WEST VIRGINIA

SECRETARY OF STATE

KEN HECHLER

ADMINISTRATIVE LAW DIVISION

FORM #4

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF RULE MODIFICATION OF A PROPOSED RULE

AGENCY: Division of Environmental Protection, Office of Mining & Reclamation TITLE NUMBER: 38

CITE AUTHORITY: W. Va. Code §22-1-3 and 22-4-1

AMENDMENT TO AN EXISTING RULE: YES ____ NO X

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: 2B

TITLE OF RULE BEING PROPOSED: "Rules for Mining and Restoration for Minerals Other than Coal, Limestone, Sandstone, and Sand"

THE ABOVE PROPOSED LEGISLATIVE RULE, FOLLOWING REVIEW BY THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE IS HEREBY MODIFIED AS A RESULT OF REVIEW AND COMMENT BY THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE. THE ATTACHED MODIFICATIONS ARE FILED WITH THE SECRETARY OF STATE.

Carri J. Chambers

Authorized Signature

$11.00

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West Virginia Bureau of Environment

Cecil H Underwood
Governor

Michael C Castle
Commissioner

January 25, 2000

Ms. Judy Cooper
Director, Administrative Law
Division
Secretary of State's Office
Capitol Complex
Charleston, WV 25305

RE: 38CSR2B – "Rules for Mining and Restoration for Minerals Other Than Coal, Limestone, Sandstone, and Sand"

Dear Ms. Cooper:

This letter will serve as my approval to the file the above-referenced rule as a "Notice of Rule Modification" with your office and the Legislative Rule-Making Review Committee.

Your cooperation in this regard is very much appreciated. If you should have questions or require additional information, please contact Carrie Chambers in my office at 759-0515.

Sincerely yours,

Michael C. Castle
Commissioner

MCC:cc

Attachment

cc: Rocky Parsons
Carrie Chambers

TITLE 38
LEGISLATIVE RULES
BUREAU OF ENVIRONMENT
OFFICE OF MINING AND RECLAMATION

SERIES 2B
RULES FOR MINING AND RECLAMATION FOR MINERALS OTHER THAN COAL, LIMESTONE, SANDSTONE, AND SAND

§38-2B-1. General.

1.1. Scope. -- This Legislative rule establishes general and specific rules for surface mining and reclamation operations for minerals other than coal, limestone, sandstone and sand including requirements for definitions, permits, preplans, haulageways or access roads, blasting, drainage system, method of operation, grading, backfilling and revegetation, public notice, permit renewals and revisions, state and federal compliance and validity of rules and exceptions.

1.2. Authority. -- WV Code §§22-1-3 and 22-4-1.

1.3. Filing Date. --

1.4. Effective Date. --

§38-2B-2. Definitions.

Unless the context in which used clearly requires a different meaning, as used in this rule or as referred to in WV Code §22-4 as amended:

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

2.2. Acid-producing overburden or spoil means material that may cause spoil which upon chemical analysis, shows a pH of 5.5 or less.

2.3. Active surface mine operation means an operation where land is being disturbed or mineral is being removed or processed.

2.4. Approved person means any person approved by the director in accordance with subsection 9.6. of this rule.

2.5. Approximate Original Contour means that surface configuration achieved by the backfilling and grading of the disturbed areas so that the reclaimed area, including any terracing or access roads, resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated. Water impoundments may be permitted pursuant to West Virginia Code §22-4-9. Minor deviations may be permitted in order to minimize erosion and sedimentation, retain moisture to assist revegetation, or to direct surface runoff.

2.6. Area surface mining means open-cut or multiple-cut mining carried out on level to gently rolling topography.

2.7. Backfill means to place material back into an excavation and return the area to a predetermined slope.

2.8. Base of highwall means the intersection of the vertical plane with the horizontal plane at any point in the overburden, spoil or mineral.

2.9. Bench means the result of surface mining being:

2.9.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

2.9.b. A working base extending from the base of a highwall on which excavating equipment may operate.

2.10. Berm means a type of fill used for a specific purpose other than excess spoil disposal; such purposes may include, but not necessarily be limited to drainage control, screening for noise control, screening for aesthetic value, or safety barriers; provided however, that a berm of ten (10) vertical feet or more at any point shall be designed and the construction certified by an approved person and provided further that any berm consisting of greater than 20% fines or non-durable rock must be protected from wind and water erosion.

2.11. Completion of mining means an operation where no mineral has been removed or overburden removed for a period of three (3) consecutive months without an approved inactive status, 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. Cross-drain means a ditch constructed to carry away excessive drainage from a main collecting point or ditch.

2.13. Cut means an excavation made by excavating equipment to remove overburden or mineral in a single progressive line.

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

2.15. Deep mining or underground mining means removal of the mineral being mined without the disturbance of the surface as distinguished from surface mining.

2.16. Director and/or his authorized agent means the director of the Division of Environmental Protection, the chief of the Office of Mining and Reclamation, assistant chiefs of the Office of Mining and Reclamation and all duly authorized supervisors, inspector specialists, inspectors, and inspectors in training.

2.17. Diversion ditch means a machine-made waterway used for collecting ground water or a ditch designed to change the actual or normal course of ground and/or surface water.

2.18. Downslope means that area between the crop line or the proposed mineral seam and the valley floor.

2.19. Drainage plan or system means 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. Excess spoil means overburden or waste rock placed in a permanent or temporary location other than the pit.

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

2.22. Fill means a man-made deposit of earth, stone, spoil, or waste materials that is raised above the natural surface of the land and usually exhibits at least one sloping face.

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

2.24. Georgia Type V-Ditch means 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 traversed by farm equipment.

2.25. Haulageway or access road means 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.

2.26. Highwall means the vertical or near vertical wall consisting of the exposed strata after excavating operations.

2.27. Knowingly means that a person or operator knew or had reason to know in authorizing, ordering, or carrying out an act or omission that such act or omission constituted a violation, failure, or refusal.

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

2.29. Monument means 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 (2") pipe driven three feet (3') into the earth with a minimum of four feet (4) exposed and a two foot (2') X three foot (3') sign affixed to the top of the pipe with company name, address, phone number and permit number permanently affixed. Any suitable equivalent substitute may be approved.

2.30. Natural drainway means 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.

2.31. Operation means the permit area indicated on the approved map submitted by the operator.

2.32. Outer spoil or outer slope means the disturbed area extending from the outer point of the bench to the extreme lower limit of the disturbed land.

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

2.34. Pit means that part of the surface mining operation from which the mineral is being actively removed.

2.35. Processing means the crushing, sizing, screening, or washing of the mineral.

2.36. Protected structures means for purposes of blasting, dwellings, public buildings, schools, churches, or community or institutional buildings.

2.37. Pollution means any discharge in violation of the National Pollution Discharge Elimination System permit or permit standards or any other applicable water quality standards.

2.38. Reclamation means complete backfilling to the approximate original contour of the land. Including the elimination of highwalls and spoil peaks.

2.39. Regrade or grade means to change the contour of any surface by the use of leveling or grading equipment.

2.40. Restoration means the process of establishing a stable, usable condition to all disturbed areas of the permit.

2.41. Sand means individual rock or mineral fragments having a diameter less than 2.00 mm but greater than .02 mm.

2.42. Seepage water means 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.

2.43. Significant revision means a permit revision which constitutes a significant departure from the terms and condition of the existing permit which may result in a significant impact to the health, safety or welfare of the public; the hydrologic balance; the postmining landuse; or an individual's legal right to receive notice under this article.

2.44. Slope means 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 means zero percent (0%) to ten percent (10%); moderate to steep slope means ten percent (10%) to forty-five (45%); extremely steep slope means forty-five (45%) and over.

2.45. Soil means any earthen material excluding bedrock.

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

2.47. Spoil means material of any nature which overlays the mineral being mined which is removed or displaced by excavating equipment, blasting or any other means; or material of any kind which is separated from the mineral being mined as undesirable to the current product.

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

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

2.50. Structure means any man-made structures within or outside the permit areas which include, but is not limited to: dwellings, outbuildings, commercial buildings, public buildings, community buildings, institutional buildings, gas lines, water lines, towers, airports, underground mines, tunnels and dams. The term does not include structures owned by the operator and/or utilized for the purpose of carrying out the mining operation.

2.51. Surface water means that water, from whatever source, which is flowing on the surface of the ground.

2.52. Suspension of permit means an act of the director or an authorized agent of the director temporarily nullifying the validity of a permit insofar as the mining and removal of the mined minerals are concerned.

2.53. Technical Handbook means "The Technical Handbook of Standards and Specifications for Erosion and Sediment Control Excess Spoil Disposal Haulageways" for mining operations in West Virginia.

2.54. Waste material or waste rock means that part of the spoil which is separated from the current product as being excess or undesirable for the current product being produced.

2.55. Water analyses means those water analyses performed by or for the operator using the analytical procedures set forth in the most current edition of "Standard Methods for the Examination of Water and Wastewater".

§38-2B-3. Haulageways and Transportation Facilities

3.1. General. -- Each permittee shall design, construct, utilize, and maintain roads, railroad loops, spurs, sidings, surface conveyor systems, chutes, aerial tramways and other transportation facilities to meet the requirements of this administrative rule and to control or minimize erosion and siltation, air and water pollution, and to prevent damage to public or private property. To the extent possible using the best technology currently available, facilities shall not cause damage to fish, wildlife, and related environmental values and shall not cause additional contributions of suspended solids in excess of limitations of state or federal law to stream flow or to run-off outside the permit area.

3.2. Plans. Typical sections showing width of road cut, fill slopes, surface material of road, a center line profile with grades, sumps, culvert pipe location and size, and other transportation facilities shall be included in the permit application. The design of

haulageways shall be certified by a qualified registered professional engineer, licensed land surveyor, or approved person as being in accordance with specifications of this rule.

3.3. Location. The location of the proposed haulageway or other transportation facility shall be identified on the site by visible markings on one hundred foot (100') centers at the time the reclamation and mining plan is pre-inspected and prior to commencement of construction. Existing roads are exempt from this requirement.

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

3.4.a. No sustained grade shall exceed ten percent (10%);

3.4.b. The maximum grade shall not exceed fifteen percent (15%) for three hundred feet (300');

3.4.c. There shall not be more than three hundred feet (300') of maximum grade for each one thousand feet (1,000') of road constructed;

3.4.d. The surface shall be sloped toward the ditch line at the minimum rate of one-half inch (1/2") per foot of surface width or crowned at the minimum rate of one-half inch (1/2") per foot of surface width as measured from the center line of the haulageway; and

3.4.e. The grade on switchback curves shall be reduced to less than the approach grade and should not be greater than ten percent (10%).

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

3.6. 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.

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

3.7.a.

Road Grade in Percent	Spacing of Culverts in Feet
0 - 5	300 - 800
6 - 10	200 - 300
11 - 15	100 - 200

3.7.b. The culvert shall cross the haulageway at a thirty (30) degree angle downgrade at a minimum grade of 3%;

3.7.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; and

3.7.d. The culvert shall be covered by compacted fill to depth of one foot (1') or half the culvert diameter, whichever is greater.

3.8. Culvert Openings. -- Culvert openings installed on haulageways should not be less than one hundred square (100") inches in area, but, in any event, all culvert openings shall be adequate to carry storm run off the peak flow from a one (1)-year twenty-four hour precipitation event and shall receive necessary maintenance to function properly at all times.

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

3.10. Stream Crossings. -- Drainage structures, such as bridges, culverts, low-water crossings, or other structures designed, constructed and maintained using current prudent engineering practices, shall be required in order to cross an intermittent or perennial stream channel. They shall be such so as not to affect the flow of the stream. Consideration shall be given to the time of year the stream is crossed and 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. These structures shall be capable of passing the peak flow for a ten (10)-year twenty-four hour precipitation event from the contributing watershed.

3.11. Removal of Drainage Structures. -- No bridges, culverts, stream crossing, 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.

3.12. Stabilization of Slopes. -- All fill and cut slopes shall be stabilized after the construction of a haulageway.

3.13. Haulageway Surfacing. -- Access roads, haulroads, yards and parking areas shall be maintained with proper surface materials to prevent erosion. The material used to surface the haulageway shall be sufficiently durable for the anticipated volume of traffic, and the weight and speed of the vehicles using the road. Haulageways shall not be surfaced with any acid-producing or toxic material or with any material which will produce a concentration of suspended solids in surface drainage.

3.14. Tolerance. -- All grades referred to in this section shall be subject to a tolerance of two percent (2%) grade. All linear measurements referred to in this section

shall be subject to a tolerance of ten percent (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 percent (5%).

3.15. Mud and Debris on Public Roads. -- The deposition of mud and debris on public roads shall be minimized to the extent possible in order to prevent public nuisance.

3.16. 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 percent of haulageway grade prior to the abandonment of a haulageway. Percent of Haulageway Bars in Feet:

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

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

3.18. 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.

2.19. Infrequently Used Access Road. Any road that is:

3.19.a. Not used for transporting mineral or spoil; or

3.19.b. Not required for an approved post-mining land use is consi
dered an infrequently used access road and is exempt from subsection 3.4. of this rule.

3.20. Certification. Upon completion of construction or reconstruction, all primary roads for which design criteria were approved as part of the permit shall be certified. Such certification shall affirm that construction was completed in accordance with the approved criteria except as otherwise noted in the certification statement. Where the certification statement indicates a change from the design standards or construction requirements approved in the permit, such changes shall be documented in as-built plans. If as-built plans are submitted, the certification shall describe how and to what extent the construction deviates from the proposed design, and shall explain how and certify that the road will meet rule standards. The certification shall be on forms approved by the director and signed by a qualified registered professional engineer, licensed land surveyor or

approved person with experience in design and construction of roads. All roads used for transportation of mineral or spoil, and which are constructed outside the permitted mineral extraction area, shall be certified before they are used for such transportation.

§38-2B-4. Blasting.

4.1. Requirements. Each operator shall comply with all applicable state and federal laws in the use of explosives. The director is responsible for the training, examination, and certification of persons engaging in or directly responsible for blasting or use of explosives in surface mining operations. A blaster certified by the Division of Environmental Protection shall be responsible for all blasting operations including the transportation, storage and use of explosives within the permit area in accordance with the blasting plan.

4.2. Blasting Plan. Each application for a permit, where blasting is anticipated, shall include a blasting plan. The blasting plan shall explain how the applicant will comply with the blasting requirements of the Act, this rule, and the terms and conditions of the permit. This plan shall include, at a minimum, information setting forth the limitations the operator shall meet with regard to ground vibration and airblast, the basis for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations.

4.3. Written Notification. At least 10 days prior to mining operations, written notification of blasting shall be given by certified mail to all residents, owners or other persons who are within one-half (1/2) mile of any part of the blasting area. The United States Post Office Department certified receipt of notification shall be maintained with the blasting log. The notification shall contain at a minimum:

4.3.a. Name, address and telephone number of the operator;

4.3.b. Identification of the specific areas in which blasting will take place;

4.3.c. Dates and times when explosives are to be detonated;

4.3.d. Methods to be used to control access to the blasting area; and

4.3.e. Types and patterns of audible warning and all clear signals to be used before and after blasting.

4.4. Blast Record.

4.4.a. A blasting log book formatted in a manner prescribed by the director shall be kept current daily and made available at the permit site for inspection by the director, or upon written request, by the public.

4.4.b. The blasting log shall be retained by the operator for three (3) years.

4.4.c. The blasting log shall, at a minimum, contain the following information:

4.4.c.1. Name of permittee, operator or other person conducting the blast;

4.4.c.2. Location, date and time of blast;

4.4.c.3. Name, signature and certification number of blaster-in-charge;

4.4.c.4. Identification of nearest structure not owned or leased by the operator and direction and distance, in feet, to such structure;

4.4.c.5. Weather conditions;

4.4.c.6. Type of material blasted;

4.4.c.7. Number of holes, burden and spacing;

4.4.c.8. Diameter and depth of holes;

4.4.c.9. Types of explosives used;

4.4.c.10. Weight of explosives used per hole;

4.4.c.11. Total weight of explosives used;

4.4.c.12. Maximum weight of explosives detonated within any eight (8) millisecond period;

4.4.c.13. Method of firing and type of circuit;

4.4.c.14. Type and length of stemming;

4.4.c.15. If mats or other protections were used;

4.4.c.16. Type of delay detonator used and delay periods used;

4.4.c.17. Seismograph records and air blast records shall include but not be limited to:

4.4.c.17.A. Seismograph and air blast reading, including exact location, date, and time of reading and its distance from the blast;

4.4.c.17.B. Name of person and firm taking the readings;

4.4.c.17.C. Name of person and firm analyzing the record, where analysis is necessary; and

4.4.c.17.D. Type of instrument, sensitivity and calibration signal, and certification of annual calibration;

4.4.c.18. Shot location;

4.4.c.19. Sketch of delay pattern to include the entire blast pattern and all decks; and

4.4.c.20. Reasons and conditions for unscheduled blasts.

4.5. Blasting Procedures.

4.5.a. All blasting shall be conducted during daytime hours, between sunrise and sunset; provided, that the director may specify more restrictive time periods based on public requests or other consideration, including the proximity to residential areas. No blasting shall be conducted on Sunday. Provided, however, the director may grant approval of a request for Sunday blasting if the operator demonstrates to the satisfaction of the director that the blasting is necessary and there has been an opportunity for a public hearing. Blasting shall not be conducted at times different from those announced in the blasting schedule except in emergency situations where rain, lightning or other atmospheric conditions, or operator or public safety requires unscheduled detonations. Blasting shall be conducted in such a way so as to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in the course channel, or availability of surface or groundwater outside the permit area.

4.5.b. Safety Precautions.

4.5.b.1. Three (3) minutes prior to blasting, a warning signal audible to a range of one-half (½) mile from the blast site shall be given. This preblast warning shall consist of three (3) short warning signals of five (5) seconds duration with five (5) seconds between each signal. One (1) long warning signal of twenty (20) seconds duration shall be the "all clear" signal. Each person in the permit area, and each person who resides or regularly works within one-half (½) mile of the permit area shall be notified of the meaning of these signals;

4.5.b.2. All approaches to the blast area shall be guarded against unauthorized entry prior to and immediately after blasting;

4.5.b.3. All charged holes shall be guarded and posted against unauthorized entry; and

4.5.b.4. Flyrock, including blasted material, shall not be cast from the blasting site more than half way to the nearest protected structure and in no case beyond the bounds of the permit area.

4.5.c. Access to the blast area shall be controlled against the entrance of livestock or unauthorized personnel during blasting and for a period thereafter until an authorized person has reasonably determined:

4.5.c.1. That no unusual circumstances exist such as imminent slides or undetonated charges, etc.; and

4.5.c.2. That access to and travel in or through the area can be safely resumed.

4.5.d. At the request of the director, the operator shall monitor air blast levels using an instrument with an upper-end flat-frequency response of at least 200 Hz.

4.5.e. Blasting Signs. If blasting is necessary to conduct surface mining operations, the following signs and markers shall be required:

4.5.e.1. Warning signs shall be conspicuously displayed at all approaches to the blasting site, along haulageways and access roads to the mining operation and at all entrances to the permit area. The sign shall at a minimum be two feet by three feet (2' x 3') reading "WARNING! Blasting Area" and explaining the blasting warning and the all clear signals; and

4.5.e.2. Where blasting operations shall be conducted within one hundred (100) feet of the outside right-of-way of a public road, signs reading "Blasting Area", shall be conspicuously placed along the perimeter of the blasting area.

4.5.f. The director may require a seismograph recording of any or all blasts based on the physical conditions of the site in order to prevent injury to persons or damage to property. At no time can the maximum ground vibration or airblast exceed the limits established in WV Code §22-4-11(1), 11(2).

4.5.g. The maximum allowable ground vibration as provided in WV Code §22-4-11(1) shall be reduced by the director, if determined necessary to provide damage protection.

4.5.h. The maximum airblast and ground-vibration limits as provided in WV Code §22-4-11(1) and 11(2) shall not apply at the following locations:

4.5.h.1. At structures owned by the permittee and not leased to another person; and

4.5.h.2. At structures owned by the permittee and leased to another person, if a written waiver by the lessee is submitted to the director before blasting.

4.5.i. Regardless of whether the permittee chooses to use the scaled distance formula or to seismically monitor each blast, at no time, at any protected structure, may the peak particle velocity exceed the limits established for ground vibration or may the decibel level exceed that established in WV Code §22-4-11(1), 11(2).

4.5.j. No blasting within five hundred feet (500') of an underground mine not totally abandoned shall be permitted except with the concurrence of the Division of Environmental Protection, the operator of the underground mine and Mine Safety and Health Administration (MSHA). The director may prohibit blasting on specific areas where it is deemed necessary for the protection of public or private property or the general welfare and safety of the public.

4.6. Preblast Survey.

4.6.a. All permits issued after the effective date of this rule shall comply with the following requirements for preblast surveys.

4.6.b. At least thirty (30) days prior to beginning of blasting operations, the operator shall inform in writing all residents or owners of manmade dwellings or structures located within one-half (2) mile of the proposed blast area on how to request a preblast survey. Requirements for a preblast survey shall be the following:

4.6.b.1. Upon a written request to the director by a resident or owner of a manmade dwelling or structure that is located within one-half (2) mile of the blast area, the operator shall conduct a preblast survey of the dwelling or structure and submit a report of the survey to the director. If a structure is added to or renovated subsequent to a preblast survey, a survey of such additions and/or renovation shall be performed upon written request of the resident or owner and such survey must be performed within thirty (30) days of notification of the request;

4.6.b.2. The operator shall conduct the preblast survey in such a manner which shall determine the condition of the dwelling or structure, and to document any preblasting damage and to document other physical factors that could reasonably be affected by the blasting. Assessments of the preblasting condition of structures such as pipes, cables, transmission lines, wells and water systems shall be based on the exterior

or ground surface conditions and other readily available data. Special attention shall be given to the preblasting condition of wells and other water systems;

4.6.b.3. A written report of the survey shall be prepared and signed by the person or persons approved by the director who conducted the survey. Copies of the report shall be provided to the person requesting the survey and to the director;

4.6.b.4. Surveys requested more than ten (10) days before the planned initiation of blasting shall be completed before blasting operations begin; and

4.6.b.5. Any person who requests a survey who disagrees with the results of the survey may submit a detailed description of the specific areas of disagreement.

4.7. 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.

4.8. Certified Blasting Personnel. -- Each person responsible for blasting operations shall be certified. Each certified blaster shall have proof of certification either on their person or on file at the permit area during blasting operations. Certified blasters shall be familiar with the blasting plan and blasting related performance standards for the operation at which they are working.

4.9. Assessment. -- Any assessment as set forth in WV Code §22-4-11 shall be assessed by the Division of Environmental Protection (DEP) designated assessment officer and shall be paid within ten days (10) after receipt of said assessment notice.

§38-2B-5. Drainage System.

5.1. Drainage Plan. -- There shall be submitted with the application for surface mining a drainage plan which shall 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.

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

5.3. Constructed Drainways.

5.3.a. 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 conflict with WV Code §22-4, as amended, waive this rule.

5.3.b. Ditch on Bench. -- Drainage ditches shall 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 shall fall at or near the midpoint between natural or constructed drainways. In no case shall water be discharged over an unprotected 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.

5.3.c. Ditch Below Spoil Slope. -- All surface water draining off the spoil slopes shall be intercepted by suitable and adequate diversion ditches which shall carry the water to suitable treatment ponds before discharge into a natural drainway. These ditches shall be located within twenty-five feet (25') 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 WV Code §22-4, as amended, waive this rule.

5.4. Sediment.

5.4.a. Sediment Control. -- Embankment type sediment dams or excavated sediment ponds shall 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 shall 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 ponds and other water retarding structures shall be found in the Technical Handbook. All sediment control structures shall be cleaned out to original designed storage when the sediment accumulation reaches sixty percent (60%) of design capacity.

5.4.b. The director may consider approving half factor (0.0625 acre-ft./acre of disturbed area in the watershed) for sediment control structures where the applicant has demonstrated reasonable likelihood that sediment parameters shall be met.

5.5. Drainage Certification -- Prior to disturbance in a component drainage area, the operator shall complete and certify the drainage and sediment control system in accordance with the approved pre-plan. The certification shall be on forms approved by the director and signed by a qualified registered professional engineer, licensed land surveyor or an approved person. Any deviations from the approved pre-plan which result

from unforeseen site specific circumstances arising during construction, shall be reflected in as-built plans submitted by the operator and approved by the director immediately following construction. The as-built plans shall indicate the original design, the extent of the changes, and reference points. If as-built plans are submitted, the certification shall describe how and to what extent the construction deviates from the proposed design and shall explain how and certify that the drainage structure will meet rule standards.

5.6. Water Quality.

5.6.a. Water Quality Control. -- All reasonable measures shall be taken to intercept all undisturbed surface water by the use of diversion, 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 unless in-pit sediment control is being utilized. All water discharges from the permit area are to be monitored in accordance with the approved National Pollutant Discharge Elimination System (NPDES) permit by the operator and a written record of the testing dates and analytical data shall be kept current and made available for inspection. A compilation of the foregoing information shall be submitted to the chief of the Office of Mining and Reclamation by the 20th day of the month following the sample period. Any treatment works necessary to meet effluent limitations shall be approved by the director. Discharge from the permit area shall not in any case violate federal or state water quality standards or effluent limitations. The monitoring frequency shall be governed by the standards set forth in the National Pollutant Discharge Elimination System program under the federal Water Pollution Control Act as amended, 33 U.S.C. 1251 et. seq. and the rules and regulations promulgated thereunder. Water tests shall be taken before surface mining operations begin and the results of these tests shall be shown in the permit application. The location for these preliminary tests shall be:

5.6.a.1. On natural drainways above proposed surface mining operation;

5.6.a.2. On natural drainways below proposed surface mining operations at or near the affected drainage area boundary; and

5.6.a.3. On natural drainways upstream from the mouth of a natural drainway affected by surface mining.

5.6.b. Treatment Facilities for Drainage from Surface Mine Operations. -- The chief of the Office of Mining and 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 Office of Mining and Reclamation shall consult with the chief of the Office of Water Resources. 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.

5.7. Seeding of Drainage System. -- All areas disturbed in the installation of the drainage system shall be seeded and mulched after construction in accordance with section eight (8) of this rule.

5.8. Technical Handbook. -- Design criteria and construction specifications for embankment type sediment dams, excavated sediment ponds, stone check dams, log and pole structures, diversion ditches, berms, outlets and other water control structures are to be found in the Technical Handbook published by the Division of Environmental Protection.

5.9. Water Replacement Rights -- Upon written notice by the director, any operator shall replace the water supply of an owner of interest in real property who obtains all or part of the owner' supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply has been affected by contamination, diminution, or interruption proximately caused by such surface-mining operation, unless waived by said owner. The director's notice to replace the water supply shall be based upon the determination of a hydrologist of the office of mining and Reclamation, after inspecting the quarry and the affected property and performing the necessary studies and tests. Nothing in this rule affects the rights of any person to enforce or protect, under applicable law, interest in water resources affected by a surface-mining operation.

§38-2B-6. Method of Operation.

6.1. Operator Responsibility. -- In planning and executing surface mining operations, the operator shall have, at all times, proper regard for all requirements imposed by WV Code §22-4, as amended, all rules adopted pursuant thereto, and all provisions of the approved pre-plan and permit.

6.2. Topsoiling or Other Material Suitable for the Post Mining Land Use. -- These materials shall be removed in a separate layer and distributed over the backfilled or disturbed area, or if not utilized immediately, segregated and stockpiled in a separate location as specified in the pre-plan. Topsoil not immediately utilized shall be protected from wind and water erosion. Any material used for topsoiling must be capable of supporting and maintaining the approved post mining land use. This determination of capability shall be based on the results of appropriate chemical and physical analyses of overburden and topsoil. These analyses shall include at a minimum, depth, thickness, and areal extent of the substitute structure or soil horizon, pH, texture class, percent coarse fragments and nutrient content. A certification of analysis shall be made by a qualified laboratory stating that the substitute shall support and sustain vegetation for release of the permit.

6.3. Treatment of Toxic Material. -- Any acid-forming, toxic-forming, combustible materials, or any other waste materials that are exposed, shall be covered with a minimum of four (4) feet of nontoxic and noncombustible material; or test, treat and blend material to provide materials suitable to prevent water pollution. If necessary, this material shall be treated to neutralize toxicity in order to prevent water pollution and sustained combustion and/or to minimize adverse effects on plant growth and land uses. Where necessary to protect against upward migration of salts, exposure by erosion, to provide an adequate depth for plant growth, or to otherwise meet local conditions, the director shall specify thicker amounts of cover using non-toxic material. Acid-forming or toxic-forming material shall not be buried or stored in proximity to a drainage course so as to cause or pose a threat of water pollution.

6.4. Small Depressions. -- The requirement of this section to provide positive drainage does not prohibit construction of small depressions if they are approved by the director to minimize erosion, conserve soil moisture or promote revegetation. These depressions shall be compatible with the approved post-mining land use.

6.5. Bench Surface. -- The surface of the regraded bench shall be graded so as to permit the use of machinery such as farm epuipment. All available spoil material shall be used to backfill pit areas and provide positive drainage.

6.6. Final Graded Slopes. -- Final graded slopes shall be backfilled or graded to eliminate the highwall as much as is reasonably possible and shall not exceed the angle of repose or such lesser slope as is necessary to assure stability.

6.7. Grading Outer Spoil. -- All outer spoil shall be graded so as to blend into the adjoining undisturbed lands.

6.8. Regrading or Stabilizing Rills and Gullies. -- Any rills or gullies deeper than nine inches (9") inches forming in areas that have been regraded and the topsoil replaced but where vegetation has not yet been established shall be deemed unacceptable and any such rills or gullies shall be filled, graded, or otherwise stabilized and revegetated. Rills or gullies of lesser size shall also be stabilized if they will be disruptive to the approved postmining land use or may result in additional erosion and sedimentation.

6.9. Inactive Status. -- Inactive operation status shall be considered for a period not to exceed one (1) year from date of approval providing that prior written approval is obtained from the director. Inspection frequency for operations with approved inactive status shall not be less than once every six (6) months.

6.10. Keeping Operation Current. -- Grading, backfilling and water management practices as approved in the plans shall be kept current as follows:

6.10.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 three thousand (3,000) linear feet;

6.10.b. 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 one thousand (1,000) linear feet; and

6.10.c. Should the particular site conditions or weather make adherence to these guidelines impractical the period of time or the distance required to be current may be reasonably extended.

6.11. Mining and Reclamation Plan. -- The mining and reclamation plan for each operation shall be site specific and shall describe how the mining operations and reclamation operations are to be coordinated to minimize total land disturbance and to keep reclamation operations as contemporaneous as possible with the advance of mining operations.

6.12. Off-Site Protection. -- The operator must protect off-site areas from slides or damages occurring during mining operations and not deposit spoil material or locate any part of the operations or waste accumulations outside the permit area. *Provided,* that spoil material may be placed outside the permit area, if approved by the director after a finding that benefits to the environment or the health, safety or welfare of the public will result.

6.13. 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 WV Code §22-4, 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.

6.14. Water Impoundments. -- Prior to the construction of an impounding area for the storage of water after mining, approval must be obtained from the director for such impoundment. This plan shall include but not be limited to the following:

6.14.a. Location of the impounding area;

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

6.14.c. Plot plan of impoundment area;

6.14.d. Source of water entering the impoundment;

6.14.e. Quality of the water entering the impoundment;

6.14.f. Quality of water leaving the impoundment and mechanism of discharge;

6.14.g. Mineral or seams mined or involved with impoundment;

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

6.14.i. Safety aspects considered such as spillway overflow, emergency spillway, access to area; and

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

6.15. Sanitary Landfills. Where waste materials from a coal preparation or conversion facility or from other activities conducted outside the permit area such as municipal wastes, garbage, etc., are used for fill material, plans for such use shall be approved by the director. Such plans for sanitary landfills and/or solid waste disposal areas shall be accompanied by the written approval of the Office of Waste Management and where appropriate, the state Department of Health and Human Resources.

6.16. Steep Slope Mining. Steep slope mining on surface mining operations where the natural slope exceeds twenty degrees (20°), the provisions of this section in addition to other applicable provision of this rule, shall apply. On lesser slopes that require measures to protect the area from disturbance as determined by the director based on consideration of soils, climate, method of operation, geology, and other regional characteristics, the provisions of this section, in addition to other applicable provisions of this rule, shall also apply.

6.17. Downslope Placement. Spoil or debris including that from clearing and grubbing, shall not be placed on the downslope except as provided for in subsections 7.1., 7.2., or 7.3. of this rule.

6.18. Highwall Elimination. The highwall shall be eliminated using all available material and the disturbed area regraded in accordance with the pre-plan. Land above the highwall shall not be disturbed unless the director finds that the disturbance will benefit the future land use of this site or facilitate compliance with the requirements of this section.

6.19. Stabilization. The material used to backfill and regrade shall be sufficiently compacted or otherwise mechanically stabilized so as to insure stability of the backfill. Woody materials may be buried in the backfilled area only when the burial does not cause or add to instability.

§38-2B-7. Excess Spoil Disposal.

7.1. Disposal of Excess Spoil in Permanent Overburden Disposal Sites by Methods Other Than Valley or Head-of-Hollow Fills. Excess spoil or material to be placed in permanent disposal sites shall be transported to and placed in a controlled manner in disposal areas other than the mine workings or excavation only if all the provisions of this section are met.

7.1.a. Location of Disposal Sites. -- The disposal areas shall be within the permit area and they must be approved by the director as suitable for construction of fills. The disposal area shall be located on the most moderate slopes and naturally stable areas available.

7.1.b. Certification. -- Certification of the fill shall be as follows:

7.1.b.1. The fill shall be designed using recognized professional standards and certified by an approved registered professional engineer or other approved professional specialist; and

7.1.b.2. The fill shall be inspected for stability by an approved registered professional engineer after completion of the first fifty foot (50') lift, to assure removal of all organic material and topsoil, placement of under-drainage systems, and proper construction in accordance with the approved pre-plan. The approved registered professional engineer shall also provide a certified report upon completion of the fill that the fill has been constructed as designed in the approved pre-plan.

7.1.c. Stabilization. Where the slope in the disposal area exceeds 2.8 horizontal to one (1) vertical (thirty-six (36%) percent) or where necessary to achieve a static safety factor of 1.5, measures such as keyway cuts, rock toe buttresses or other techniques shall be used. All organic material shall be removed from the disposal area and the topsoil must be removed and segregated before the overburden is placed in the disposal area. Suitable organic material may be used as mulch or may be included in the topsoil. The spoil shall be transported and placed in a controlled manner, concurrently compacted as necessary to insure long-term mass stability and prevent mass movement. The fill shall be drained and graded to allow surface and subsurface drainage to be compatible with the natural surroundings.

7.1.d. Drainage. -- The disposal area shall not contain springs, natural water courses or wet weather seeps unless lateral drains are constructed from the wet areas to the under drains in such a manner that infiltration of the water into the fill shall be prevented. The drains shall be designed and constructed of course rock. If no filter is designed for the under drain, sufficient capacity shall be provided to allow for partial plugging of the drain. No rock shall be used in under drains if it tends to disintegrate or if it is acid-forming or toxic-forming.

7.1.e. Construction. -- Construction of the fill shall be as follows:

7.1.e.1. All areas upon which the fill is to be placed shall first be progressively cleared of all trees, brush, shrubs, and other organic material. This material shall be removed from the fill area;

7.1.e.2. Depositing and compacting the fill in layers shall begin at the toe of the fill. The layers shall be constructed approximately parallel with proposed finish grade. All material shall be deposited in uniform horizontal layers and compacted with haulage equipment;

7.1.e.3. The thickness of the layers shall not exceed four (4) feet;

7.1.e.4. The outer slope shall be no steeper than two (2) horizontal to one (1) vertical. A twenty foot (20') wide bench shall be installed at a maximum of every fifty feet (50') in vertical height of the fill with a three percent (3%) to five percent (5%) slope toward the fill area, normal to such, and a one percent (1%) slope toward a rock rip-rap channel or natural drainway; and

7.1.e.5. When construction of each lift (maximum of every fifty feet (50') in vertical height) of the fill is completed, topsoil or other suitable material which will support vegetation shall be spread over the completed slope and bench. The slopes and benches shall then be seeded and mulched immediately in accordance with the approved revegetation plans.

7.2. Disposal of Excess Spoil Materials in Valley or Head-of-Hollow Fills. Excess spoil being placed in permanent overburden disposal sites shall be transported to and placed in a controlled manner; spoil to be disposed of in natural valleys must be placed in accordance with the following requirements:

7.2.a. Location of Excess Spoil Areas. The disposal areas shall be within the permit area and they must be approved by the director as suitable for construction of fills. The disposal area shall be located on the most moderate slopes and naturally stable areas available.

7.2.b. Certification. Certification of the fill shall be as follows:

7.2.b.1. The fill shall be designed using recognized professional standards and certified by an approved registered professional engineer; and

7.2.b.2. The fill shall be inspected for stability by an approved registered professional engineer after completion of the first fifty (50) foot lift, to assure removal of all organic material and topsoil, placement of under-drainage systems, and proper construction in accordance with the approved pre-plan. The approved registered

professional engineer shall also provide a certified report upon completion of the fill that the fill has been constructed as designed in the approved pre-plan. Any deviations from the approved pre-plan which result from unforeseen site specific circumstances arising during construction, shall be reflected in as-built plans submitted by the operator and approved by the director immediately following construction. The as-built plans shall indicate the original design, the extent of the changes, and reference points. If as built plans are submitted, the certification shall describe how and to what extent the construction deviates from the proposed design and shall certify that the fill will meet rule standards.

7.2.c. Stabilization. Where the slope in the disposal area exceeds 2.8 horizontal to one (1) vertical (thirty-six (36) percent) or where necessary to achieve a static safety factor of 1.5, measures such as keyway cuts, rock toe buttresses or other techniques shall be used. All organic material shall be removed from the disposal area and the topsoil must be removed and segregated before the overburden is placed in the disposal area. Suitable organic material may be used as mulch or may be included in the topsoil. The spoil shall be transported and placed in a controlled manner, concurrently compacted as necessary to insure long-term mass stability and prevent mass movement. The fill shall be drained and graded to allow surface and subsurface drainage to be compatible with the natural surroundings.

7.2.d. Drainage. -- The disposal area shall not contain springs, natural water courses or wet weather seeps unless lateral drains are constructed from the wet areas to the under drains in such a manner that infiltration of the water into the fill shall be prevented. If springs, natural water courses or wet weather seeps are encountered, a system of under drains shall be constructed from each spring or seepage area as lateral drains to the rock core. If no filter is designed for the under drain, sufficient capacity shall be provided to allow for partial plugging of the drain. No rock shall be used in under drains if it tends to disintegrate or if it is acid-forming or toxic-forming.

7.2.e. Construction. -- Construction of the fill shall be as follows:

7.2.e.1. All areas upon which the fill is to be placed shall first be progressively cleared of all trees, brush, shrubs, and other organic material. This material shall be removed from the fill area. No more than three (3.0) acres, excluding roadway for construction of fill, shall be cleared in the valley fill site until the first lift is completed;

7.2.e.2. A rock core shall be progressively constructed as the layers are brought up through the valley fill. The rock core shall be a minimum of sixteen feet (16') in width and composed of rock with a minimum dimension of twelve inches (12"). The rock core shall consists of no more than ten percent (10%) fines as determined by visual inspection (fines being a material with a dimension of less than twelve inches) (12");

7.2.e.3. Depositing and compacting the fill in layers shall begin at the toe of the fill. The layers shall be constructed approximately parallel with proposed finish

grade. All material shall be deposited in uniform horizontal layers and compacted with haulage equipment;

7.2.e.4. The thickness of the layers shall not exceed four feet (4');

7.2.e.5. During and after construction, the top of the fill shall be graded to drain back to the head of the fill on a slope no greater than three percent (3%). A drainage pocket shall be maintained at the head of the fill at all times to intercept surface runoff. Maximum size of the drainage pocket shall be ten thousand (10,000) cubic feet;

7.2.e.6. The outer slope shall be no steeper than two (2) horizontal to one (1) vertical. A twenty foot (20') wide bench shall be installed at a maximum of every fifty feet (50') in vertical height of the fill with a three percent (3%) to five percent (5%) slope toward the fill area, normal to such, and a one percent (1%) slope toward a rock rip-rap channel or natural drainway; and

7.2.e.7. When construction of each lift (maximum of every fifty feet (50') in vertical height) of the valley fill is completed, topsoil or other suitable material which shall support vegetation shall be spread over the completed slope and bench excluding the rock core. The completed slope and bench shall then be seeded and mulched immediately in accordance with the approved revegetation plans.

7.3. Durable Rock Fills. The director may approve the design, construction, and use of a single lift fill consisting of at least eighty (80) percent durable rock if it can be determined, based on information provided by the operator, that the following conditions exist:

7.3.a. Geotechnical Information -- Examination of core borings and the geologic column show that the overburden consists of durable sandstone, limestone, or other durable material in sufficient thickness and amounts to generate spoil material that is eighty (80) percent or greater durable rock. Where the fill will contain non-cemented clay shale, clay spoil, or other nondurable material, such material must be mixed with durable rock in a controlled manner such than no more than twenty (20) percent of the fill volume is not durable rock. Tests shall be performed by a Registered Professional Engineer and approved by the director to demonstrate that no more than twenty (20) percent of the fill is not durable rock.

7.3.a.1. The durable rock shall not consist of acid-producing or toxic-forming material, shall not slake in water, or shall not degrade to soil material. For purposes of this paragraph only, soil material means material of which at least fifty (50) percent is finer than 0.074 mm, which exhibits plasticity, and which meets the criteria for group symbol ML, CL, OL, MH, CH, or OH, as determined by the United Soil Classification System (ASTM D-2487).

7.3.a.2. The toe of the fill shall rest on natural slopes no steeper than twenty (20) percent.

7.3.b. The fill shall be designed based on the results of sufficient geotechnical investigations of the construction site. The investigation shall include such factors as geologic conditions, soil characteristics, depth to bedrock location of springs, seeps and groundwater flow, potential effects of subsidence and a description of materials to be placed in rock cores and drains.

7.3.c. The design and construction of all durable rock fills must be certified by a registered professional engineer experienced in design and construction of earth and rock embankments.

7.3.d. The foundation of the fill and the fill shall be designed to assure a long-term static safety factor of 1.5 or greater, and meet an earthquake safety factor of 1.1.

7.3.e. The outer slope or face of the fill shall be regraded to be no steeper than two (2) horizontal to one (1) vertical (2:1). Terraces shall be constructed on the fill at a maximum of every fifty (50) feet in vertical rise above the toe of the fill. The terraces shall be no less than twenty (20) feet in width and slope toward the fill at a three (3) to five (5) percent grade and slope laterally at one (1) percent grade to discharge channels capable of passing the peak runoff for a one-hundred (100) year twenty-four (24) hour precipitation event.

7.3.f. All areas upon which the fill is to be placed shall first be progressively cleared of all trees, brush, shrubs and other organic material which is above ground level; provided that, in critical foundation areas, including, but not limited to, the toe of the fill, seepage or underdrain areas, and downstream portions of the fill that provide resisting force against massive slope failure, all organic material both above and below that ground surface must be removed. This material shall be disposed of outside the fill area.

7.3.g. The underdrain system may be constructed simultaneously with excess spoil placement by natural segregation of dumped materials; provided, that the resulting underdrain system shall be capable of carrying anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and other springs in the foundation of the disposal area and the other requirements for drainage control shall be met. If the underdrain system is not constructed by natural segregation of dumped material, it shall be designed and constructed in accordance with subdivision 7.2.d. and paragraph 7.2.e.2. of this rule.

7.3.h. Surface water runoff from areas above and adjacent to the fill shall be diverted into properly designed and constructed stabilized diversion channels which have been designed using the best current technology to safely pass the peak runoff from

a 100 year, 24 hour precipitation event. The channel shall be designed and constructed to ensure stability of the fill, control erosion, and minimize water infiltration into the fill.

7.3.i. The grade of the top surface of the completed fill shall not exceed five (5) percent and shall slope toward the drainage channel.

7.3.j. No permanent impoundments may be constructed on the completed fill except small depressions may be allowed if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation; and if they are not incompatible with the stability of the fill.

7.3.k. Notwithstanding any other provisions of this rule or terms and conditions of a permit to the contrary, additional storage capacity or sediment control measures may be required through permit revision if sediment removal performance of the structure(s) during operation and construction of the fill is found to be deficient to the point that significant non-compliance with applicable effluent limits or water quality standards results.

7.3.l. The following materials are hereby prohibited from being placed, deposited, or disposed of into a durable rock fill or durable rock fill area:

7.3.l.1. Surface soils, provided that such soils used to establish vegetation on the surface of the fill are not prohibited; provided, however, the such soils may be placed in the fill if accounted for in design and construction as nondurable material and such soils are not deposited in critical zones of the fill;

7.3.l.2. Mud, silt, or sediment cleaned or removed from mining pits, roadways, sediment control structures and/or other areas of the operation;

7.3.l.3. Vegetative or organic materials cleared or grubbed from the permit or other areas; and

7.3.l.4. Coal refuse.

7.3.m. Inspection and Certification of Durable Rock Fills -- Certification of all durable rock fills shall be required as follows:

7.3.m.1. The fill and appurtenant structures shall be designed in accordance with professional design standards, which meet the requirements of this subsection, and certified by a registered professional engineer experienced in the design of earth and rock fill embankments;

7.3.m.2. During construction, the fill shall be inspected quarterly for stability by a registered professional engineer experienced in the construction of earth or rock fills or other qualified professional specialist working under the direction of a

professional engineer experienced in the construction of earth or rock fills. Regular inspections are also required during placement and compaction of fill materials and during critical construction periods such as foundation preparation, underdrain placement, installation of surface drainage systems, and construction of rock toe buttresses. Within two (2) weeks following completion of the inspections, a report certified by the registered professional engineer shall be submitted to the director. The certified report shall contain a statement that the fill is being constructed and maintained as designed in accordance with the approved plan and this rule. The report shall also note any instances of apparent instability, structural weaknesses, and other hazards. The report on the drainage system and protective filters shall include color photographs taken during and after construction, but before the underdrains are covered with excess spoil. Color photographs shall be of sufficient size and number to provide a relative scale and to clearly identify the site. If the underdrains are constructed in phases, each phase must be certified separately. If excess durable rock spoil is placed such that the underdrain system is constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, color photographs of the underdrains must be taken as they are formed. All color photographs shall be of adequate size and number to provide a relative scale and to clearly identify the site. A copy of the certified report shall be maintained at the mine site;

7.3.m.3. After total completion of the fill, a certification form shall be completed and submitted to the director by the registered professional engineer overseeing construction of the fill; and

7.3.m.4. In addition to the requirements of subparagraph (2) of this paragraph, certification forms for durable rock fills shall be accompanied by the following:

7.3.m.4.A. A statement attesting that the fill contains no more than twenty-percent (20%) non-durable material;

7.3.m.4.B. A statement attesting that foundation preparation is proceeding in accordance with the design plans;

7.3.m.4.C. A statement that prohibited material are not being placed, deposited, or disposed of into the fill area; and

7.3.m.4.D. A statement that sediment control measures are constructed and being maintained in accordance with the approved design plans and the terms and conditions of the permit.

7.4. Variance. Where it can be demonstrated that other design criteria are justified, certain requirements of this section may be waived. The basis for justification are, but not limited to, land use potential, unavailability of durable rock, and site stability.

§38-2B-8. Revegetation and Standards for Evaluating Vegetative Cover.

8.1. General Requirements. -- Each operator shall establish on all regraded areas and all other disturbed areas a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area of disturbed land, or introduced species that are compatible with the approved postmining land use.

8.2. Objective in Revegetation. -- The objective in revegetation is to quickly establish a vegetative cover on all disturbed areas to minimize erosion, provide economic benefits, and restore aesthetic appeal. Plants that will give a quick permanent cover and enrich the soil shall be given priority. A temporary or permanent cover should be established by the end of the first growing season and a permanent cover by the end of the second growing season. All plants shall be considered a tool in achieving stabilization and an appropriate land use objective.

8.3. Seeding and Planting.

8.3.a. 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 except as otherwise specified in this rule.

8.3.b. Minesoil Characteristics. -- Surface mining of minerals and removal of overburden results in minesoil which varies greatly in fertility, acidity and stoniness. These three (3) characteristics, together with steepness of slope, shall be used in determining characterization for the purpose of establishing vegetation. Premining overburden sampling and analysis or previous experience and correlation data, shall be submitted with the pre-plan for all acid-producing seams. The plan shall identify acid strata and provide planned handling and final placement for acid strata. Overburden analysis shall be in accordance with standard procedures outlined in Environmental Protection Agency Manual No. 600/2-78-054 (Field & Laboratory Methods Applicable to Overburdens and Minesoils) or other approved methods by the Division of Environmental Protection.

8.3.c. Function of Temporary Cover Crops. -- On areas where excessive erosion is likely to occur, rapid establishment of vegetative cover shall be required. Seeding of annuals and biennials on such areas shall be considered as a means for achieving temporary vegetative cover only and not acceptable in the achievement of permanent cover. See Table five (5).

8.3.d. Development of Planting Plan. -- Planting plans shall be a part of the premining and reclamation plan. The mining plan and the projected configuration after mining shall be the basis for classifying the area as follows:

8.3.d.1. Tests for minesoil acidity, expressed as pH, shall be taken at points distributed uniformly over the disturbed area. Minesoil tests may be made with accepted field indicators or other approved techniques. Minesoils with chemical characteristics that could restrict vegetation establishment and growth shall be analyzed by an approved soils laboratory;

8.3.d.2. Treatment to neutralize acidity;

8.3.d.3. Mechanical seed bed preparation;

8.3.d.4. Rate and analysis of fertilization;

8.3.d.5. Rates and types of mulch;

8.3.d.6. Perennial vegetation including herbaceous and woody plants where appropriate, rate and species;

8.3.d.7. Areas to be planted or seeded to trees and shrub;

8.3.d.8. Land use objective; and

8.3.d.9. Maintenance schedule if appropriate

8.3.e. Concurrent Revegetation. -- Seeding shall be concurrent with the operation as mining and reclamation progresses.

8.3.f. Development of Final Planting Plan. -- A final planting plan shall be prepared and submitted to the director for his approval within thirty (30) days after the grading and reclamation of the operation have been approved.

8.3.g. Plant Material Selection and Treatment.

8.3.g.1. Specifications. -- All planting plans for woody vegetation shall include provisions for herbaceous cover using a suitable mixture from Table One (1). The following specifications should govern the selection and establishment of seeds and plants used in the revegetation of surface minesoil and based upon the following capability class:

8.3.g.1.A. On favorable minesoil material, prepared for perennial cover crop use, non-stoney and with pH 5.5 or higher, one of the following mixtures should be used:

8.3.g.1.A.1. Seed mixtures one (1), two (2), three (3), four (4), or five (5) from Table one, of this rule should be applied where annual

maintenance treatment is assured. Mixture four (4) should be applied where the graded portion of minesoil is to be used as a firebreak or occasionally as a haulageway;

8.3.g.1.A.2. Establishment of grass, legume or perennial grass cover crop shall require the following treatment:

8.3.g.1.A.2.(a) Inoculation of legume seed with proper strain;

8.3.g.1.A.2.(b) Triple inoculation rate if hydro-seeded;

8.3.g.1.A.2.(c) Protection of seeded minesoil area from grazing livestock;

8.3.g.1.A.2.(d) Application of lime to pH 6.0 for mixture four (4), to pH 6.5 to 7.0 for all other mixtures;

8.3.g.1.A.2.(e) Application of fertilizer shall be based on a minesoil test for lime, phosphorus, and potash from a soils lab or shall be a minimum of two-hundred (200) lbs., ammonium nitrate and two-hundred (200) lbs. triple super phosphate or equivalent;

8.3.g.1.A.2.(f) Preparation of seed bed by harrowing, discing or other approved methods; and

8.3.g.1.A.2.(g) Completion of fall seeding for legumes should be completed by September 1.

8.3.g.1.A.3. Maintenance of cover crop shall be carried out by the operator until the cover crop is adjudged by the director to be satisfactorily established and may require the following treatment:

8.3.g.1.A.3.(a) Maintain pH 6.5-7.0 for Mixture one (1);

8.3.g.1.A.3.(b) Maintain pH 6.0-6.5 for Mixture two (2), three (3), four (4), and six (6);

8.3.g.1.A.3.(c) Maintain pH 5.5-6.0 for Mixture four (4); and

8.3.g.1.A.3.(d) Top dress every two (2) years with four-hundred (400) lbs. per acre 0-20-20 for Mixture five (5).

8.3.g.1.B. On favorable minesoil material prepared for woodland and wildlife use, any one mixture from Table two (2) of this rule, 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.

8.3.g.1.B.1. Establishment of plant growth for woodland cover on favorable minesoil material prepared for woodland and wildlife use, should require the following:

8.3.g.1.B.1.(a) Spring planting of seedlings not later than May 1st and preferably before April 15th; and

8.3.g.1.B.1.(b) Spacing of shrubs and all trees in a pattern eight feet (8') by eight feet (8') apart of six hundred-eighty (680) trees per acre.

8.3.g.1.B.2. Establishment of crown vetch-rye grass or Serecia-tall Fescue mixtures for wildlife cover may be done in accordance with paragraph 8.3.g.1.A.2 of this rule.

8.3.g.1.C. On moderately favorable minesoil material, prepared for woodland and wildlife use, with pH 5.5 and above, graded but stoney, on moderate to steep slopes, non-stoney and stoney, one of the mixtures with specified proportion and treatment from Table three (3), of this rule should be used:

8.3.g.1.C.1. Over seeding on moderate to steep slopes on tree planting sites shall be carried out on minesoil in order to prevent siltation, established ground cover and minimize erosion. Seed one of the mixtures from Table one (1); and

8.3.g.1.C.2. Establishment of plant growth shall require inoculation of legume seed with proper strain, and shall be protected from grazing by livestock. Triple inoculation rate if hydroseeding.

8.3.g.1.D. On favorable minesoil material prepared for woodland and wildlife use, which includes all extremely steep and/or stony minesoil, one of the mixtures with specified proportions and treatment from Table three (3) of this rule shall be used:

8.3.g.1.D.1. Establishment of plant growth should require:

8.3.g.1.D.1.(a) Broadcasting Mixture one (1) and three (3) before May 1st and frost seeding mixture two (2) by early March; and

8.3.g.1.D.1.(b) Black locust seed must be seventy percent (70%) or more viable. All legumes must be inoculated and must be protected from grazing by livestock. Triple inoculation rate if hydroseeding. Mixture No. one (1) of Table three (3), should be used for extremely stoney areas when tested acidity indicated a pH of 4.0 or better.

8.3.g.1.E. Other species of trees, shrubs, grasses, legumes or vines may be approved by the director.

8.3.h. Mulch Specifications. -- Mulch shall be used on all disturbed areas. Annual grains such as oats, rye, wheat, etc. may be used instead of mulch when it is shown to the satisfaction of the director that the substituted grains shall provide adequate stability and that they shall be replaced by species approved for the post mining land use. Approved materials and 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 techniques approved by the director.
Wood fiber or wood cellulose products	1,000 lbs.
Shredded Bark	50 cubic yards

8.3.i. Standards for Evaluating Vegetative Cover.

8.3.i.1 Final Planting Report. -- A planting report shall be prepared by the operator 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.

8.3.i.2. Time for Inspection. -- The operator shall review all areas he has under permit prior to the recognized spring and fall planting seasons. The operator shall cause those areas deficient of vegetative cover to be retreated, graded, seeded, planted, mulched, limed, or whatever, to establish a satisfactory stand of vegetation.

8.3.i.3. Standards for Perennials. -- Standards for legumes and perennial grasses shall require at least an eighty percent (80%) ground cover. Substandard areas shall not exceed one-fourth (1/4) acre (100' X 100') in size nor total more than twenty percent (20%) of the area seeded. Exceptions to this standard may be authorized by the director based on the following:

8.3.i.3.A. For areas to be developed for industrial or residential use less than two (2) years after regrading is completed, the ground cover of living plants shall not be less than required to control erosion.

8.3.i.4. Standards for Woody Plants with Perennials. -- Standards for woody plants with legumes and perennial grasses overseeded shall require a sixty percent (60%) establishment of ground cover of legumes and perennial grasses, and four hundred (400) trees (including volunteer tree species) and/or planted shrubs per acre, comprising a satisfactory vegetative ground cover as determined by the director. Substandard areas shall not exceed one-fourth (1/4) acre (100' X 100') in size not total more than twenty percent (20%) of the area seeded or planted.

8.3.i.5. Final Inspection Report. -- In no instance shall the official vegetative cover evaluation be carried out until the planting and seeding concerned has survived two (2) growing seasons or a minimum of eighteen (18) months. A final inspection report shall be prepared and filed following inspection to determine that the above evaluative standards have been complied with. If acceptable, the director may then cause the permit and bond to be released.

§38-2B-9. Mapping, Approved Persons, and Markers.

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

9.1.a. Scale on a U.S. geological survey topographic seven point five (7.5) minute quadrangle shall be enlarge to five hundred feet (500') or less to the inch; and

9.1.b. Scale on aerial photograph shall be six hundred sixty feet (660') or less to the inch.

9.2. Scale for Progress, Alternate Plan and Final Maps. -- The scale required for progress maps, alternate plan maps and final maps shall be the same scale as the proposal and drainage map.

9.3. Scale Approved. -- Written permission from the director shall be required prior to the submission of maps drawn to any scale other than set forth by this rule.

9.4. Map Size. -- All maps and plans shall be submitted on standard print paper, twenty-four inches (24") by thirty-six inches (36") or less. If supplementary maps or plans are attached, match lines shall be used.

9.5. Color Code. -- A color code shall be used in preparing all maps to indicate critical features of the permit area as follows; provided, that drafted or computer generated graphic symbols or shading may be used in place of a color code, if a separate, uniquely

identifiable, and clearly discernible symbol or shading is provided in place of each color as specified below, and if the symbols or shading are clearly defined on map legends and used consistently throughout the permit application, and in any subsequent permit revisions, progress maps, or other submittals relating to the permit:

9.5.a. Red shall indicate mineral to be removed;

9.5.b. Yellow shall indicate the total disturbed land;

9.5.c. Blue shall indicate water and drainage;

9.5.d. Brown shall indicate special uses;

9.5.e. Green shall indicate regrading; and

9.5.f. Purple shall be used to outline adjacent mining permits.

9.6. Approved Person. Any person certifying the construction of drainage control structures, haulageways, or preparing a complete reclamation and/or mining plan for the area of land to be disturbed as required by the provisions of WV Code §22-4, as amended, or by this rule, shall first submit to the director a written resume of their past experience and training. A written test may also be administrated. On the basis of such resume and/or written test, he or she shall be adjudged qualified or not as the case may be, and so notified by the director in writing. Approved person status may be revoked at the discretion of the director.

9.7. 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.

§38-2B-10. Transfer or Sale of Permit Rights.

10.1. The director may grant written approval for the transfer or sale of a permit under the following terms and conditions:

10.1.a. The application for transfer or sale shall be set forth on forms prescribed by the director;

10.1.b. The applicant for transfer or sale of a permit shall, upon filing of the application with the director, give notice of the filing in a newspaper of general circulation in the locality of the operation. The notice shall be in the form of a legal advertisement containing information as set forth on forms provided by the director, the name and address of the original permittee and the permit number and shall provide for a thirty (30)

day comment period. Any person whose interests are or may be adversely affected, may submit written comments to the director within thirty (30) days of the date of publication;

10.1.c. Approval of the application for transfer or sale of a permit may be granted upon a written finding by the director that the applicant will conduct mining operations in accordance with the purposes and intent of the Act, this rule, and the terms and conditions of the permit. Such findings shall be based on information set forth in the application for transfer or sale and any other information made available to the director. Such approval may be granted in advance of the close of the public comment period Provided: That where information is made available to the director as a result of public comment that would preclude approval, such approval shall be immediately withdrawn;

10.1.d. Each application for a transfer or sale of a permit shall contain a sworn statement as follows: The information contained in this application is true and correct to the best of my knowledge and belief. Such statement shall be signed by a principal officer of the applicant and shall be notarized; and

10.1.e. Any person who, through whatever means, assumes ownership or control directly or indirectly of a quarry operation shall be eligible to receive a permit and shall become responsible for the correction of all outstanding unabated violations.

§38-2B-11. Public Notice, Permit Renewals, Permit Revisions, and Incidental Boundary Revisions

11.1. Public Notice.

11.1.a. In addition to the requirements of WV Code §22-4 for a class III legal advertisement for new permit applications, any person who may be adversely affected by the issuance of the new permit, or a significant revision of a permit, may request a public hearing.

11.1.b. Such request for a public hearing shall be in writing and received by the director before the close of the public comment period.

11.1.c. The director shall conduct the public hearing in the locality of the proposed mining within three (3) weeks after the close of the public comment period.

11.1.d. Those requesting the public hearing shall be notified, and the date, time, and location of the public hearing shall also be advertised by the director in a newspaper of general circulation in the locality of the proposed mining at least one (1) week prior to the scheduled hearing date.

11.1.e. The director's authorized agent shall preside over the public hearing; and

11.1.f. In the event all parties requesting the public hearing stipulate agreement prior to the hearing and withdraw their request, a hearing need not be held.

11.2. Permit Renewals.

11.2.a. Each request for a permit renewal shall be submitted on forms prescribed by the director, shall contain a sworn statement as follows: The information contained in this application is true and correct to the best of my knowledge and belief and shall be signed by a principal officer of the applicant and shall be notarized.

11.2.b. Each application for a permit renewal shall be subject to review and approval by the director.

11.2.c. Each application for permit renewal shall be accompanied by a certificate of insurance affirming insurance coverages in the kind and amount as required by WV Code §22-4, and containing a statement affirming that the insurer shall promptly notify the director of any substantive change in the policy, including cancellations, terminations, or failure to renew. A true copy of the original policy of insurance shall be maintained current and on file with the director.

11.2.d. Each mining and reclamation plan shall be reviewed at the time of permit renewal to ensure compliance with the requirements of WV Code §22-4, this rule, and permit conditions. Consideration should be given to those areas which were permitted and disturbed prior to the effective date of this rule in allowing reasonable time to bring these areas into compliance. Those areas which were permitted, disturbed, and properly stabilized prior to the effective date of this rule will not be required to be reaffected.

11.2.e. When the application for permit renewal also contains revisions which constitute a significant departure from the terms and conditions of the existing permit, or which may result in a significant impact in any of the following areas, it shall be subject to the same public notice requirements required for a new permit:

11.2.e.1. Impact on the environment;

11.2.e.2. The health, safety, or welfare of the public;

11.2.e.3. The postmining land use;

11.2.e.4. Areas prohibited from mining by the Act; and

11.2.e.5. An individual's legal right to receive notice, as prescribed by the provisions of this rule.

11.2.f. When the application for permit renewal also contains permit revisions which constitute only an insignificant departure from the terms and conditions of the approved permit, it shall be deemed to be a non-significant revision requiring no public notice.

11.2.g. Each application for a permit renewal shall be accompanied by a Progress Map of an approved size and scale as the proposal maps indicating all new progress, disturbance, or revisions; Provided however, that those operations with no new disturbance or revisions since the last renewal may submit a notarized statement from the permittee stating this fact.

11.3. Permit Revisions.

11.3.a. Each request for a permit revision shall be submitted on forms prescribed by the director which shall be signed by a principal officer of the applicant and shall be notarized.

11.3.b. Each application for a permit revision shall be subject to review and approval by the director. The director shall make a determination, on the basis of information provided in the permit revision application, whether or not the revision is of a significant or non-significant nature. The following criteria shall provide guidance for making such a determination:

11.3.b.1. Where the permit revision constitutes a significant departure from the terms and conditions of the existing permit which may result in a significant impact in any of the following areas, it shall be deemed to be a significant revision and be subject to the same public notice requirements required for a new permit:

11.3.b.1.A. Impact on the environment;

11.3.b.1.B. The health, safety, or welfare of the public;

11.3.b.1.C. The postmining land use;

11.3.b.1.D. Areas prohibited from mining by the Act; and

11.3.b.1.E. An individual's legal right to receive notice, as prescribed by the provisions of this rule.

11.3.b.2. Where the permit revision constitutes only an insignificant departure from the terms and conditions of the approved permit, it shall be deemed to be a non-significant revision requiring no public notice.

11.3.c. The director may require reasonable revisions to mining permits where such revisions are necessary to assure compliance with the Act and this rule; provided, that the director shall notify the permittee that such revisions are necessary and shall provide a reasonable time for compliance.

11.4. Incidental Boundary Revisions (IBRs).

11.4.a. Incidental Boundary Revisions (IBRs) shall be limited to minor shifts or extensions of the permit boundary into non-mineral areas or areas where any mineral extraction is incidental to or of only secondary consideration to the intended purpose of the IBR or where it has been demonstrated to the satisfaction of the director that limited mineral removal on areas immediately adjacent to the existing permit is the only practical alternative to recovery of unanticipated reserves or necessary to enhance reclamation efforts or environmental protection. IBRs shall also include the deletion of permitted acreage which is overpermitted by another valid permit and for which full liability is assumed in writing by the successive permittee. Incidental Boundary Revisions shall not be granted to abate a violation where encroachment beyond the permit boundary is involved, unless an equal amount of acreage covered under the IBR for encroachment is deleted from the permitted area and transferred to the encroachment area.

11.4.b. General. Applications for IBRs shall be as follows:

11.4.b.1. The application shall be filed on forms provided by the director;

11.4.b.2. The application shall be accompanied by a map showing the areas covered by the IBR;

11.4.b.3. The application shall be accompanied by a reclamation plan for the area of the IBR which is consistent with the existing reclamation plan; and

11.4.b.4. The application shall be subject to review and approval by the director.

11.4.c. An IBR may not be implemented by any operator until written approval of the director has been granted.

11.4.d. The director shall make the following findings prior to approval of an IBR:

11.4.d.1. The IBR does not constitute a change in the postmining land use;

11.4.d.2. The IBR does not constitute a change in the method of mining;

11.4.d.3. The IBR shall not result in adverse environmental impacts of a larger scope or different nature from those described in the approved permit;

11.4.d.4. IBR shall facilitate the orderly and continuous conduct of mining and reclamation operations; and

11.4.d.5. An area permitted under an IBR must be contiguous to the original permitted area.

11.4.e. Upon review of an application for an Incidental Boundary Revision, the director may require an advertisement to be published which provides for a ten (10) day public comment period. The advertisement shall contain such information as set forth on a form prescribed by the director.

§38-2B-12. State and Federal Compliance.

The issuance of surface mining permit pursuant to WV Code §22-4, as amended, and any rules 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.

TABLE ONE

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

1.	Alfalfa	20 lbs.
	Orchard grass	10 lbs.
	Tall Fescue	15 lbs.
2.	Birdsfoot Trefoil	10 lbs.
	Tall Fescue	15 lbs.
3.	Birdsfoot Trefoil	10 lbs.
	Orchard grass	10 lbs.
4.	Orchard grass	20 lbs.
	Red Top	3 lbs.
5.	Crown Vetch	15 lbs.
	Tall Fescue	20 lbs.
	[2]Weeping Lovegrass	3 lbs.
6.	Crown Vetch	15 lbs.
	Rye Grass	15 lbs.
	[2]Weeping Lovegrass	3 lbs.

[1]APPROVED SEED MIXTURES FOR OVER SEEDING TREE AND SHRUB SEEDLINGS

7.	Tall Fescue	30 lbs.
	Birdsfoot Trefoil	15 lbs.
8.	Tall Fescue	20 lbs.
	Rye Grass	10 lbs.
	Birdsfoot Trefoil	15 lbs.
9.	Tall Fescue	20 lbs.
	[2]Weeping Lovegrass	3 lbs.
	Birdsfoot Trefoil	15 lbs.

FOR ELEVATIONS ABOVE 2500

10.	Tall Fescue	20 lbs.
	Red Top	4 lbs.
11.	Tall Fescue	20 lbs.
	[2]Weeping Lovegrass	3 lbs.
12.	Tall Fescue	20 lbs.
	Sweet Clover	10 lbs.

[1]Establishment of vegetation includes liming pH range 5.5-7.0. Application of fertilizer shall be based on soil test results from a soil laboratory. Without a soil test, apply 600 lbs. 10-20-10 or equivalent, and protection from grazing during the seedling state.

[2] Red Top may be substituted for Weeping Lovegrass for late summer and fall seedings at a rate of 3 lbs. per acre.

TABLE TWO

APPROVED WOODLAND PLANT MIXTURES
(Nursery Grown Seedlings)

	bands 6 rows or more in width White Pine	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 ormore 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 pine or hardwoods	Where owner's interest is wildlife improvement, plant in bands of 3 to 6 rows preferable 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 5.5.
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 6 x 6 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 5.5 or above.

1. Black Locust (3000') Plant in

TABLE THREE

[1]APPROVED MIXTURES
HERABACEOUS AND WOODY SPECIES FOR DIRECT SEEDING

1.	Tall Fescue	30 lbs.	
	Birdsfoot Trefoil	15 lbs.	
	Black Locust[2]	3 lbs.	
2.	Tall Fescue	20 lbs.	
	Rye Grass	10 lbs.	
	Birdsfoot Trefoil	15 lbs.	
	Black Locust[2]	3 lbs.	
3.	Tall Fescue	20 lbs.	
	Weeping Lovegrass	3 lbs.	
	Birdsfoot Trefoil	15 lbs.	
	Black Locust[2]	3 lbs.	
4.	Orchard grass	30 lbs.	Better suited to higher
	Birdsfoot Trefoil	10 lbs.	elevations above 2500'
	Black Locust[2]	3 lbs.	
5.	Orchard grass	20 lbs.	Better suited to higher
	Red Top	3 lbs.	elevations to 2500'
	Birdsfoot Trefoil	10 lbs.	
	Black Locust[2]	3 lbs.	

[1]Application of fertilizer shall be based on soil testing results from a soils laboratory. Without a soil test, apply a minimum of 600 lbs. per acre of 10-20-10 or 10-20-20. Equivalent amounts of nitrogen and phosphorus is acceptable.

[2]Black Locust seed may be omitted on the bench areas or where erosion is not a serious problem, or at elevations above 2000', 1/4 lb./acre Virginia Pine; 1/4 lb/acre White Pine, and 3 lbs./acre Japonica Intermedia may be substituted for Black Locust.

TABLE FOUR

[1]APPROVED MIXTURES FOR WATERWAYS, DIVERSIONS
DRAINAGE STRUCTURES, HAULAGEWAYS, HIGHWALL ACCESS, ETC.

1.	Tall Fescue	50 lbs.
	Birdsfoot Trefoil	10 lbs.
	Red Top	3 lbs.
2.	Perennial Rye Grass	20 lbs.
	Tall Fescue	30 lbs.
	Birdsfoot Trefoil	3 lbs.
3.	Tall Fescue	40 lbs.
	Crown Vetch	15 lbs.
	Red Top	3 lbs.
4.	Tall Fescue	50 lbs.
	Crown Vetch	15 lbs.
5.	Tall Fescue	30 lbs.
	Reed Canarygrass	20 lbs.
	Red Top	3 lbs.

NOTE: Weeping lovegrass at 3 lbs. per acre may be substituted for Red Top for spring and early summer seedlings on well drained areas.

[1]Application of fertilizer shall be based on soil test results from a soils laboratory. Without a soil test, apply a minimum of 600 lbs. per acre of 10-20-10 or 10-20-20. Equivalent amounts of nitrogen and phosphorus fertilizer is acceptable.

TABLE FIVE

[1]ANNUAL AND BIENNIAL COVER CROPS FOR TEMPORARY COVER

	Suggested Rates of Application - Pounds in Acres	Seeding Season
- Grasses -		
Balbo Rye	30 - 60	Fall
Abruzzi Rye	30 - 60	Fall
Wheat	30 - 60	Fall
Oats	30 - 60	Fall
Japanese Millet	10 - 15	Summer
Millets - German, Foxtail	10 - 15	Summer
Sudan Grass - Sorghum Hybrid	10 - 20	Summer
Pearl Millet	10 - 20	Summer
Sudan Grass	10 - 20	Summer
Annual Rye Grass	10 - 15	Spring or Fall
- Legumes -		
Kobe Lespedeza	5 - 10	Summer
Korean Lespedeza	5 - 10	Summer
Hairy Vetch	20 - 40	Fall
Sweet Clover	10 - 20	Summer
- Forbs -		
Buckwheat	30 - 60	Summer

[1]Application of fertilizer shall be based on soil test results from a soils laboratory. Without a soil test, apply a minimum of 600 lbs. per acre of 10-20-10 or 10-20-20. Equivalent amounts of nitrogen and phosphorus fertilizer is acceptable.