
* F I N A L F I L E *

WEST VIRGINIA ADMINISTRATIVE REGULATIONS
Department of Natural Resources

Chapter 20-1
Series VII
1965

Subject: Reclamation Rules and Regulations - Duties of the Operator

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Section 1. Surface Mining of Coal

1.01. Regrading

(a) Cover the face of coal at the base of the highwall.

(b) Bury, insofar as practicable, all pyritic shale and other potential acid forming materials.

(c) Provide adequate drainage for disposal of all storm and seepage water and conduct same to a safe outlet as rapidly as practicable.

(d) Whenever surface mining operations are conducted on lands, the surface of which is in Land Use Capability Class I, II, or III, as determined from soil survey maps of the Soil Conservation Service, U. S. Department of Agriculture, on file in individual county offices of the Soil Conservation Service, and regrading the spoil material will render it suitable for the production of annual agricultural crops, such as, corn, wheat, tobacco or potatoes, such spoil shall be graded in a manner which will result in a finished slope of not more than 10% in the direction of the highwall.

1.02. Revegetation--Planting will be done in accordance with plans and specifications approved by the Department of Natural Resources for each individual operation.

Section 2. Surface Mining Other Than Coal

2.01. Regrading

(a) Bury, insofar as practicable, all pyritic shale and other potential acid forming materials.

(b) Provide adequate drainage for disposal of all storm and seepage water and conduct same to a safe outlet as rapidly as practicable.

2.02. Revegetation--Planting will be done in accordance with plans and specifications approved by the Department of Natural Resources for each individual operation.

STATE OF WEST VIRGINIA
RECLAMATION COMMISSION

March 30, 1972

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE 3-30-72

The Honorable John D. Rockefeller, IV
Secretary of State
State Capitol Building
Charleston, West Virginia 25305

Dear Secretary Rockefeller:

Enclosed are two (2) copies of the West Virginia Surface Mining Reclamation Regulations, designated Series VII of Chapter 20-6.

I hereby certify that the attached regulations are true and accurate copies of official regulations adopted by the West Virginia Reclamation Commission.

Sincerely,

Ira S. Latimer, Jr.

Ira S. Latimer, Jr.
Chairman

ISL:bgn

Enclosures

cc: Mr. Charles W. Lewis

WEST VIRGINIA SURFACE MINING RECLAMATION REGULATIONS

Department of Natural Resources

FILED IN THE OFFICE OF
SECRETARY OF STATE
THIS DATE 3-30-72

Chapter 20-6
Series VII
(1971)

INDEX

WEST VIRGINIA SURFACE MINING RECLAMATION REGULATIONS

Department of Natural Resources

FILED IN THE OFFICE OF
SECRETARY OF STATE
THIS DATE 3/30/72

Chapter 20-6
Series VII
(1971)

Subject: Rules and regulations pertaining to the reclamation of areas disturbed by prospecting and surface mining operations, particularly with regard to requirements for conversion, permits, performance bonds, haulageways, blasting, drainage, method of operation, backfilling and regrading, revegetation, other mining operations on disturbed areas, quarries, modifications and State and Federal compliance.

SECTION 1. GENERAL

1.01. Scope - These regulations established general and specific rules for conversion, for the construction of haulageways, for blasting, for drainage, for method of operation, for backfilling and regrading, for the revegetation of lands disturbed by prospecting and surface mining operations, for bonds and permits, for other mining operations, for quarries, for modifications and for State and Federal compliance.

1.02. Authority - These regulations are issued under the authority of Article 6, Chapter 20, Code of West Virginia, as amended.

1.03. Effective Date - These regulations were promulgated on the 30th day of March, 1972 and become effective on the 1st day of May, 1972.

1.04. Filing Date - These regulations were filed in the Office of the Secretary of State on the 30th day of March, 1972.

SECTION 2. DEFINITIONS: UNLESS THE CONTEXT IN WHICH USED CLEARLY REQUIRES A DIFFERENT MEANING, AS USED IN THESE REGULATIONS OR AS REFERRED TO IN ARTICLE 6, CHAPTER 20, CODE OF WEST VIRGINIA, AS AMENDED:

2.01. Acidity shall mean the capacity of water to donate protons. The symbol pH referring to the degrees of acidity or alkalinity. On this scale, pH of 1

is the strongest acid, pH of 14 is the strongest alkali, pH of 7 is the point of neutrality.

2.02. Acid-producing materials shall mean mineral compounds which will, when acted upon by water and air, cause acids to form.

2.03. Acid-producing overburden shall mean material that may cause spoil which upon chemical analysis, show a pH of 3.5 or less. Seams commonly associated with such material may include, but not be limited to, Freeport, Sewickley, Redstone, Pittsburgh, Kittanning, Elk Lick, Peerless, No. 2 Gas, Upper Eagle, No. 5 Block and Sewell.

2.04. Active surface mine operation shall mean an operation where land is being disturbed or mineral is being removed.

2.05. Area surface mining shall mean open-cut or multiple-cut mining carried out on level to gently-rolling topography, which does not produce a bench.

2.06. Auger mining shall mean mining of coal from an exposed vertical coal face by means of mechanically-driven boring machine which employs an auger to cut and remove the coal.

2.07. Backfill shall mean to place material back into an excavation and return the area to a predetermined slope.

2.08. Base of highwall shall mean the intersection of the vertical plane with the horizontal plane at any point in the overburden, spoil, or mineral.

2.09. Bench shall mean the result of surface mining in areas where the average slope or the original ground has an inclination of more than thirty per cent (30%) from the horizontal, being: (a) the leveled surface of an excavated area measured horizontally at any point in the overburden, spoil, or mineral between the base of the highwall and outer point of original fill bench; or (b) a working base extending from the base of a highwall on which excavating equipment

can set, move and operate.

2.10. Bench width shall mean the width of the bench as measured horizontally from the base of the highwall to the outer point of the original fill bench.

2.11. Completion of mining shall mean an operation where no mineral has been removed or overburden removed for a period of two consecutive months, unless the operator, within thirty (30) days of receipt of the director's notification declaring completion, submits sufficient evidence that the operation is in fact not completed.

2.12. Contour surface mining shall mean the removal of overburden and the mining of a mineral that normally approaches the surface at approximately the same elevation, generally a contour bench resulting.

2.13. Cross-drain shall mean a ditch constructed to carry away excessive drainage from a main collecting point or ditch.

2.14. Cut shall mean an excavation made by excavating equipment to remove overburden in a single progressive line.

2.15. Cut-fill shall mean overburden removed from an elevated portion of a road or bench and deposited in a depressed portion in order to maintain a desired grade.

2.16. Deep mining or underground mining shall mean removal of the mineral being mined without the disturbance of the surface as distinguished from surface mining.

2.17. Director and/or his authorized agent shall mean the Director of the Department of Natural Resources, the Chief of the Division of Reclamation, the Assistant Chief of the Division of Reclamation and all duly authorized supervisors, specialists and inspectors.

2.18. Diversion ditch shall mean a machine-made waterway used for collect-

ing ground water or a ditch designed to change the actual or normal course of ground and/or surface water.

2.19. Drainage plan or system shall mean the proposed method of collection, treatment, and discharge of all waters within the affected drainage area, as defined by the approved pre-plan.

2.20. Field indicator shall mean any approved apparatus or equipment used in the field to measure pH, iron, turbidity or such other parameters as may be required.

2.21. Fill bench shall mean that portion of a bench formed by spoil or overburden which has been deposited on or over the original slope.

2.22. Georgia Type V-Ditch shall mean a ditch for the collection and removal of ground and surface water, constructed on the solid bench area, with the opposing slopes being constructed in such a manner so as to permit the total area to be transversed by farm equipment.

2.23. Haulageway or access road shall mean any road constructed, improved, or maintained by the operator which ends at the pit or bench and which is located within the permit area. A bench may serve as a haulageway, but a haulageway cannot serve as a bench.

2.24. Highwall shall mean the vertical or near vertical wall consisting of the exposed strata after excavating operations.

2.25. Mineral shall mean a layer, vein, seam, bed or deposit; a stratigraphic part of the earth.

2.26. Mineral face shall mean the exposed vertical cross-section of the natural coal seam or deposit being mined and generally forming the base of the highwall left by excavating operations in surface mining.

2.27. Monument shall mean a permanent marker consisting of metal or wood used to identify the permit area being mined under a surface mining permit, consisting of a two-inch pipe driven three feet into the earth with a minimum of four feet exposed and a 2' X 3' sign affixed to the top of the pipe with company name and permit number permanently affixed. Any suitable equivalent substitute may be approved.

2.28. Natural drainway shall mean any water course or channel which carries water to the tributaries and rivers of the watershed. The United States Geological Survey classification of perennial or intermittent streams shall be considered as natural drainways.

2.29. Operation shall mean the permit area indicated on the approved map submitted by the operator.

2.30. Outer spoil or outer slope shall mean the disturbed area extending from the outer point of the bench to the extreme lower limit of the disturbed land.

2.31. Overburden shall mean the earth, rock and other materials lying in the natural state above a mineral deposit before or after excavation.

2.32. Pit shall mean that part of the surface mining operation from which the mineral is being actively removed.

2.33. Prospecting shall mean the use of excavating equipment in an area not covered by a surface mining permit for the purpose of removing the overburden to determine the location, quantity or quality of a natural coal deposit, or to make feasibility studies, or for any other purpose.

2.34. Reclamation shall mean the process of converting disturbed land to a stable form for productive use.

2.35. Regrade or grade shall mean to change the contour of any surface by the use of leveling or grading equipment.

2.36. Seepage water shall mean any water entering the ground from the surface through capillary action, cracks, faults or any other natural modes of entry, and finding its way to the surface again.

2.37. Slope shall mean the angle of repose from the horizontal plane of spoil banks or ridges of overburden material made in the surface mining operation; the angle of a hill or mountain. A gentle slope shall mean 0% to 10%; moderate to steep slope shall mean 10% to 45%; extremely steep slope shall mean 45% and over.

2.38. Soil shall mean any earthen material excluding bedrock.

2.39. Solid bench shall mean that portion of the bench surface formed by earth or rock strata which has not been removed, as distinguished from fill bench.

2.40. Spoil shall mean all overburden material removed or displaced by excavating equipment, blasting or any other means.

2.41. Stabilize shall mean to settle, or fix in place by mechanical or vegetative means, including the planting of trees, grasses, vines, shrubs, or legumes.

2.42. Stoniness shall mean a characteristic of earth, overburden or spoil reflecting its relative proportion of sizable aggregate content as opposed to its sand, loam, or fine aggregate content. Sites too stony to hand plant with seedlings shall be classified as extremely stony; those having less stone but too much stone for tillage shall be classified as stony; tillable sites shall be classified as non-stony.

2.43. Storm water shall mean any water flowing over or through the surface of the ground caused by precipitation; generally, surface run off.

2.44. Surface water shall mean that water, from whatever source, which is

flowing on the surface of the ground.

2.45. Suspension of permit shall mean an act of the director or the Reclamation Commission or an authorized agent of the director or Reclamation Commission with legal justification temporarily nullifying the validity of a permit insofar as the mining and removal of the mined minerals are concerned.

2.46. Water analyses shall mean those water analyses performed by or for the operator using the analytical procedures set forth in Standard Methods, Thirteenth Edition, or employing such other field testing methods which have been approved by the Division of Water Resources.

SECTION 3. CONVERSION

3.01. Conversion - Any operator holding a valid surface mining permit issued prior to the effective date of these regulations, shall within 60 days after the effective date thereof, convert such permit and the bond or other securities posted therefor to comply with all of the provisions of Article 6, Chapter 20, Code of West Virginia, as amended, and all rules and regulations promulgated thereunder, if mining operations are to continue after said date. The provisions of this regulation shall not be construed to require the re-grading or replanting of any area where such work was satisfactorily performed and approved prior to the effective date of these regulations.

SECTION 4. PROSPECTING

4.01. Bond Coverage - The amount of bond or its equivalent as provided in Section 7, Article 6, Chapter 20, Code of West Virginia, as amended, shall be five hundred dollars ($500) per acre or any fraction thereof.

4.02. Notification of Approval or Disapproval - After review of the prospecting permit application and the reclamation plan for the area to be dis-

turbed by prospecting, the director shall inform the applicant if they are approved or disapproved. If the application and plan are not acceptable, he shall set forth the reasons why they are not acceptable, and he may propose modifications, delete areas, or reject the permit on the basis of the reclamation plan or for other justifiable reasons set forth in the Code of West Virginia, as amended, and/or rules and regulations.

4.03. Reclamation Tax - No special reclamation tax, as outlined in Section 17 of Article 6, Chapter 20, Code of West Virginia, as amended, is required for a prospecting permit. However, if said permit is to be converted to a surface mining permit, the acreage disturbed by prospecting shall be included as a part of the total area to be assessed the special reclamation tax, as set forth in Section 17, Article 6, Chapter 20 of the Code of West Virginia, as amended.

4.04. Validity of Permit - A prospecting permit shall be valid for one year from its date of issue.

4.05. Governing Regulations - Prospecting and reclamation procedures shall be governed by the following regulations of the Reclamation Commission:

a. Sec. 5 - Haulageways;

b. Sec. 6 - Blasting;

c. Sec. 7 - Drainage;

d. Sec. 8 - Method of Operation

e. Sec. 9 - Revegetation and Standards for Evaluating Vegetative Cover.

4.06. Removal of Minerals - Minerals may be removed during prospecting operations for testing purposes only, and shall be limited to a maximum of two hundred fifty (250) tons for each permit area. Request for permission to remove greater amounts than two hundred fifty (250) tons of minerals shall be sub-

mitted to the director and may be approved at his discretion.

4.07. Bond Release - The bonds accompanying a prospecting permit shall be released in the same manner as surface mining permit bonds.

SECTION 5. HAULAGEWAYS.

5.01. Location - The location of the proposed haulageway shall be identified on the site by visible markings at the time the reclamation and mining plan is pre-inspected and prior to commencement of construction.

5.02. Grading - The grading of a haulageway shall be such that:

a. No sustained grade shall exceed 10%;

b. The maximum pitch grade shall not exceed 15% for 300 feet;

c. There shall not be more than 300 feet of maximum pitch grade for each 1,000 feet of road constructed;

d. The surface shall be insloped toward the ditch line at the minimum rate of 1/2 inch per foot of surface width or crowned at the minimum rate of 1/2 inch per foot of surface width as measured from the center line of the haulageway.

5.03. Curves - The grade on switchback curves shall be reduced to less than the approach grade and should not be greater than ten per cent (10%).

5.04. Cut Slopes - Cut slopes should not be more than 1:1 in soils or 1/4:1 in rock.

5.05. Ditches - A ditch shall be provided on both sides of a through-cut and on the inside shoulder of a cut-fill section, with ditch relief cross-drains being spaced according to grade. Water shall be intercepted before reaching a switchback or large fill and led off. Water on a fill or switchback shall be released below the fill, not over it.

5.06. Culverts - Ditch relief culverts shall be installed according to the following provisions:

a.

Road Grade in Per Cent	Spacing of Culverts in Feet
2 - 5	300 - 800
6 - 10	200 - 300
11 - 15	100 - 200

b. The culvert shall cross the haulageway at a 30 degree angle downgrade;

c. The inlet end shall be protected by a headwall of suitable material and the outlet end shall be placed below the toe of the fill with an apron of suitable material provided for the outflow to spill on;

d. The culvert shall be covered by compacted fill to a depth of one foot or half the culvert diameter, whichever is greater.

5.07. Culvert Openings - Culvert openings installed on haulageways should not be less than one hundred (100) square inches in area, but, in any event, all culvert openings shall be adequate to carry storm run off and shall receive necessary maintenance to function properly at all times.

5.08. Natural Drainway - Minor alterations and relocations of natural drainways as shown on the reclamation plan will be permitted if the natural drainway will not be blocked and if no damage is done to the natural drainway or to adjoining landowners.

5.09. Stream Crossings - Drainage structures shall be required in order to cross a stream channel. They shall be such so as not to affect the flow of the stream. Consideration will be given to the time of year the stream is crossed and the length of time the stream channel is used, but in no event, and under no condition will the flow of the stream be affected or the sediment load of the

stream increased during construction and/or use.

5.10. Removal of Drainage Structures - No bridges, culverts, stream crossings, etc., necessary to provide access to the operation, may be removed until reclamation is completed and approved by the director. The same precautions as to water quality are to be taken during removal of drainage structures as those taken during construction and use.

5.11. Seeding of Slopes - All fill and cut slopes shall be seeded and mulched during the first planting and/or seeding season after the construction of a haulageway in accordance with Section 9 of these regulations.

5.12. Haulageway Surfacing - Haulageways shall not be surfaced with coal refuse or any acid-producing or toxic material or with any material which will produce a concentration of suspended solids in surface drainage.

5.13. Tolerance - All grades referred to in this section shall be subject to a tolerance of two per cent (2%) grade. All linear measurements referred to in this section shall be subject to a tolerance of ten per cent (10%) of measurement. All angles referred to in this section shall be measured from the horizontal and shall be subject to a tolerance of five per cent (5%).

5.14. Water Bars - Water bars of the ditch and earth berm or log type shall be installed according to the following table of spacings in terms of per cent of haulageway grade prior to the abandonment of a haulageway:

Per Cent of Haulageway	Spacing of Water Bars in Feet
2	250
5	135
10	80
15	60
20	45
Above 20	25

5.15. Dust Control - Reasonable means shall be employed to prevent loss of haulageway surface material in the form of dust.

5.16. Abandonment of Haulageway - Upon abandonment of a haulageway, the haulageway shall be seeded and every effort made to prevent erosion by means of culverts, water bars or other devices. All haulageways shall be abandoned in accordance with all provisions of Section 10 & 14, Article 6, Chapter 20, Code of West Virginia, as amended, and Section 9 of these regulations.

SECTION 6. BLASTING.

6.01. Assessment - Any assessment as set forth in Section 11a, Article 6, Chapter 20 of the Code of West Virginia, as amended, shall be paid within 10 days after receipt of said assessment notice.

6.02. Sign - A sign permanently affixed at or near the permanent monument shall describe "warning, blasting area." The sign shall be a minimum of 2' X 3' with legible letters to be erected at the time mining operations begin.

6.03. Written Notification - Prior to mining operations, written notification of blasting shall be given by certified mail to all landowners within one thousand (1,000) feet of any part of the proposed operation. The United States Post Office Department certified receipt of notification shall be maintained with the blasting log.

6.04. Blasting Time - Blasting shall be limited to the hours between sunrise and sunset. Blasting on Sunday is strictly prohibited.

6.05. Approaches to Area - All approaches to the blast area shall be guarded against unauthorized entry prior to and immediately after blast.

6.06. Blasting Warning - When blasting is to be done within five hundred (500) feet of any occupied dwelling, the operator or his authorized representative shall notify all persons involved that a blast is to be detonated, stating

the approximate time of same. A minimum of one hour notification must be given prior to detonation.

6.07. Blasting Prohibited - The director or his authorized agent may prohibit blasting in specific areas where it is deemed necessary for the general safety of the area.

SECTION 7. DRAINAGE SYSTEM.

7.01. Drainage Plan - There shall be submitted with the application for surface mining a drainage plan which will show the proposed method of drainage on and away from the area of land to be disturbed. Said plan shall indicate the directional flow of water, constructed drainways, natural waterways used for drainage, streams or tributaries receiving or to receive this discharge, location of sediment dams and other silt retarding structures, location of all water test sites, treatment and all other data as may be required.

7.02. Natural Drainways - Natural drainways in the area of land disturbed by surface mining operations shall be kept free of overburden except where overburden placement has been approved. Such drainways shall be identified on the maps submitted with the application. Surface mining operations will be prohibited 50 feet on either side of a natural drainway. Overburden placement and haulageways across natural drainways will be constructed so as not to affect the flow of the stream, or materially increase the sediment load in the stream.

7A. Constructed Drainways

7A.01. Ditch Above Highwall - All surface water which drains into the pit shall be effectively intercepted on the uphill side of the highwall by suitable and adequate diversion ditches and conveyed by adequate channels or other suitable means of discharge to natural drainways outside the disturbed area. The director may, in the exercise of his sound discretion, when not in con-

flict with Article 6, Chapter 20, Code of West Virginia, as amended, waive this regulation.

7A.02. Ditch on Bench - Drainage ditches will be constructed on the excavated solid bench in order to carry off storm, surface or seepage water. The breaking point for ditches on the bench will fall at or near the midpoint between natural or constructed drainways. In no case shall water be discharged over a spoil slope. Removal of water from the bench shall be accomplished by use of adequate pipe, a rock riprap flume, asphalt or concrete chutes, or by grading a channel to nonerosive rock.

7A.03. Ditch Below Spoil Slope - All surface water draining off the spoil slopes will be intercepted by suitable and adequate diversion ditches which will carry the water to suitable treatment ponds before discharge into a natural drainway. These ditches will be located within twenty-five (25) feet of the anticipated toe of the spoil slope. If at any time spoil material interferes with the flow of water in these ditches, that material shall be cleaned out immediately. The director may, in the exercise of his sound discretion, when not in conflict with Article 6, Chapter 20, Code of West Virginia, as amended, waive this regulation.

7B. Sediment

7B.01. Sediment Control - Embankment type sediment dams or excavated sediment ponds will be constructed in appropriate locations in order to control sedimentation. All such impoundments shall have a minimum capacity to store .125 acre-ft./acre of disturbed area in the watershed. This disturbed area will include all land affected by previous operations that is not presently stabilized and all land that will be affected throughout the life of the permit. Design criteria and construction specifications for embankment type sediment

dams, excavated sediment ponds and other water retarding structures will be found in the "Drainage Handbook for Surface Mining."

7C. Water Quality

7C.01. Water Quality Control - All reasonable measures shall be taken to intercept all surface water by the use of diversions, culverts and drainage ditches or other methods to prevent water from entering the pit area. All water accumulation into the pit shall be removed as rapidly as possible with due recognition to water quality requirements. All water discharged from the permit area is to be monitored daily by the operator and a written record of the testing dates and analytical data shall be kept current and made available for inspection. A monthly compilation of the foregoing information will be submitted monthly to the Chief of the Reclamation Division. Any treatment works necessary to meet "adequate treatment" shall be approved by the Division of Water Resources. The water leaving the permit area will not lower the water quality of the river, stream or drainway into which it is discharged below the water quality standards established for such river, stream or drainway. In general, the following values or conditions are the minimum accepted standards for water leaving the permit area:

1. pH - 5.5 to 9.0;
2. Iron - 10 milligrams per liter or less;
3. Turbidity - not more than 1,000 Jackson Units (J.U.) of turbidity four hours following a major precipitation event and not more than 200 J.U. after 24 hours. (Major precipitation event - one-half inch of rainfall in 30 minutes.)

Water tests shall be taken before surface mining operations begin and the results of these tests will be shown on the "drainage plan" map. The location for these preliminary tests will be:

1. On natural drainways above proposed surface mining operations;
2. On natural drainways below proposed surface mining operation at or near the affected drainage area boundary;
3. On natural drainways upstream from the mouth of a natural drainway affected by surface mining.

7C.02. Treatment Facilities for Drainage from Surface Mine Operations - The Chief of the Division of Reclamation or his duly authorized agent shall conduct such investigation as it is deemed necessary and proper in order to determine whether or not any such permit should be granted or denied. In making such investigation and determination as to any such application, the Chief of the Division of Reclamation shall consult with the Chief of the Division of Water Resources. The Chief of the Division of Water Resources shall cooperate with and assist him in carrying out the duties imposed on him by the provision of Article 5A, Section 5 (3) and Article 6, Chapter 20, Code of West Virginia, as amended, and the rules and regulations of the Reclamation Commission and the Water Resources Board. Such cooperation shall include, but not be limited to, a written recommendation approving or disapproving the granting of the permit and the reason or reasons for such recommendation.

7D. Seeding

7D.01. Seeding of Drainage System - All area disturbed in the installation of the drainage system shall be seeded and mulched during the first planting and/or seeding season after construction in accordance with Section 9 of these regulations.

7E. Handbook

7E.01. Drainage Handbook for Surface Mining - Design criteria and construction specifications for embankment type sediment dams, excavated sediment ponds, stone check dams, log and pole structures, diversion ditches, outlets and other water control structures are to be found in the "Drainage Handbook for Surface Mining" published by the Department of Natural Resources.

SECTION 8. METHOD OF OPERATION

8.01. Operator Responsibility - In planning and executing surface mining operations, the operator shall have, at all times, proper regard for all backfilling and regrading requirements, imposed by Article 6, Chapter 20, Code of West Virginia, as amended, and all rules and regulations adopted pursuant thereto.

8.02. Topsoiling - In all acid producing materials and acid producing overburden, topsoiling or upper horizon removal shall be required. All materials removed shall be stockpiled and returned to the surface of the regraded area.

8A. Contour Surface Mining

8A.01. Fill Bench- No fill bench shall be produced on slopes of more than sixty-five per cent (65%), except for the construction of haulageways, and such haulageways shall not exceed thirty-five (35) feet in width. Where the original slope exceeds sixty-five per cent (65%) and a fill bench is produced for a haulageway, no mineral shall be removed by any method.

8A.02. Final Bench Slope - The bench portion of the restored area shall be sloped toward the reduced highwall. In all areas where augering or deep mining is evident, a Georgia Type V-Ditch shall be required.

8A.03. Georgia Type V-Ditch - In all areas where lands will be used in production of annual crops or more intensive use is made, a Georgia Type V-Ditch backfill shall be required. The distance of the ditch from the highwall should

be directly proportional to the original height of the highwall. The ditch shall be constructed on the solid bench. The outside spoil shall be graded in a finished unsettled slope of not more than ten per cent (10%) in the direction of the highwall.

8A.04. Drainage - Diversion ditches or terraces that will reduce the velocity and control the surface runoff on long uninterrupted slopes, shall be constructed in the final grading whenever required by the director.

8A.05. Treatment of Toxic Material - All acid-producing and/or toxic materials which are part of the operation, shall be localized and separated from the remaining overburden or spoil, and shall be placed back into the pit area before final regrading is begun.

8A.06. Covering the Pit - A minimum of four (4) feet of material suitable for vegetative growth shall be placed over the pit area and over any toxic or acid-producing material previously placed in the pit. In the event there is sufficient material available, additional material suitable for vegetative growth shall be placed over the pit area over and above the minimum four (4) feet required.

8A.07. Highwall Access Roads - All areas disturbed in the construction of highwall access roads shall be seeded during the first planting and/or seeding season after construction in accordance with Section 9 of these regulations. Standards for haulageway abandonment shall apply in accordance with 5.16 of these regulations.

8A.08. Grading Outer Spoil - All outer spoil, where the original slope is thirty per cent (30%) or less, shall be graded so as to blend into the adjoining undisturbed lands.

8A.09. Bench Surface - The surface of the regraded bench shall be graded

so as to permit the use of farm implements and machinery.

8A.10. Multiple Seam Mining - Multiple seam mining shall mean all seams of mineral requested to be surface mined on any one given application, provided that the maximum separation between the elevation of the lower seam requested and the uppermost seam requested does not exceed one hundred fifty (150) vertical feet in vertical rise.

a. Overburden from the seam being mined shall not extend beyond one-half of the solid bench on the seam below.

b. The lower seam shall be mined in advance of the seam above.

c. Regrading shall be completed according to the rules and regulations on each seam prior to mining any other seam indicated in the application.

8B. Area Surface Mining

8B.01. Drainage - Diversion ditches or terraces that will reduce the velocity and control the surface runoff on long uninterrupted slopes, shall be constructed in the final grading whenever required by the director.

8B.02. Treatment of Toxic Material - All acid-producing and/or toxic materials which are part of the operation being mined shall be localized and separated from the remaining overburden or spoil, and shall be placed back into the pit area before final regrading is begun.

8B.03. Final Surface Deviations - Final surface of the regraded area may deviate from the original contour of the land if such deviation is proposed in the original reclamation plan and approved by the director.

8B.04. Debris and Rocks - The final surface of the regraded area shall be graded so as to permit the use of farm implements and machinery.

8C. Requirements for Special Land Use Purposes

8C.01. Alternative Plans - Alternative plans for restoration of the disturbed area may be submitted to the director. If such restoration will be consistent with the purpose of Article 6, Chapter 20, Code of West Virginia, as amended, and if such plans are approved by the director and complied with within such time limits as may be determined by him as being reasonable for carrying out such plans, the backfilling and grading requirements heretofore contained may be modified.

8C.02. Water Impoundments - Prior to the construction of an impounding area for the storage of water, approval must be obtained from the Division of Reclamation for such impoundment. The Division of Water Resources will cooperate with the Division of Reclamation in reviewing all portions of any plan for water impoundments as they relate to water quality and will give its recommendations therefore to the Division of Reclamation. The plan will include but not be limited to the following:

a. Location of the impounding area;

b. Dimensions of the area as to capacity and depth (average, maximum and minimum);

c. Plot plan of impoundment area;

d. Source of water entering the impoundment;

e. Quality of the water entering the impoundment;

f. Quantity of water leaving the impoundment and mechanism of discharge; e.g. overflow, seepage (through walls, into bottom, etc.), evaporation, etc.;

g. Coal seam or seams mined or involved with impoundment;

h. Chemical characteristics of the soils and underlying strata in the impoundment area as they relate to acid production;

i. Safety aspects considered such as spillway overflow, emergency spillway, access to area, and approval by Public Service Commission; and

j. Consent of the landowner for such impoundment with submission on specified forms.

8C.03. Sanitary Landfills - Plans for sanitary landfills or solid waste disposal areas shall be accompanied by the written approval of the Division of Water Resources and the State Department of Health.

8D. Keeping Operation Current

8D.01. Contour Surface Mining - Grading, backfilling and water management practices as approved in the plans shall be kept current as follows:

a. Should the operation include only stripping (no augering or highwall mining), the grading and backfilling shall follow the mineral removal by a period not to exceed sixty (60) days or 3,000 linear feet.

b. Should the operation include stripping and augering, the augering shall follow the stripping by a period not to exceed sixty (60) days, and the grading and backfilling shall follow the augering by not more than thirty (30) days or 1,000 linear feet.

c. Should the operation include stripping and highwall mining, the highwall mining shall follow the stripping within sixty (60) days, or a reasonable time as prescribed by the director. Grading and backfilling shall follow the highwall mining by not more than thirty (30) days or 1,000 linear feet.

d. Should the operation include only augering or highwall mining, the grading and backfilling shall follow the augering or highwall mining

by a period not to exceed thirty (30) days or 1,000 linear feet.

8D.02. Area Surface Mining - The grading and backfilling shall not be more than two spoil ridges behind the pit being worked, the spoil from this pit being considered the first ridge. All backfilling and grading shall be completed within ninety (90) days after completion of an operation or a prolonged suspension of work in the area. Maximum linear feet of open pit shall not exceed 3,000 feet.

8D.03. Weather Conditions - Should weather conditions make grading impractical, the period of time required to be current may be reasonably extended.

8E. Treatment of Acid Water Breakthrough

8E.01. Water Analysis - Any breakthrough of water caused by the operator during the course of his operations shall be sampled immediately and analyzed for pH, total acidity and total iron content. Such analysis shall be made by a competent water analyst or chemist. The original and at least one copy of such analysis shall be retained by the operator, one copy submitted to the director and one copy to the Chief of the Division of Water Resources.

8E.02. Construction of Seals - Should said analysis indicate the water to be acid with a pH of less than 5.5, or is acid and/or contains more than 10mg/l of iron, seals shall be immediately constructed. These seals shall either:

a. Prevent any air from entering the mine by way of the breakthrough; or

b. Prevent any air from entering the breakthrough while allowing the water to flow from the breakthrough; or

c. Seal the breakthrough of acid water so that it cannot flow.

Such seals shall be constructed of stone, brick, block, earth or similar impervious materials which are acid resistant. Any cement or concrete employed in the construction of these seals shall also be of an acid resistant, impervious type.

8E.03. Acid Water - Alternate methods of sealing and/or treating acid water may be employed as they are developed and approved.

SECTION 9. REVEGETATION

9A. Scope

9A.01. Objective in Revegetation - The objective in revegetation is to stabilize the area as quickly as possible after it has been disturbed in order to achieve permanent and protective vegetative cover. Plants that will give a quick, permanent, protective cover and enrich the soil shall be given priority. All plants shall be considered both as a tool in obtaining stabilization and as an end result, in terms of forest products, wildlife habitat and agricultural benefits.

9B. Seeding and Planting

9B.01. Seasonal Feasibility - Appropriate vegetation shall be planted, seeded, aerial-seeded, or hydro-seeded in accordance with accepted agricultural and reforestation practices when the season is favorable for seed germination and plant survival.

9B.02. Spoil Characteristics - Surface mining of minerals and removal of overburden results in spoil which varies greatly in acidity and stoniness. These two characteristics, together with steepness of slope, shall be used in determining classification for the purpose of establishing vegetation.

9B.03. Soil Acidity Tests - Tests for soil acidity, expressed as pH, shall be made after final grading and before seeding or planting. As a guide, until experience is achieved, a minimum of five (5) random samples shall be taken per acre. Soil tests may be made with accepted field indicators. Tests made by a soils laboratory are acceptable and may be preferred on some sites.

9B.04. Acidity Relating to Species - Revegetation methods and species selection shall be based on the following guidelines:

a. Agricultural use should only be attempted on spoil with a pH of 5.5 or above;

b. Legumes and perennial grasses may be seeded on areas where forage crops are planned and on steep and stony spoil as a temporary measure until woody plants can provide adequate soil protection;

c. Trees or shrubs planted in spoil down to pH 4.0 will make acceptable growth; however, between pH 3.5 and 4.0 only selected acid-tolerant trees or shrubs will survive;

d. No vegetation can be expected to survive below pH 3.5 without intensive soil preparation treatment.

9B.05. Planting of Seedlings - Seedlings should be planted on all spoil slopes that are reasonably accessible, as the expectation of survival is relatively higher than for direct seeding. As new methods of planting or seeding are developed, the director may approve the application of such methods if they are in conformity with the provisions of Article 6, Chapter 20, Code of West Virginia, as amended.

9B.06. Development of Planting Plan - A final planting plan shall be prepared and submitted to the director for his approval within sixty (60) days after the grading and backfilling of the operation have been approved. This plan shall be based on the foregoing conditions, using Table One of these regulations to determine the capability class or classes. Some flexibility is intended based on the planner's judgment of the observable features, but the classification shall be made and recorded, based on the physical and chemical features of the spoil. Table One is a modification of the Land Use Capability Classification of the

U. S. Department of Agriculture, using Land Classes VI, VII, VIII.

9C. Plant Material Selection and Treatment

9C.01. Specifications - All planting plans for woody vegetation will include provisions for herbaceous cover using a suitable mixture from Table Two. The following specifications should govern the selection and establishment of seeds and plants used in the revegetation of surface mine spoil and based upon the capability classes computed from Table One for such spoil:

a. Class VI s 8 - on favorable spoil material, prepared for perennial cover crop use, including Group I spoil, non-stony and with pH 5.5 or higher, one of the following mixtures should be used:

(1) Seed mixtures #1, 2 or 3, from Table Two of these regulations, should be applied where annual maintenance treatment is assured. Mixture #4 should be applied where the graded portion of spoil is to be used as a firebreak or occasionally as a haulageway.

(2) Establishment of grass, legume or perennial grass cover crop should require the following treatment:

(i) Innoculation of legume seed with proper strain;

(ii) Triple innoculation rate if hydro-seeded;

(iii) Protection of seeded spoil area from grazing by livestock;

(iv) Application of lime to pH 6.0 for mixture #4, to pH 6.5 to 7.0 for all other mixtures;

(v) Application of fertilizer to be a minimum of 150 pounds of ammonium nitrate and 100 pounds of triple super phosphate per acre. Any equivalent substitute may be acceptable;

(vi) Preparation of seed bed by harrowing, discing or other approved methods;

(vii) Completion of fall seeding for legumes and forages should be completed by September first.

(3) Maintenance of cover crop should be carried out by the operator or his assignee through two growing seasons, or until the cover crop is adjudged by the director to be satisfactorily established and may require the following treatment:

(i) Maintain pH 6.5 - 7.0 for Mixture 1;

(ii) Maintain pH 6.0 - 6.5 for Mixture 2, 3, 4 and 6;

(iii) Maintain pH 5.5 - 6.0 for Mixture 4;

(iv) Topdress every two years with 400 lbs. per acre 0-20-20 for Mixture 5.

b. Class VI s 8 - on favorable spoil material prepared for woodland and wildlife use, any one mixture from Table Three of this regulation, along with proportions and treatment prescribed for it, should be selected for use in the direct seeding of herbaceous species and planting of trees and seedlings.

(1) Establishment of plant growth for woodland cover should require:

(i) Spring planting of seedlings not later than May 1st and preferably before April 15th.

(ii) Spacing of shrubs and all trees in a pattern eight feet by eight feet apart or 680 trees per acre.

(2) Establishment of crown vetch-rye grass or Serecia-tall Fescue mixtures for wildlife cover may be done in accordance with Class VI s 8 under 9c.01.a. (2) of this regulation.

c. Class VII s 3 - on moderately favorable spoil material, prepared for

woodland and wildlife use, Group I, with pH 5.5 and above, graded but stony, on moderate to steep slopes, non-stony and stony, one of the mixtures with specified proportion and treatment from Table Four of this regulation should be used.

(1) Overseeding on moderate to steep slopes on tree planting sites shall be carried out on spoil in Group 1 and Group 2, Class VII s 3, in order to prevent siltation, establish ground cover and minimize erosion. Seed one of the seed mixtures from Table Two.

(2) Establishment of plant growth shall require innoculation of legume seed with proper strain, and shall be protected from grazing by livestock. Triple innoculation rate if hydro-seeding.

d. Class VIII s 3 - on favorable spoil material prepared for woodland and wildlife use, which includes all extremely steep and/or stony spoil in Groups 1 and 2, and all of Group 3, one of the mixtures with specified proportions and treatment from Table Four of this regulation should be used.

(1) Establishment of plant growth should require:

(i) Broadcasting Mixture 1 and 3 before May 1st and frost seeding Mixture 2 by early March.

(ii) Black Locust seed must be seventy per cent (70%) or more viable. All legumes must be innoculated and must be protected from grazing by livestock. Triple innoculation rate if hydro-seeding.

(iii) Mixture No. 1 of Table Four should be used for extremely stony areas when tested acidity indicates a pH of 4.0 or better.

e. Other species of trees, shrubs, grasses, legumes or vines may be approved by the director.

9D. Mulch

9D.01. Mulch Specifications - Mulch shall be used on all seeding mixtures on all disturbed areas where the remaining slope exceeds twenty degrees (20°) or thirty-six per cent (36%) from the horizontal shown on the approved pre-plan map. Minimum rates to be applied are as follows:

Material	Rate/Acre
Straw or Hay	1 - 2 Tons - Material may be anchored with asphalt emulsion or other methods approved by the director.
Wood Cellulose Fiber	700 - 1,000 lbs.

Any suitable material including latex or plastic compounds may be approved by the director.

9E. Standards for Evaluating Vegetative Cover

9E.01. Planting Report - A planting report shall be prepared and filed with the director on the prescribed form when the planting of a permit area is completed. All planting reports shall be certified by the operator or by the party with which the operator contracted for planting.

9E.02. Time for Inspection - Inspection and evaluation of vegetative cover shall be made as soon as it is possible to determine if a satisfactory stand has been established. In no instance shall the official vegetative cover check be carried out until the planting concerned has survived two growing seasons.

9E.03. Function of Annual Grasses - On areas where excessive erosion is likely to occur, rapid establishment of vegetative cover is highly recommended. Seeding of annuals on such areas shall be considered as a means for achieving

temporary vegetative cover only and not acceptable in the achievement of permanent cover.

9E.04. Standards for Perennials - Standards for legumes and perennial grasses shall require at least an eighty per cent (80%) ground cover. Bare areas shall not exceed one-fourth (1/4) acre (100' X 100') in size nor total more than twenty per cent (20%) of the area seeded.

9E.05. Standards for Woody Plants - Standards for woody plants shall require the survival of a minimum of six hundred (600) trees (including volunteer tree species) and/or planted shrubs per acre. Distribution of stems shall be generally uniform, with no areas larger than one-fourth (1/4) acre with substandard stocking, that is, with spacing averaging more than seventy (70) square feet per stem. Exception may be made for occasional patches of substandard stocking greater in size than one-fourth (1/4) acre.

9E.06. Standards for Woody Plants with Perennials - Standards for woody plants with legumes and perennial grasses overseeded shall require a sixty per cent (60%) establishment of ground cover of legumes and perennial grasses, and a sixty per cent (60%) survival of woody plants comprising a satisfactory vegetative cover as determined by the director. Bare areas shall not exceed one-fourth (1/4) acre (100'X 100') in size nor total more than twenty per cent (20%) of the area seeded or planted.

9E.07. Revegetation Evaluation Report - A revegetation evaluative report shall be prepared and filed during the second complete growing season. Following inspection to confirm that the above evaluative standards have been complied with, the director may cause the remainder of bonds to be released.

SECTION 9

TABLE ONE

STRIP MINE SPOIL CLASSIFICATION

TYPE OF SPOIL	GENTLY SLOPING	MODERATE TO STEEP SLOPE	EXTREMELY STEEP SLOPE
Group 1 - pH 5.5 and above			
Non-stony	VI s 8	VII s 3	VIII s 3
Stony	VII s 3	VII s 3	VIII s 3
Extremely stony	VIII s 3	VIII s 3	VIII s 3
Group 2 - pH 4.0 - 5.5			
Non-stony	VII s 3	VII s 3	VIII s 3
Stony	VII s 3	VII s 3	VIII s 3
Extremely stony	VIII s 3	VIII s 3	VIII s 3
Group 3 - pH below 4.0	VIII s 3	VIII s 3	VIII s 3

SECTION 9

TABLE TWO

* APPROVED SEED MIXTURES FOR OVERSEEDING WITH WOODY VEGETATION
(Tree and Shrub Seedlings)

1.	Tall Fescue	30 lbs.
	Sericea	15 lbs.
2.	Tall Fescue	20 lbs.
	Rye Grass	10 lbs.
	Sericea	15 lbs.
3.	Tall Fescue	20 lbs.
	Weeping Lovegrass	3 lbs.
	Sericea	15 lbs.

FOR ELEVATIONS ABOVE 2500'

4.	Tall Fescue	20 lbs.
	Red Top	4 lbs.
5.	Crown Vetch	15 lbs.
	Tall Fescue	20 lbs.
	Weeping Lovegrass	3 lbs.
6.	Crown Vetch	15 lbs.
	Perennial Ryegrass	20 lbs.
	Weeping Lovegrass	3 lbs.
7.	Tall Fescue	20 lbs.
	Weeping Lovegrass	3 lbs.
8.	Tall Fescue	20 lbs.
	Sweet Clover	10 lbs.

USE: HAY, PASTURE OR OTHER WHERE HERBACEOUS COVER IS DESIRED

1.	Alfalfa	20 lbs.
	Orchardgrass	10 lbs.
2.	Birdsfoot Trefoil	10 lbs.
	Tall Fescue	15 lbs.
3.	Birdsfoot Trefoil	10 lbs.
	Orchardgrass	10 lbs.
4.	Sericea (Hulled)	20 lbs.
	Red Top	3 lbs.
	Tall Fescue	15 lbs.
5.	Crown Vetch	15 lbs.
	Tall Fescue	20 lbs.

* Establishment of vegetation includes liming to pH range 6.5 - 7.0, fertilization 500 lbs. 10-20-10 or equivalent, and protection from grazing during the seedling stage.

SECTION 9

TABLE THREE

APPROVED WOODLAND PLANT MIXTURES
(Nursery Grown Seedlings)

1.	Black Locust (3000') White Pine	Plant in bands 6 rows or more in width. Black Locust not to exceed 50%.
2.	Black Locust (3000') Virginia Pine	Plant in bands 6 rows or more wide. Black Locust not to exceed more than 50%.
3.	Scotch Pine White Pine Red Pine (above 2000') Virginia Pine (below 2500')	Use mixture of two or more if available. Plant in bands 6 rows or more.
4.	Black Locust (below 3000') Tulip Poplar (below 3000') Sycamore (below 2500') Red Oak	Use up to one-half locust with one or more of hardwood species. Plant in bands 6 or more rows in each species.
5.	Autumn Olive and adapted pines or hardwoods	Where owner's interest is wildlife improvement, plant in bands of 3 to 6 rows preferably with pines or in blocks of one-fourth acre spaced 600' apart.
6.	European Black Alder (below 2500') Sycamore Indigo Bush Autumn Olive	Use these plants where protection from grazing is impractical or protection will not be maintained. For wildlife habitat improvement use 3 to 6 row bands where two or more species are planted.
7.	European Black Alder	Use European Black Alder where pH is near 4.0
8.	Black Locust	Use only on steep erodible outslopes.
9.	Sweet Crab Apple 1/ Washington Hawthorne 1/	On bench of areas where owners primary interest is wildlife habitat improvement, plant in clumps of 12 spaced 10' to 12' apart. Clumps should be spaced 200' to 300' apart, planted in between with pine, Indigo Bush or Autumn Olive.
10.	Blackberry 1/	Plant on bench spaced 6X6 in blocks 100 plants per block.
11.	Grey Dogwood 1/ Silky Cornell 1/	On bench near water impoundments spaced 8 X 8.

1/-Should be planted only on the more favorable sites. Preferably a north or northeastern aspect with a pH of 5.0 or above.

SECTION 9.

TABLE FOUR

*APPROVED MIXTURES
HERBACEOUS AND WOODY SPECIES FOR DIRECT SEEDING

1.	Tall Fescue	30 lbs.	
	Sericea	15 lbs.	
	Black Locust 1/	3 lbs.	
2.	Tall Fescue	20 lbs.	
	Ryegrass	10 lbs.	
	Sericea	15 lbs.	
	Black Locust 1/	3 lbs.	
3.	Tall Fescue	20 lbs.	
	Weeping Lovegrass	3 lbs.	
	Sericea	15 lbs.	
	Black Locust 1/	3 lbs.	
4.	Tall Fescue	30 lbs.	Better suited to higher elevations above
	Birdsfoot Trefoil	10 lbs.	2500'.
	Black Locust 1/	3 lbs.	
5.	Tall Fescue	20 lbs.	Better suited to higher elevations above
	Red Top	3 lbs.	2500'.
	Birdsfoot Trefoil	10 lbs.	
	Black Locust 1/	3 lbs.	

* Application of fertilizer shall be a minimum of 150 pounds of ammonium nitrate and 100 pounds of triple super phosphate per acre. Any equivalent substitute may be acceptable.

1/ Black Locust seed may be omitted on the bench areas or where erosion is not a serious problem.

SECTION 10. BOND AND PERMIT REQUIREMENTS

10.01. Scale for Reclamation Plan Map - The scale required for all maps and plans prepared for submission with an application for a surface mining permit shall be as follows:

a. Scale on a U. S. geological survey topographic 15-minute quadrangle shall be enlarged to approximately 660 feet to the inch;

b. Scale on a U. S. geological survey topographic 7.5-minute quadrangle shall be enlarged to 500 feet or less to the inch;

c. Scale on aerial photograph shall be 660 feet or less to the inch;

d. Scale on the Progress, Alternative Plan and Final Maps shall be of the same scale of the approved Pre-plan Map.

10.02. Scale for Progress and Final Maps - The scale required for progress maps and final maps shall be not less than 400 feet to the inch nor more than 660 feet to the inch, 500 feet to the inch being preferred.

10.03. Scale Approval - Written permission from the director shall be required prior to the submission of maps drawn to any scale other than set forth by regulation.

10.04. Map Size - All maps and plans shall be submitted on standard print paper, 24 inches by 36 inches or less. If supplementary maps or plans are attached, match lines shall be used.

10.05. Color Code - A color code shall be used in preparing all maps to indicate critical features of the permit area as follows:

a. Red shall indicate mineral to be removed;

b. Yellow shall indicate the total disturbed land;

c. Blue shall indicate water and drainage;

d. Brown shall indicate special uses;

e. Green shall indicate regrading.

10.06. Approval of Person to Prepare a Complete Reclamation and Mining Plan - Any person preparing a complete reclamation and mining plan for the area of land to be disturbed as required by the provisions of Article 6, Chapter 20, Section 9, Code of West Virginia, as amended, or by the regulations, shall first submit to the director a written resume of his past experience and training. A written test may also be administered. On the basis of such resume and written test, he shall be adjudged qualified or not as the case may be, and so notified by the director in writing.

10.07. Approval of Private Contractor - In the event the operator contracts with a private contractor to carry out the planting, the private contractor shall first submit to the director a written resume of his past experience and training. On the basis of such resume, he shall be adjudged qualified or not as the case may be, and so notified by the director in writing.

10.08. Permit or End of Strip Marker - A two-inch (2") pipe shall be driven into the earth with a minimum of three feet (3') exposed to permanently mark the beginning and ending points of the area under permit. It shall be identified by painting the exposed portion of the pipe red. Any suitable substitute may be approved. The assigned permit number shall be permanently affixed to the permit marker or end of strip marker.

SECTION 11. OTHER MINING OPERATIONS ON SURFACE MINED AREAS

11.01. Director's Approval - Reclamation plans for other mining operations to be carried out on a surface mined area on which the regrading, backfilling or revegetation have not been completed, shall require prior approval by the director.

11.02. Application Requirements - Application for approval of such reclamation plans shall be accompanied by the following:

a. Application form to be prescribed by the director;

b. A map of the surface mining permit area, showing the portion of land to be disturbed by the other mining operations, including haulageways;

c. A performance bond or equivalent as provided in Section 16, Article 6, Chapter 20, Code of West Virginia, as amended, the requirement for the first acre or fraction thereof of disturbed lands being one thousand dollars ($1,000) and for each additional acre or fraction thereof of disturbed land an additional one thousand dollars ($1,000);

d. Written permission for other mining operations from the owner of the surface rights and/or the owner of the mineral rights or the controlling parts of the same.

11.03. Applicability of Code and Regulations - All requirements for backfilling, regrading, revegetation, and bond release procedures as set forth in Article 6, Chapter 20, Code of West Virginia, as amended, and in Sections 8 and 9 of the regulations of the Reclamation Commission shall apply with equal force to the reclamation of disturbed areas from other mining operations.

SECTION 12. QUARRIES

12.01. Surface Mining Other Than Coal - All requirements as set forth in Article 6, Chapter 20, Code of West Virginia, as amended, and all rules and regulations of the Reclamation Commission shall apply with equal force for the surface mining of clay, flagstone, gravel, manganese, shale, iron ore and any other metal or metallurgical ore.

12.02. Surface Mining of Limestone, Sandstone and Sand - All requirements as set forth in Article 6, Chapter 20, Code of West Virginia, as amended, excepting those covering bonding and reclamation and all rules and regulations of the Reclamation Commission with the exception noted, shall apply with equal force for the surface mining of limestone, sandstone and sand.

SECTION 13. MODIFICATIONS

Should the director determine that modifications are necessary because of geologic structure, topography, particular watershed or permit conditions, the director may at his discretion with the approval of the commission, make such modifications if the same are in conformity with Article 6, Chapter 20, Code of West Virginia, as amended.

SECTION 14. STATE AND FEDERAL COMPLIANCE

The issuance of a prospecting or surface mining permit pursuant to Article 6, Chapter 20, Code of West Virginia, as amended, and any rules and regulations promulgated thereunder authorizes the operations covered by said permit, but does not release the permit-holder from any other legal duties imposed by the laws of this State or these United States.