area in the drainage area. The basin shall be cleaned out when the sediment accumulation approaches 60 percent of the design capacity. All trees, boulders and other obstructions must be removed from the basin during the initial construction phase to facilitate clean-out.

(4) The dam for the sediment basin should be designed and built using the following as minimum criteria:

(a) the top of the dam should be no less than 12 feet wide.

(b) the slope on either side of the dam should be no steeper than 3:1.

(c) the dam should be constructed with a cutoff trench at least 8 feet wide. The side slopes should be no less than 1:1. The cutoff trench shall be located on the dam centerline and be of sufficient depth (not less than 2 feet) to extend into a relatively impervious layer of soil or to bedrock and shall be filled with a relatively impervious material from which the core of the dam shall be constructed.

(d) the entire embankment and cutoff trench shall be compacted to 95 percent density, based on standard proctor as outlined in ASTM.

(e) the material placed in the embankment should be free to sod, roots, stones over 6 inches in diameter and other objectionable materials. The fill material should be placed and spread over the entire fill area, starting at the lowest point of the foundation, in layers not to exceed 12 inches in thickness. Construction of the fill should be undertaken only at such times that the moisture content of the fill material will permit satisfactory compaction in accordance with subparagraph (4) (d) above.

(f) the spillpipe should be sized to adequately carry the expected peak flow from a one-year frequency storm.

(g) the spillpipes should be made of a material capable of withstanding chemical reactions caused by the quality of the water being discharged.

(h) the spillpipe should be equipped with a device, or constructed, such to ensure that subsurface withdrawal is accomplished in order to ensure that no floating solids are discharged.

(i) the spillpipes should be equipped with anti-seep collars at each joint which radiate at least 2 feet from the pipe in all directions. The collars and their connections to the pipe should be watertight.

(j) a splash pad or riprap should be placed under the discharge of the spillpipe, or the location of the discharge set, so as to ensure that the discharge does not erode the dam.

(k) the emergency spillway should be designed to safely carry the expected peak flow from a 25 year, 24 hour storm or shorter duration. When designing spillways that are in the drainage course of a public water supply, then 50 years, 24 hour or shorter duration data should be used. The slope of the entrance and exit to the emergency overflow should not exceed 3 percent. The emergency overflow should be constructed with a control section at least 20 feet long. The side slopes of the emergency overflow should not be steeper than 2:1. The emergency overflow should be riprapped or concreted in order to prevent erosion.

(l) there should be a minimum of 1 1/2 feet of freeboard between the normal overflow and the emergency overflow. There should be at least 1 1/2 feet of freeboard between the maximum design flow elevation in the emergency overflow and the top of the dam.

(m) if basins are built in series, then the emergency overflow for each should be designed to accommodate the entire drainage area.

(n) the dam should be sowed with both perennial and annual grasses in order to ensure erosion is minimized. Hay bails or riprap should be placed at the toe of the dam immediately upon completion of construction.

(5) Areas in which surface mined minerals are stockpiled, and areas in which refuse resulting from any type of mining operation is or has been deposited, should be provided with diversion ditches or other appropriate methods of intercepting surface water in such a way as to minimize the possibility of sediment laden, acidic or toxic waters from such areas, being deposited into a stream.

APPENDIX B

Haul Roads

(1) In order to minimize sediment from haul roads:

(a) no sustained grade should exceed 10 percent;

(b) the maximum grade should not exceed 15 percent for 300 feet;

(c) there should not be more than 300 feet of 15 percent maximum grade for each 1,000 feet of road constructed;

(d) the haul road, wherever possible, should be located so that runoff from the road enters a sediment basin constructed for the mining operation.

(e) outer slopes for haul roads out of the permitted area should not be steeper than 2:1 and should be seeded with annual and perennial grasses with at least 80 percent cover to avoid erosion. Where this is not possible, basins, hay filters or diversion ditches should be cut, built or placed to intercept runoff. Details outlining control measures must be included with the abatement plan.

(2) Stream crossings should be avoided; however, any crossings which are necessary and which meet technical staff approval should be detailed with drawings and any other pertinent data in the pollution abatement plan, using best engineering practices.

Author: ADEM

Statutory Authority: Code of Ala. 1975,

History: