Rules of  
Department of Natural Resources  
Division 40—Missouri Mining Commission  
Chapter 4—Permanent Performance Requirements for Special Mining Activities

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Title 10—DEPARTMENT OF NATURAL RESOURCES  
Division 40—Missouri Mining Commission  
Chapter 4—Permanent Performance Requirements for Special Mining Activities  

10 CSR 40-4.010 Coal Exploration Requirements  

PURPOSE: This rule sets forth the requirements for conducting coal exploration activities pursuant to 444.810 and 444.845, RSMo.  

Editor’s Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.  

(1) General Responsibility of Persons Conducting Coal Exploration. Each person who conducts coal exploration shall obtain a permit, as required under 10 CSR 40-6.020, and all operations which substantially disturb the natural land surface regardless of how much coal is removed shall comply with section (3) of this rule.  

(2) Required Documents. Each person who conducts coal exploration which substantially disturbs the natural land surface, while in the exploration area, shall have available a copy of the exploration permit for review by the authorized representative of the director or commission upon request.  

(3) Performance Standards for Coal Exploration.  

(A) Habitats of unique or unusually high value for fish, wildlife and other related environmental values and critical habitats of threatened or endangered species identified pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531-1543) shall not be disturbed during coal exploration.  

(B) All roads or other transportation facilities used for coal exploration shall comply with the applicable provisions of 10 CSR 40-3.140(1)-(23).  

(C) If excavations, artificially flat areas or embankments are created during exploration, these areas shall be returned to the approximate original contour promptly after these features are no longer needed for coal exploration.  

(D) Topsoil shall be separately removed, stored and redistributed on areas disturbed by coal exploration activities as necessary to assure successful revegetation or as required by the director or commission.  

(E) All areas disturbed by coal exploration activities shall be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective and permanent vegetative cover. Revegetation shall be accomplished in accordance with the following:  

1. All areas disturbed by coal exploration activities shall be seeded or planted to the same seasonal variety native to the areas disturbed. If the land use of the exploration area is intensive agriculture, planting of the crops normally grown will meet the requirements of this paragraph; and  

2. The vegetative cover shall be capable of stabilizing the soil surface from erosion.  

(F) Diversions of overland flows and ephemeral, perennial or intermittent streams shall be made in accordance with 10 CSR 40-3.040(3) and (4).  

(G) Each exploration hole, borehole, well or other exposed underground opening created during exploration shall be reclaimed in accordance with 10 CSR 40-3.020(1)-(3).  

(H) All facilities and equipment shall be promptly removed from the exploration area when they are no longer needed for exploration, except for those facilities and equipment that the director or commission determines may remain to—  

1. Provide additional environmental data;  

2. Reduce or control the on- and off-site effects of the exploration activities; or  

3. Facilitate future surface mining and reclamation operations by the person conducting the exploration.  

(I) Coal exploration shall be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance in accordance with 10 CSR 40-3.040(1)-(3), (5)-(7) and (9)-(12). The director or commission may specify additional measures which shall be adopted by the person engaged in coal exploration.  

(J) Acid- or toxic-forming materials shall be handled and disposed of in accordance with 10 CSR 40-3.040(1) and (9) and 10 CSR 40-3.080. The director or commission may specify additional measures which shall be adopted by the person engaged in coal exploration.  


10 CSR 40-4.020 Auger Mining Requirements  

PURPOSE: This rule sets forth the requirements for auger mining pursuant to sections 444.810 and 444.855.2(9), RSMo.  

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.  

(1) Permanent program performance standards—auger mining requirements set forth in 30 CFR Part 785.20, as in effect on January 1, 2018, are incorporated by reference in this rule. Copies may be obtained by contacting the U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000 or online at https://www.gpo.gov. This rule does not incorporate any subsequent amendments or additions.  


10 CSR 40-4.030 Operations on Prime Farmland  

PURPOSE: This rule outlines the procedure for surface coal mining and reclamation on prime farmland pursuant to 444.810 and 444.855, RSMo.  

Editor’s Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state.
state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.

(1) Special Requirements. Surface coal mining and reclamation operations conducted on prime farmland shall have a permit for those operations obtained under 10 CSR 40-6.060(4).

(2) Scope and Purpose. This rule sets forth special environmental protection, performance, reclamation and design standards for surface coal mining and reclamation operations on prime farmland.

(3) Responsibilities.
   (A) The United States Natural Resources Conservation Service within each state is responsible for establishment of specifications for prime farmland soil removal, storage, replacement and reconstruction.
   (B) The Land Reclamation Commission shall use the soil reconstruction specifications of subsection (3)(A) of this rule to carry out its responsibilities under 10 CSR 40-6.060(4) and 10 CSR 40-7.

(4) Applicability. The requirements of this rule shall not apply to—
   (A) Coal preparation plants, support facilities, and roads of underground mines that are actively used over extended periods of time and where such uses affect a minimal amount of land. Such uses shall meet the requirements of 10 CSR 40-3.
   (B) Disposal areas containing coal mine waste resulting from underground mines that is not technologically and economically feasible to store in underground mines or on non-prime farmland. The operator shall minimize the area of prime farmland used for such purposes.
   (C) Prime farmland that has been excluded in accordance with 10 CSR 40-6.060(4)(A).

(5) Soil Removal and Stockpiling.
   (A) Prime farmland soils shall be removed from the areas to be disturbed before drilling, blasting or mining.
   (B) The minimum depth of soil and soil materials to be removed and stored for use in the reconstruction of prime farmland shall be sufficient to meet the requirements of subsection (6)(B).
   (C) Soil removal and stockpiling operations on prime farmland shall be conducted to—
      1. Separately remove the topsoil or remove other suitable soil materials where these other soil materials will create a final soil having a greater productive capacity than that which existed prior to mining. If not utilized immediately, this material shall be placed in stockpiles separate from the spoil and all other excavated materials; and
      2. Separately remove the B or C horizon or other suitable soil material to provide the thickness of suitable soil required by subsection (6)(B). If not utilized immediately, each horizon or other material shall be stockpiled separately from the spoil and all other excavated materials. Where combinations of the soil materials created by mixing have been shown to be equally or more favorable for plant growth than the B horizon, separate handling is not necessary.

   (D) Stockpiles shall be placed within the permit area where they will not be disturbed or be subject to excessive erosion. If left in place for more than thirty (30) days, stockpiles shall meet the requirements of 10 CSR 40-3.030(3) or 10 CSR 40-3.190(3).

(6) Soil Replacement.
   (A) Soil reconstruction specifications established by the United States Natural Resources Conservation Service shall be based upon the standards of the National Cooperative Soil Survey and shall include, as a minimum, physical and chemical characteristics of reconstructed soils and soil descriptions containing soil horizon depths, soil densities, soil pH and other specifications so that reconstructed soils will have the capability of achieving levels of yield equal to, or higher than, those of nonmined prime farmland in the surrounding area.
   (B) The minimum depth of soil and substitute soil material to be reconstructed shall be forty-eight inches (48") or a lesser depth equal to the depth to a subsurface horizon in the natural soil that inhibits or prevents root penetration or a greater depth if determined necessary to restore the original soil productive capacity. Soil horizons shall be considered as inhibiting or preventing root penetration if their physical or chemical properties or water-supplying capacities cause them to restrict or prevent penetration by roots of plants common to the vicinity of the permit area and if these properties or capacities have little or no beneficial effect on soil productive capacity.
   (C) The operator shall replace and regrade the soil horizons or other root zone material with proper compaction and uniform depth.
   (D) The operator shall replace the B horizon, C horizon or other suitable material specified in section (5) to the thickness needed to meet the requirements of subsection (6)(B) of this rule.
   (E) The operator shall replace the topsoil or other suitable soil materials specified in section (5) as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original surface soil layer, as determined by the soil survey.

   (F) The operator shall assure that nutrients and soil amendments are applied as approved in the permit and plan. The application rates shall be sufficient to quickly establish vegetative growth prior to proving vegetative productivity and also during the phase III bond release period to insure that desired levels of productivity are attained.

(7) Revegetation and Restoration of Soil Productivity.
   (A) Following prime farmland soil replacement, the soil surface shall be established with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.
   (B) Prime farmland soil productivity shall be restored in accordance with the following provisions:
      1. Measurements of soil productivity shall be initiated in accordance with 10 CSR 40-3.120;
      2. Soil productivity shall be measured on a representative sample or on all of the mined and reclaimed prime farmland area using the crops determined under paragraph (7)(B)6 of this rule. A statistically valid sampling technique at a ninety percent (90%) or greater statistical confidence level shall be used as approved by the Land Reclamation Commission in consultation with the United States Natural Resources Conservation Service;
      3. The measurement period for determining average annual crop production (yield) shall be a minimum of three (3)-crop years prior to release of the operator’s Phase III liability. These three (3) years need not be consecutive but must be within the five (5)-year Phase III liability period;
      4. The level of management applied during the measurement period shall be the same as the level of management used on nonmined prime farmland in the surrounding area;
      5. Restoration of soil productivity shall be considered achieved when the average yield during the measurement period equals or exceeds the average yield of the crop established for the same period of nonmined soils of the same or similar texture or slope phase of the soil series in the reference area under equivalent management practices;
      6. The reference crop on which restoration of soil productivity is proven shall be selected from the crops most commonly produced on the surrounding prime farmland. Where row crops are the dominant crops
grown on prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one (1) of the reference crops for one (1) of the three (3) years. If hay is the most commonly grown crop, then the second most commonly grown crop will be used. In the other two (2) years, other commonly grown crops on prime farmland within the county will be used;

7. Under the procedure in subsection (7)(B) of this rule, the crop yield may be adjusted, with the concurrence of the United States Natural Resources Conservation Service and approval of the director, for—
   A. Disease, pest- and weather-induced seasonal variations; or
   B. Difference in specific management practices where the overall management practices of the crops being compared are equivalent; and

8. Plans for proving Phase III bond release on prime farmlands, including crops to be grown and location of test plots, must be approved in advance by the director.


**10 CSR 40-4.040 Operations on Steep Slopes**

**PURPOSE:** This rule sets forth the requirements for operation on steep slopes pursuant to sections 444.810 and 444.835, 4, RSMo.

**PUBLISHER’S NOTE:** The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Permanent program performance standards—steep slope mining requirements set forth in 30 CFR Part 785.15 as in effect on January 1, 2018, are incorporated by reference in this rule. Copies may be obtained by contacting the U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000 or online at https://www.gpo.gov. This rule does not incorporate any subsequent amendments or additions.


**10 CSR 40-4.050 Requirements for Coal Processing Plants and Support Facilities Not Located at or Near the Mine Site or Not Within the Permit Area for a Mine**

**PURPOSE:** This rule sets forth requirements for coal processing plants and support facilities not located at or near the mine site or not within the permit area for a mine, pursuant to section 444.810, RSMo.

(1) Applicability. Each person who conducts surface coal mining and reclamation operations, which includes the operation of a coal processing plant or support facility which is not located within the permit area for a specific mine, shall obtain a permit to conduct those operations and comply with this rule.

(2) Signs and markers for the coal processing plant, coal processing waste disposal area and water treatment facilities shall comply with 10 CSR 40-3.010.

(3) Roads, transport and associated structures shall be constructed, maintained and reclaimed in accordance with 10 CSR 40-3.140(1)–(22).

(4) Any stream or channel realignment shall comply with 10 CSR 40-3.040(4).

(5) If required in the permit and plan, any disturbed area related to the coal processing plant or associated facilities shall have sediment control structures, in compliance with 10 CSR 40-3.040(5) and (6), and all discharges from these areas shall meet the requirements of 10 CSR 40-3.040(1) and (2) and any other applicable state or federal law.

(6) Permanent impoundments associated with coal processing plants shall meet the require-
10 CSR 40-4.060 Concurrent Surface and Underground Mining

PURPOSE: This rule sets forth the requirements for concurrent surface and underground mining pursuant to sections 444.810 and 444.855.2(12) and .2(16), RSMo.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Permanent program performance standards—concurrent surface and underground mining requirements set forth in 30 CFR Part 785.18 as in effect on January 1, 2018, are incorporated by reference in this rule. Copies may be obtained by contacting the U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000 or online at https://www.gpo.gov. This rule does not incorporate any subsequent amendments or additions.

AUTHORITY: section 444.810, RSMo 2016.*


10 CSR 40-4.070 In Situ Processing

PURPOSE: This rule sets forth the requirements for in situ processing pursuant to section 444.810, RSMo.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Permanent program performance standards—in situ processing requirements set forth in 30 CFR Part 785.22 as in effect on January 1, 2018, are incorporated by reference in this rule. Copies may be obtained by contacting the U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000 or online at https://www.gpo.gov. This rule does not incorporate any subsequent amendments or additions.

AUTHORITY: section 444.810, RSMo 2016.*


10 CSR 40-4.080 Previously Mined Areas

PURPOSE: This rule brings Missouri’s regulations into line with the federal language.

(1) Remining operations on previously mined areas that contain a preexisting highwall shall comply with the requirements of 10 CSR 40-3.110 or 10 CSR 40-4.040, except as provided in this rule.

(2) The requirements of 10 CSR 40-3.110(1)(B) and (2)(A) requiring the elimination of highwalls shall not apply to remining operations where the volume of all reasonably available spoil is demonstrated in writing to the regulatory authority to be insufficient to completely back fill the reaffected or enlarged highwall. The highwall shall be eliminated to the maximum extent technically practical in accordance with the following criteria:

(A) All spoil generated by the remining operation and any other reasonably available spoil shall be used to backfill the area. Reasonably available spoil in the immediate vicinity of the remining operation shall be included within the permit area;

(B) The backfill shall be graded to a slope which is compatible with the approved post-mining land use and which provides adequate drainage and longterm stability;

(C) Any highwall remnant shall be stable and not pose a hazard to the public health and safety or to the environment. The operator shall demonstrate, to the satisfaction of the regulatory authority, that the highwall remnant is stable; and

(D) Spoil placed on the outslope during previous mining operations shall not be disturbed if the disturbances will cause instability of the remaining spoil or otherwise increase the hazard to the public health and safety or to the environment.

AUTHORITY: section 444.530, RSMo 1986.*