

WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

Form #2

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JUN 25 2 54 PM '97

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

NOTICE OF A COMMENT PERIOD ON A PROPOSED RULE

AGENCY: State Tax Division TITLE NUMBER: 110
RULE TYPE: Legislative; CITE AUTHORITY W. Va. Code §§ 11-1A-11 & 11-1C-5(b)
AMENDMENT TO AN EXISTING RULE: YES X NO
IF YES, SERIES NUMBER OF RULE BEING AMENDED: 11

TITLE OF RULE BEING AMENDED: Valuation of Active and Reserve Coal
Property for Ad Valorem Property Tax Purposes.

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED:

TITLE OF RULE BEING PROPOSED:

This rule may be accessed on the Internet through wvweb.net/taxdiv

IN LIEU OF A PUBLIC HEARING, A COMMENT PERIOD HAS BEEN ESTABLISHED DURING WHICH ANY INTERESTED PERSON MAY SEND COMMENTS CONCERNING THESE PROPOSED RULES. THIS COMMENT PERIOD WILL END ON July 25, 1997 AT 5:00 p.m.

ONLY WRITTEN COMMENTS WILL BE ACCEPTED AND ARE TO BE MAILED TO THE FOLLOWING ADDRESS.

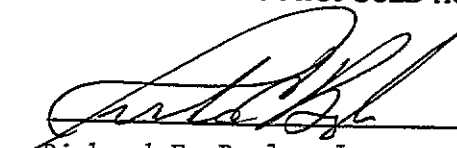
Legal Division

State Tax Division

P.O. Box 1005

Charleston, WV 25324-1005

THE ISSUES TO BE HEARD SHALL BE
LIMITED TO THIS PROPOSED RULE.


Richard E. Boyle, Jr.
State Tax Commissioner

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL



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JUN 25 2 54 PM '97

CECIL H. UNDERWOOD
GOVERNOR

STATE OF WEST VIRGINIA
DEPARTMENT OF TAX AND REVENUE

TAX DIVISION

P. O. Box 2389

Charleston, West Virginia 25328-2389

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE
ROBIN C. CAPEHART
SECRETARY

CONSENT TO FILE RULE

June 25, 1997

To Whom It May Concern:

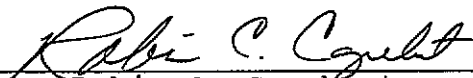
Title of Rule: Valuation of Active and Reserve Coal Property For Ad
Valorem Property Tax Purposes.

Title Number: 110

Series Number: 1I

Pursuant to West Virginia Code § 5F-2-2(a), the undersigned hereby
consents to the filing of the foregoing rule.

Signed this 25th day of June, 1997.


Robin C. Capehart
Secretary, Tax and Revenue



**STATE OF WEST VIRGINIA
DEPARTMENT OF TAX AND REVENUE**

**CECIL H. UNDERWOOD
GOVERNOR**

**TAX DIVISION
P. O. Box 2389
Charleston, West Virginia 25328-2389**

**ROBIN C. CAPEHART
SECRETARY**

STATEMENT OF CIRCUMSTANCE

110 C.S.R. 1I

**VALUATION OF ACTIVE AND RESERVE COAL PROPERTY
FOR AD VALOREM PROPERTY TAX PURPOSES**

This subject matter of this rule has been studied extensively by consultants as well as commented upon by members of the Board of Public Works. A new methodology for the valuation of active and reserve coal properties has been developed. This rule implements that methodology.



**STATE OF WEST VIRGINIA
DEPARTMENT OF TAX AND REVENUE**

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SECRETARY**

SUMMARY OF RULE

110 C.S.R. 1I

**VALUATION OF ACTIVE AND RESERVE COAL PROPERTY
FOR AD VALOREM PROPERTY TAX PURPOSES**

This rule explains and clarifies the methodology used to value the active and reserve coal properties in West Virginia.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Valuation of Active and Reserve Coal Property For Ad Valorem Property Tax Purposes.

Type of Rule: X Legislative Interpretive Procedural

Agency: State Tax Division

Address: P.O. Box 1005
Charleston, WV 25324-1005

1. Effect of Proposed Rule

	ANNUAL FISCAL YEAR				
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
<u>ESTIMATED TOTAL COST</u>	\$911,700	\$	\$911,700	\$152,800	\$ 68,000
PERSONAL SERVICES	0	0	0	\$ 46,000	\$ 48,000
CURRENT EXPENSE	\$911,700	0	\$911,700	\$ 94,800	\$ 20,000
REPAIRS & ALTERNATIONS	0	0	0	0	0
EQUIPMENT	0	0	0	\$ 12,000	0
OTHER	0	0	0	0	0

2. Explanation of above estimates:

Initial cost estimate of \$911,700 is from consultants report and will be incurred in Fiscal Year 97-98. Ongoing fiscal year costs consist of two (2) permanent positions and commensurate expenses. We estimate contractual costs of approximately \$75,000 for next fiscal year (FY 98-99) for consultants.

3. Objectives of these rules:

This rule explains the method for valuing active and coal property.

Rule Title: Valuation of Active and Reserve Coal Property For Ad
Valorem Property Tax Purposes.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

The amendments to the rule should have no economic impact on state government.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of Citizens.

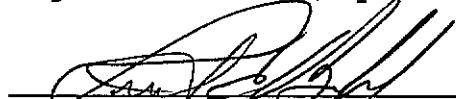
The property taxes of some coal properties may increase while for other coal properties, the tax may decrease.

C. Economic Impact on Citizens/Public at Large.

None.

Date: June 25, 1997

Signature of Agency Head or Authorized Representative



Richard E. Boyle, Jr.
State Tax Commissioner

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PROPOSED

JUN 25 2 54 PM '97

LEGISLATIVE RULES

TITLE 110

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

SERIES 1I

VALUATION OF ACTIVE AND RESERVE COAL PROPERTY FOR
AD VALOREM PROPERTY TAX PURPOSES

§ 110-1I.1. General.

1.1 **Scope.** -- This rule clarifies and implements State law as it relates to the appraisal at market value of active and reserve coal properties.

1.2 **Authority.** -- W. Va. Code § 11-1A-11 and 11-1C-5(b).

1.3 **Filing Date.** --

1.4 **Effective Date.** --

1.5 **Repeal of Former Rule.** -- This legislative rule repeals and replaces W. Va. 110 C.S.R. 1I "Valuation of Active and Reserve Coal Property for Ad Valorem Property Tax Purposes" filed July 26, 1991 and effective July 26, 1991.

§ 110-1I-2. Introduction.

Coal is one of the several estates in real property which may be owned either separately or in conjunction with other estates. If coal is owned as a separate estate, either absolute, as a leasehold, or in conjunction with other estates, West Virginia property tax law requires such ownership to be listed, valued and taxed. Coal may be owned without being mined. Coal title may exist where no coal is actually present (barren), or where the coal is unmineable or mined-out. For valuation purposes this rule classifies coal property into the following categories: **Active, Reserve, Unmineable, Mined-out, Barren**

This rule proposes a newly-developed appraisal process for reserves and much of the data used to estimate appraised value will likewise be new. The Tax Commissioner shall therefore provide notices of appraised values to property owners of coal property in advance of the July 1, 1998 proposed initial assessment date. This advanced notice, which will be based upon July 1, 1997 information, is intended to ensure that the newly-developed data is as accurate as possible for individual parcels and accounts representing coal ownership.

§ 110-1I-3. Definitions.

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As used in this rule, and unless the context clearly requires a different meaning, the following shall have the meaning ascribed herein, and shall apply both in the singular and in the plural:

3.1 **"Active Mining Property"** means a mineable bed of coal (as defined in this Section 3) on a parcel or portion of a parcel involved in a mining operation (as defined in this Section 3). Each and every mineable bed of coal in a permitted mining operation shall be a separate Active Mining Property.

3.2 **"Adjusted property value"** means the sum of the adjusted individual coal bed values.

3.3 **"Adjusted individual coal bed value"** means the individual coal bed index (as defined in this Section 3) for each coal bed on each property, multiplied by the aggregate ratio.

3.4 **"Aggregate value"** means the total value of in-place mineable coal in the State.

3.5 **"Aggregate active value"** means the total value of Active Mining Property (as defined in Section 3 of this rule) in the State.

3.6 **"Aggregate ratio"** means aggregate reserve value divided by the aggregate reserve index.

3.7 **"Aggregate reserve value"** means the aggregate value (as defined in this Section 3) less the aggregate active value (as defined in this Section 3).

3.8 **"Aggregate reserve index"** means the sum of products of the individual property calculations as determined by the Reserve Coal Valuation Model (RCVM).

3.9 **"Annual acres mined"** means the annual production (as defined in this Section 3) divided by the product of the average thickness in feet of the coal bed being mined (as detailed in annual mining reports), multiplied by eighteen hundred (1800) tons per acre foot, multiplied by the clean coal recovery rate (either run-of-mine or washed). See Appendix A, Formula 1, for the formula used for calculating annual acres mined.

3.10 **"Annual production"** means the production of coal from mining operations as reported by coal bed and by mine.

3.10.1 Annual production, for active mining valuation purposes, means the arithmetic mean of the annual rate of coal production of three (3) years' production for the three most recent calendar years preceding the July 1st assessment date. If production during any of the three (3) years

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occurred during a period of less than eleven (11) months, such production will be annualized before an annual production is calculated.

3.10.2 Annual production, for purposes of determining the aggregate value, means the arithmetic mean of the last three calendar years of the total tons of coal mined in West Virginia, as reported to the Office of Miner's Health, Safety, and Training, adjusted for coal actually mined from other states but produced through portals located in West Virginia.

3.11 "Average coal price" for purposes of the reserve coal valuation model, means the arithmetic mean of the sum of the last three calendar years of total FOB-source (point of sale, no transportation) values of steam coal mined in West Virginia and sold on the "spot" market as reported on FERC Form 423 to the United States Department of Energy (USDOE) and to the West Virginia Public Service Commission (WVPSC), divided by annual production (as defined in Section 3.10.2 above), expressed in dollars/ton. Average coal price can also be expressed in dollars per million BTU and is determined by dividing the arithmetic mean of the sum of coal sales (as determined immediately above), by the sum of all steam coal BTU mined in West Virginia and sold on the "spot" market as reported on FERC Form 423 to the USDOE and to the WVPSC for the three most recent calendar years preceding the July 1st assessment date, calculated for the entire state as well as by coal bed and by location.

3.12 "Average royalty rate" means the arithmetic mean of blended underground and surface coal royalty rates, for leases that have occurred within at least the five (5) calendar years immediately preceding the July 1st assessment date.

3.13 "Bands of investment discount component" means a discount rate derived by assigning rates to various debt and equity investment financing tiers and summing these rates, weighted by their respective percentages of total financing.

3.14 "Barren" means fee/mineral/coal properties where the coal rights are owned but the coal was never deposited and/or has been subsequently removed by erosion.

3.15 "Base market location value" means the coal price per million BTU by coal bed by location, multiplied by the royalty rate by coal bed by location.

3.16 "BTU content" means number of British thermal units (BTU) in one pound of dry coal.

3.17 "BTU adjustment factor" means the penalties or bonuses on price related to the BTU content versus market price interaction.

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3.18 **"Capitalization rate"** means the rate used to convert an estimate of income into an estimate of market value. For further explanation see Section 4.1 of this rule.

3.19 **"Clean coal recovery rate"** means a decimal representing the percentage of marketable coal that is recovered, whether such coal is classified as run-of-mine-clean or washed-clean. The clean coal recovery rate must reflect the difference between calculated whole bed tonnage (tons-in-place) and mined tonnage as reported to the Office of Miner's Health, Safety and Training.

3.20 **"Coal bed"** means all the coal and associated rock partings, if any, lying between logical and/or practical roof and floor strata.

3.21 **"Coal bed index factor"** is the sum of all reserve coal bed valuation factors, divided by three and rounded to the nearest value of 20, 40, or 80.

3.22 **"Coal in-place price"** means the price per million BTU of estimated clean and marketable coal, before mining. Coal in-place price equals coal price (as defined in this Section 3) multiplied by the average royalty rate (as defined in this Section 3).

3.23 **"Coal Price"** means the FOB-source (point of sale, no transportation) price per million BTU of clean, marketable coal.

3.24 **"Coal property transfer"** means the transfer of coal rights on properties by sale or lease.

3.25 **"Commissioner" or "Tax Commissioner"** means the Tax Commissioner for the State of West Virginia, or his or her delegate.

3.26 **"Discount component"** means a rate reflecting a provision for returning to an investor a sum of money equal to the aggregate of the anticipated return-on-investment over the economic life of an investment.

3.27 **"Economic life method of recapture"** means a method of developing a recapture rate by estimating the period of time an investment will produce a return and estimating an equal periodic rate of recapture of the investment over this return period.

3.28 **"Environmental factor"** means an index that reflects the environmental impediments to mining, such as wild and scenic rivers, severe acid mine drainage problems, and areas designated unsuitable for mining as identified by the Division of Environmental Protection.

3.29 **"GIS"** means geographical information system, which, for purposes of this rule, is a computerized system to map and manage coal-related data.

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3.30 **"Individual coal bed index"** means the preliminary derived value for a specific coal bed on a property before adjustment using the aggregate ratio.

3.31 **"Life of mining (mine life)"** means the number of years required to exhaust a coal bed.

3.31.1 In the case of appraisal of Active Mining Property, life of mining shall mean the number of years required to exhaust the coal bed at the annual production rate, to a maximum of fifteen (15) years. Fractional years will be rounded to the nearest whole number.

3.31.2 In the case of appraisal of reserves, for the calculation of aggregate value (as defined in this Section 3), life of mining means the number of years required to exhaust the total known reserves of coal in West Virginia.

3.32 **"Management rate"** means a rate reflecting a return to an investor for the management of similar investment portfolios.

3.33 **"Market comparison discount"** means a discount rate derived by dividing income net of recapture and property taxes by the willing buyer - willing seller price of the property.

3.34 **"Market comparison method of recapture"** means a recapture rate estimated by dividing income net of return on investment and property taxes by the willing buyer - willing seller price of the property.

3.35 **"Market interest factor"** means an index that indicates the relative coal market activity in a specified area.

3.36 **"Market mineability factor"** means an index that indicates the relative cost of mining in a specified area.

3.37 **"Metallurgical coal"** means bituminous coal that is suitable for making coke by industries that refine, smelt, and work with iron and/or steel.

3.38 **"Mineable coal bed"** means coal which is so situated that it may be mined using generally accepted mining practices and suitable equipment. Additionally, coal beds which are of a thickness less than twenty-eight inches (28") will not be classified as mineable coal unless there is evidence to the contrary.

3.39 **"Mined-out coal bed"** means a bed of coal, or any portion thereof, which has been depleted by prior mining operations and from which no additional coal is recoverable by generally accepted mining practices and suitable equipment, unless there is evidence to the contrary.

3.40 **"Mining operation"** means an enterprise permitted by the West Virginia Office of Miner's Health Safety and Training/Office of Mining and Reclamation to engage in actively obtaining or preparing to obtain coal or its by-products from the earth's crust, including underground, surface and/or auger mines. Each mining operation may have more than one (1) area designated as "Active Mining Property," as defined in this Section 3.

3.41 **"Multiplier"** means the "Present Worth of One (1) Per Period" for the life of the mining operation (as defined in this Section 3) employing the capitalization rate determined in Section 4.1. of this rule, through application of a standard mid-year life calculation.

3.42 **"Nonliquidity rate"** means a rate reflecting a return to an investor representing the loss of interest on an investment arising from the time required to sell the investment.

3.43 **"Operator"** means an individual, partnership or corporation that is engaged in actively obtaining or preparing to obtain coal and/or its by-products from the earth's crust on an Active Mining Property.

3.44 **"Present value per acre"** means the present value per acre of a coal bed on a property.

3.45 **"Prime coal bed"** means the thickest, previously mined, stratigraphically-highest coal bed in an area, with sufficient mineable tons to sustain mining for two (2) years in a specified area at the average rate of mining in the bed, in the general area, for the most recent three (3) calendar years.

3.46 **"Prime coal bed factor"** means an index that indicates the relative profitability of a set of coal beds in a specified area.

3.47 **"Property tax component"** means a rate reflecting a provision for returning to an investor a sum of money equal to property taxes paid over the economic life of an investment.

3.48 **"Recapture component"** means a rate reflecting a provision for returning to an investor a sum of money equal to his investment.

3.49 **"Reserves"** means those beds of coal, or portions thereof, which contain mineable coal, but are not in the active mining portion (as determined in Section 4.1 of this rule) of an Active Mining Property.

3.50 **"Reserve coal valuation model"** is a computerized valuation method applied in a mass appraisal environment to estimate value of reserve coal property for ad valorem property tax purposes.

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3.51 **"Risk rate"** means a rate reflecting a return to an investor necessary to attract capital to an investment containing a possible loss of principal and/or interest.

3.52 **"Safe rate"** means a rate reflecting a return to an investor on an investment which has little, if any, likelihood of loss of principal or of loss in anticipated return on investment.

3.53 **"Steam coal"** means bituminous coal that is mineable but that is not suitable for coking by industries that refine, smelt, and work with iron and/or steel.

3.54 **"Sulfur adjustment factor"** means the penalties or bonuses on price related to the Sulfur content versus market price interaction.

3.55 **"Sulfur content"** means a decimal representing the percent of sulfur in dry coal.

3.56 **"Summation discount component"** means a discount rate expressed as the aggregate of a safe rate, risk rate, nonliquidity rate, and management rate, adjusted for inflation.

3.57 **"Thickness"** means the measurement of all coal, including any thinner coals (splits) and also rock partings seen above or below the main block of coal, that comprises part of what is generally understood to be a logical mining unit. Methods of determining thickness for valuation are described in Section 4.1 and Section 4.2.

3.58 **"Unmineable coal bed"** means coal which is not mineable as defined in this Section.

3.59 **"Volatility content"** means a decimal representing the percentage of volatile matter in dry coal.

3.60 **"Volatility factor"** means a factor that identifies coal with a volatility content sufficiently low to render it unsuitable for steam coal markets.

3.61 **"1800 tons per acre foot"** means the weight, in tons, of a relatively clean coal bed one (1) foot in thickness (Thk) and covering one (1) acre, that has an assumed specific gravity of 1.32. See Appendix A, Formula 2 for the formula for calculating "1800 tons per acre foot."

§ 110-11-4. Valuation methods.

4.1 Method for determining value of active mining property.

4.1.1 General. -- The value of Active Mining Property (as defined in Section 3 of this rule) is the value per active acre mined multiplied by the number of active acres being mined. In no case will the active per acre rate on a coal bed be less than the applicable present value per acre (as defined in Section 3 of this rule) on the coal bed.

4.1.2 Determination of Active Mining Property. -- The designation of Active Mining Property areas shall be determined as follows:

4.1.2.a Operator (as defined in Section 3 of this rule) may designate or assign a portion of a parcel to an Active Mining Property when only such portion is suitable for mining purposes. For purposes of determining the actual area of the Active Mining Property, all contiguous parcels or portions of parcels containing the mineable coal bed(s) that are under lease, regardless of ownership, that fall within such a mining portion, shall be included. Parcels not leased or owned (adverse), that fall within the mining portion of Active Mining Property shall have the requisite mineable bed(s) of coal valued as reserves (as defined in Section 3)

4.1.2.b Any mining operation producing coal from one coal bed will be designated as an Active Mining Property. If the mining operation is producing coal from multiple coal beds under a single permit, then each such coal bed will be designated as a separate Active Mining Property.

4.1.2.c Any mining operation producing coal from one (1) coal bed at different portals and/or high-walls under one (1) specific permit, will be designated as one (1) Active Mining Property. If the production of coal involves different mining techniques (e.g. surface/auger or underground mining method), or if mining sites are separate and generally independent, then each such site will be designated as a separate Active Mining Property.

4.1.2.d If more than one permitted mining operation is mining a given coal bed on the same land/mineral parcel, then each such mining operation is a separate Active Mining Property. Under no circumstances shall the sum of the active acres for all mining operations on each bed exceed the total parcel acres. As necessary, the Commissioner shall apportion the number of acres for each mining operation, based upon a review of relevant taxpayer and/or operator information and leases, and the respective rates of average annual production.

4.1.2.e If the permitted mining operation has not begun production by the July 1st assessment date, the mineable coal will be reported on the Annual Appraisal Report for Production of Coal and valued as reserves. Once a parcel or portion(s) of a parcel has been assigned or designated to an Active Mining Property, it shall continue to be listed on an Annual Appraisal Report until such time as the permit has been retired.

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4.1.2.f If the mine ceases production after January 1st but before the July 1st assessment date, and there is mineable coal remaining in the coal bed, the remainder will be valued as reserves for the current tax year.

4.1.2.g The maximum active mining portion for each coal bed shall be fifteen (15) years multiplied by the annual acres mined. If the available mineable acreage of the coal bed being mined is less than the maximum amounts listed above, then the total available acreage will be considered for designation as the active mining portion.

4.1.2.h If there is no production during the most recent twelve months preceding the July 1st assessment date, the mineable acres of the Active Mining Property will be valued as reserves.

4.1.3 **Determination of Annual Production.** -- Annual production (as defined in Section 3 of this rule) shall be determined as follows:

4.1.3.a An arithmetic mean will be taken of tonnage as reported by producers and verified by the Commissioner through research of West Virginia Office of Miner's Health, Safety, and Training records and/or audit-derived information, for the three most recent calendar years preceding the July 1st assessment date.

4.1.3.b If production has not occurred in either the second or third most recent years, the arithmetic mean of the available one or two years production will be used.

4.1.4 **Value per active acre.** -- In the application of the valuation formula to an Active Mining Property, the appropriate calculation will be based upon the actual market to which the coal from the bed is currently being sold, whether it is metallurgical and/or steam. The factors to be used for the valuation formula are: the coal thickness in feet (Thk), 1800 tons per acre foot (1800), the clean coal recovery rate (RR), the Steam Coal royalty rate, underground or surface (SRoy), the Steam Coal Market (SCM), a net present value multiplier (M) and the mine life in years (ML); and the coal thickness in feet (Thk), 1800 tons per acre feet (1800), the clean coal recovery rate (RR) the Metallurgical Coal royalty rate, underground or surface (MRoy), the Metallurgical Coal Market (MCM), a net present value multiplier (M), and the mine life in years (ML). See Appendix A, Formula 3 for the formula used to determine the value per active acre (\$/ac).

4.1.5 **Thickness (ft.)** -- As defined in Section 3 of this rule, thickness will be determined as follows:

4.1.5.a An arithmetic mean will be taken of thickness as reported by producers and verified by the Commissioner through review of

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audit-derived information, for the three most recent calendar years preceding the July 1st assessment date.

4.1.5.b If production has not occurred in either the second or third most recent years, the arithmetic mean of the available one or two years thickness will be used.

4.1.6 1800 tons per acre foot -- see definition in Section 3 of this rule.

4.1.7 clean coal recovery rate. -- See definition in Section 3 of this rule.

4.1.8 Royalty rate. -- For use in Formula 3, prescribed by this Section 4, the royalty rate(s) shall be determined for each of the following four (4) different types of coal mining operations.

4.1.8.1 Underground mines, steam coal;

4.1.8.2 Underground mines, metallurgical coal;

4.1.8.3 Surface and/or auger mines, steam coal; and

4.1.8.4 Surface and/or auger mines, metallurgical coal.

These royalty rates shall be established annually by the Tax Commissioner after a review of both recorded and unrecorded, willing seller-willing buyer coal property leases that have occurred in the State of West Virginia and appropriate portions of adjacent states during at least the last five (5) years prior to the July 1st assessment date, and through inspection of any other appropriate information. The Tax Commissioner will maintain a data base on royalty rates and file a preliminary survey of results in the State Register on or before July 1st of each year; will accept written public comment on the survey until August 1st of each year; and issue the final royalty rates on or before September 1st of each year. From this survey, the Tax Commissioner will select the royalty rate(s) that best typify such coal property leases. In order to convert decimal royalty rates into specific dollars per ton rates, the Tax Commissioner will separately conduct a review of West Virginia coal selling prices, and select specific selling price rate(s) based on prices best typifying activity in each appraisal year. The selected selling price(s) per ton when multiplied by the decimal royalty will result in the specific dollar per ton royalty.

4.1.9 Steam and metallurgical coal market. -- See discussion in Section 4.1.4 of this rule.

4.1.10 Determination of Capitalization Rate. -- For use in determining the net present value multiplier used in Formula 3, prescribed in

this Section 4, a single statewide capitalization rate for coal will be determined annually by the Tax Commissioner through the use of generally accepted methods of determining such rates. The rate will be based on the assumption of a level, non-inflating income series. The capitalization rate used to value coal will be developed considering a discount rate determined by the summation technique.

The Commissioner will conduct a survey to develop components for determining the capitalization rate annually and preliminary results will be filed in the State Register on or before July 1st of each year. Public comment on the survey will be accepted until August 1st of each year, and final results to be used will be issued on or before September 1st of each year.

4.1.10.1 Determination of discount component. -- The summation technique will be used in developing a discount component of the capitalization rate. The Commissioner will determine the sum of the safe rate, the nonliquidity rate, the risk rate, and the management rate, and subtract the inflation rate from the sum. The five subcomponents of the discount component are discussed as follows:

4.1.10.1.a Safe Rate. -- The safe rate will reflect a rate of return that an investor could expect on an investment of minimal risk. It will be developed through review of interest rates offered on thirteen week United States Treasury Bills for a period of three (3) calendar years prior to the appraisal date.

4.1.10.1.b Nonliquidity Rate. -- The nonliquidity rate will be developed through an annual survey to determine a reasonable estimate of time that coal property when exposed to the market for sale, remains on the market until being sold. The time thus determined will be used to identify United States Treasury Bills with similar time differentials in excess of thirteen-week Treasury Bills. The interest differential between these securities will be used to represent the nonliquidity rate. For example, if it is determined that a coal property remains on the market for an average of nine months (39 weeks) before being sold, the nonliquidity rate will be derived by taking the rate on one year Treasury Bills minus the rate on 13-week Treasury Bills.

4.1.10.1.c Risk Rate. -- The relative degree of risk of an investment in coal property is difficult to determine from published interest rates. A survey of interest rates required on loans for acquisition and/or development of coal properties will be conducted annually and will cover a three calendar year period prior to the July 1st assessment date. Results of the survey will be compared to interest rates offered on thirteen-week United States Treasury Bills for the same three year period. The difference between the two combined with bands of investment analysis will be used as a basis to estimate the risk rate.

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4.1.10.1.d **Management Rate.** -- The management rate represents the cost of managing the investment, not the cost of managing the coal property. The management rate will be developed through a survey of investment firms to identify annual charges for the management of investment portfolios.

4.1.10.1.e **Inflation Rate (negative).** -- Nominal interest rates, including the "safe rate" mentioned above, are higher than real rates by an amount representing expectation of future inflation. However, net annual income from coal property is to be estimated assuming level future royalties (no inflation). Therefore, the capitalization rate must be a real rate, net of expectation of inflation. The inflation rate will be estimated through analysis of the most recent three calendar year's urban consumer price index as determined by the United States Department of Labor, Bureau of Labor Statistics.

4.1.10.2 **Determination of property tax component.** -- This component will be derived by multiplying the assessment rate by the statewide average of tax rates on Class III property. At the present time research indicates that royalty rates do not include property taxes as a component; rather, property taxes are paid by the producer as additional compensation. Thus, this component will not be used in the capitalization rate as defined in this rule unless the above described general practice of the coal industry changes.

4.1.11 **Determination of value of active mining portion.** -- The valuation of the active mining portion (VAMP) shall be determined by multiplying the annual acres mined (AAM), by the mine life (ML), by the value per active acre (\$/ac). See Appendix A, Formula 4, for the formula used to determine the value of the active mining portion.

4.2 Valuation of reserve coal.

4.2.1 **General.** -- Reserve coal shall be valued according to a reserve coal valuation model that takes into account the following: property location, coal bed, coal thickness, sulfur content, BTU content, volatility content, underground mine plus wash recovery rate, spot market sales of coal to power plants from West Virginia mines, royalty rates for coal leases from West Virginia and surrounding states, previous mining history, frequency of coal property transactions, environmental considerations, conflicting property use (oil and gas production), discount rate, and time of mining. Thus at any location the reserve coal appraisal will result from the derived coal bed-specific rate for each reserve coal bed acre multiplied by the reserve coal bed acres for each such coal bed present. These various factors will interact in estimating the value of reserve coal property as follows:

4.2.2 **Determination of Reserve Coal.** -- The determination of reserve coal beds and quantities at any location may be made by use of:

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taxpayer-supplied information, publicly-available information, audit-derived information, and Geographical Information System (GIS)-derived information. The minimum valuation placed on reserve coal shall never be at less than a rate of \$ 5.00 per acre.

4.2.3 Reserve Coal Valuation Methodology

4.2.3.1 Data collection and maintenance procedures -- In order to annually appraise the value of reserve coal in the State of West Virginia the Tax Commissioner shall maintain a Geographic Information System (GIS) which includes the following data sets:

Coal Bed Maps: Coal data including indications of the areal extent, mineable extent, thickness and various quality parameters for each identified coal bed

Mine Maps: Coal Mine operation data indicating the location and other pertinent data of all reporting coal mines currently operating and as many closed mines as possible

Prices: Coal sales information indicating the source location (coal mine), destination (buyer), transportation, and FOB-source price of coal sold from mines in West Virginia

Transactions: Coal property transaction information indicating the terms and locations of leases and sales of coal properties

Royalties: Coal royalty information indicating the location and terms of coal royalty agreements

Environmental Conflicts: Information indicating the general location of potential environmental problems which could impede permitting/mining

Use Conflicts: Data reflecting oil/gas well location/density, which may affect the cost of mining

Reserve Coal Property Location: Information indicating the general location of each individual taxable coal reserve property

Production: Data reflecting coal produced annually by mine and by coal bed

Capitalization rate: Market data necessary to develop a capitalization rate estimate

Current Active Mine Data: Active mine data from the Natural Resources Appraisal System

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These data sets will be used to create maps and tabular data for the determination of reserve coal property value. The data sets and maps will be managed as specified in the numbered sections below:

4.2.3.2 **Coal Bed Maps** -- The Tax Commissioner, together with the West Virginia Geological and Economic Survey, shall develop and maintain a Geographic Information System (GIS) comprised of maps and data files of all reserves in the State of West Virginia providing information concerning:

- ▶ Coal bed name
- ▶ Thickness
- ▶ BTU content
- ▶ Volatility
- ▶ Sulfur

The information will be obtained from the following sources:

Historic mining records:	Division of Environmental Protection; West Virginia Department of Commerce, Labor, and Environmental Resources
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Current mine permit documents and maps:	West Virginia Division of Environmental Protection
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Geologic data:	West Virginia Geological and Economic Survey, United States Geological Survey, academic institutions, and taxpayer information as legally released from confidentiality
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Coal delivery records which show quantity, quality, destination, and mine source information:	US Energy Information Administration, West Virginia Public Service Commission
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The maps and data files created will be updated at least every second year. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.3 **Mine Maps** -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which describe the location, size, and ownership of all reporting coal mines (historic and

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current) in the State of West Virginia, as available. These files will include but shall not be limited to the following:

- ▶ Mine location
- ▶ Mine name and permit number
- ▶ Operator name
- ▶ Annual tons mined
- ▶ coal bed(s) mined
- ▶ Thickness
- ▶ Coal quality (BTU, Ash, Sulfur, Volatility, Moisture)
- ▶ Royalty rates
- ▶ Coal sales (prices, destination, quantity and quality)

The information will be obtained from but not limited to the following sources:

Historic mining records:	West Virginia Division of Environmental Protection; Department of Commerce, Labor, and Environmental Resources; Office of Miner's Health, Safety, and Training;
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Current mine permit documents and maps:	West Virginia Division of Environmental Protection
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Coal delivery records which show quantity, quality, destination, and mine source information:	US Energy Information Administration, West Virginia Public Service Commission
---	---

The maps and data files created will be updated annually. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.4 **Prices** -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which document the FOB-source price of coal sales throughout the State. These files will be used to create price maps. These files will include but not be limited to records and estimates of:

- ▶ Coal source: mine location, mine name
- ▶ Tons shipped per sale
- ▶ coal bed(s) mined, if listed

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- ▶ Coal quality: sulfur, BTU, ash, moisture
- ▶ Transport mode
- ▶ Transport cost, if available
- ▶ Prices paid: delivered and FOB-source
- ▶ Destination

The information will be obtained from but not limited to the following sources:

Coal delivery
records which show
quantity, quality,
destination, and
mine source
information:

US Energy Information
Administration, West Virginia
Public Service Commission

The Commissioner will use this data to create an overall FOB-source price trend map and for individual coal beds, for the state of West Virginia. The data will also be used to determine overall sulfur and BTU adjustment factors by an annual survey of the market to determine price adjustments required by major purchasers of coal, attributable to BTU and sulfur content.

The maps and data files created will be updated annually, using the most recent three (3) calendar years of published data. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.5 Transactions -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which describe the terms, location, size, coal bed(s), and grantor/grantee of all coal property leases, sales, and permit applications in the State of West Virginia. These transaction files will be used as:

- ▶ An indication of the location and extent of the general interest in coal beds by ascertaining the ratio of the number of transaction within a 30 square mile area surrounding a property (leases, sales, and permits) which have involved named coal beds. These data will be incorporated in the GIS.
- ▶ A subset of the lease documents will be verified by contacting the lessee and/or lessor and used to create the GIS royalty trend map.

The maps and data files created will be updated annually. The maps will be interpolated from known data points using computer software containing

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accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.6 Royalties -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which describe the terms, location, grantor, grantee, identified coal bed(s), identified mining method, term and royalty rate(s) of leases/coal royalty agreements. Values will be maintained as a percentage per FOB-source price.

The maps and data files created will be updated annually using the most recent three (3) calendar years of information. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.7 Environmental Conflicts -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which provide general information concerning environmental restrictions and impediments to mining of coal. This data will be incorporated in the GIS. Sources for this information will be:

Location of areas designated as Unsuitable For Mining:	West Virginia Division of Environmental Protection
Location of buffer zones around land forms such as Rivers, Parks, Wild Areas, Scenic Areas, etc. :	West Virginia Division of Environmental Protection and West Virginia Geological and Economic Survey
General location of acid-bearing zones by coal bed:	West Virginia Division of Environmental Protection and West Virginia Geological and Economic Survey
Other Environmental information which may come to the attention of the Tax Commissioner	

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The maps and data files created will be updated when necessary, as determined by the Tax Commissioner. The maps will be interpolated from the known data points using computer software containing accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.8 Use conflicts -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which specify the location of all gas and oil wells in the state. This data will be used to correlate historical resource use with potential cost impediments for mining. Sources for this information will be the West Virginia Geological and Economic Survey and the West Virginia Division of Environmental Protection, Office of Oil and Gas.

The maps and data files created will be updated annually. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.9 Reserve property location -- The Tax Commissioner shall maintain files compatible with the Geographic Information System (GIS) which describe the general location, size, and ownership of all reserve properties in the State of West Virginia. These files will include but not be limited to:

- ▶ The geographic location (Latitude and Longitude of at least one point identifying the general location of the property)
Note: In the absence of an identifying location the valuation procedures will be based on identifying descriptive data such as coal bed name to obtain tax district average values for all pertinent valuation parameters. In the absence of identified coal bed names, the valuation procedures will be based on the prime coal bed (see Section 3 of this rule) for the District
- ▶ The name(s) of coal bed(s) located on the property
Note: In the absence of identified coal bed names the valuation procedures will be based on the prime coal bed (see Section 3 of this rule) for the District
- ▶ The size in acres of property
- ▶ The size in acres of each known coal bed(s)
- ▶ The fractional interest of undivided ownership, if available
- ▶ The name and address of all owners of record, if available
- ▶ Any known previous mining of any coal bed which could affect the use of the property

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- Any known current or proposed mining activity affecting the property

The maps and data files created will be updated annually. The maps will be interpolated from known data points using computer software containing accepted geologic and geographic interpolation procedures, as determined by the Tax Commissioner. Map interpolation will be limited by the resolution of the reserve property location, and in the absence of specific location information, valuation parameters will default to District-level parameters.

4.2.3.10 Production Files -- The Tax Commissioner shall maintain data files compatible with the Geographic Information System (GIS) which compile the annual tons of coal produced from all reporting mines. The production files will be maintained by permit number and will be used to indicate mineability of specific coal bed(s), over- and under-mining of specific coal bed(s) and to calculate remaining tonnage. These files will be based on coal bed-specific production subsequent to 1980, and on the allocation of production/depletion from the best available information for all known (reported) mines prior to 1981. The sources for these data include but are not limited to:

- West Virginia Department of Tax and Revenue
- West Virginia Office of Miner's Health, Safety, and Training

4.2.3.11 Capitalization rate file -- The Tax commissioner shall maintain data files containing financial and market information to be used to develop the capitalization rate estimate for coal property financing. These files shall include information enabling the development of a capitalization rate as described in Section 4.1 of this rule.

4.2.3.12 Active mine data -- The Tax Commissioner shall maintain data files reflecting information used to appraise Active Mining Property. These files shall include information enabling the valuation of Active Mining Property as described in Section 4.1 of this rule.

4.2.3.13 Reserve Property Coal Bed(s) to Be Valued -- The Tax Commissioner shall determine the name of each coal bed occurring at the reserve property location (either from property descriptive data or, in absence of specific information, by comparing the property with the GIS maps). In all cases the property data will be compared to the GIS maps and conflicts will be resolved either by revising the coal bed maps or by revising the coal bed data contained in the property record file.

4.2.3.14 Reserve Property Coal Quantity -- The Tax Commissioner shall determine the quantity of reserves by multiplying the thickness (in feet) of each coal bed at a GIS location by the areal extent of a coal bed (coal bed file) by 1800 tons per acre foot by the typical recovery

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rate for each coal bed at a GIS location. The reserve tonnage for each coal bed thus determined will be adjusted as follows:

Over- or Under-Mining	Percent of Subject Coal Bed Over- or Under-Mined	Percent of Subject Coal Bed Considered Mineable
Immediately Below	10 to 20 %	50 %
Immediately Below	20 to 50 %	25%
Immediately Above	20 to 50 %	75%
Immediately Above and Immediately Below	Over 10%	0 %

4.2.3.15 **Clean coal recovery rate** -- Using the GIS coal bed maps, the GIS historic production files, and the current mining files, the Tax Commissioner shall calculate the recovery rate for each coal bed at all mapped locations. This recovery rate will be used to determine mineable tonnage and mineable BTU.

4.2.3.16 **Reserve Property Prime Coal Bed** -- The Tax Commissioner shall determine the prime coal bed at a location as follows:

- ▶ The stratigraphically-highest coal bed which is also the thickest of all coal beds greater than or equal to 28 inches thickness; and
- ▶ which has been or is currently being mined within the general area of the subject location; and
- ▶ which contains sufficient tonnage to realistically support mining

If the property is too small (less than or equal to 10 acres) to specifically estimate a prime coal bed, then the prime coal bed will be considered to be the prime coal bed of the general area, as determined by the procedure referenced above.

4.2.3.17 **Reserve Coal Bed Valuation Factors** -- The Tax Commissioner shall determine a valuation factor for each coal bed at a location as follows:

4.2.3.17.a **Market interest factor** -- The Tax Commissioner shall assign a relative market interest factor based upon market transaction GIS maps as follows:

- ◆ 0-4 transactions per 30 square miles factor of 80
- ◆ >4-8 transactions per 30 square miles factor of 40
- ◆ >8-12 transactions per 30 square miles factor of 20

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- ◆ >12 transactions per 30 square miles factor of 0

4.2.3.17.b **Market mineability factor** -- The Tax Commissioner shall assign a market mineability factor based upon history of mining of each coal bed as follows:

- ◆ no record of mining the coal bed (10 mile radius).....factor of 80
- ◆ mining of coal bed in area (10 mile radius) only between 1974 and 1983..
. factor of 40
- ◆ mining of coal bed in area (10 mile radius) prior to 1974 and continuing to present factor of 20

4.2.3.17.c **Prime Coal Bed factor** -- The Tax commissioner shall assign a prime coal bed factor to each coal bed occurring on a property as follows:

- ◆ if a coal bed does not receive a prime coal bed designation
. factor of 80
- ◆ if a coal bed receives prime coal bed designation . . . factor of 20

4.2.3.17.d **Environmental factor** -- The Tax Commissioner shall assign an environmental factor to each coal bed occurring on the property as follows:

- ◆ identified environmental problem which would significantly preclude mining factor of 80
- ◆ identified environmental problem which would significantly impede mining factor of 40
- ◆ identified environmental problem which may affect mining
. factor of 20
- ◆ no identified environmental problem affecting mining at a location
. factor of 0

4.2.3.17.e **Use conflict factor** -- The Tax Commissioner shall assign a use conflict factor for each coal bed occurring on a property as follows:

- ◆ more than 10 wells per square mile factor of 80
- ◆ between 5 and 10 wells per square mile factor of 40

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- ◆ less than 5 wells per square mile factor of 0

4.2.3.17.f **Volatility factor** -- The Tax Commissioner shall assign a volatility factor based on the volatility content (using the coal bed characteristics GIS maps and data files) for each coal bed occurring on the property as follows:

- ◆ volatility less than or equal to 17% factor of 80
- ◆ volatility greater than 17% factor of 0

4.2.3.17.g **Coal bed index factor** -- This factor will be assigned to each coal bed and expressed as the sum of all the factors referenced above, divided by three and rounded to the nearest value of 20, 40 or 80. This factor will be used as the exponent "t" for each coal bed, in the present worth formula as described below.

4.2.3.18 **Valuation of Individual Coal Beds per Individual Reserve Property** -- The factors to be used by the Tax Commissioner to determine the present value per acre of individual coal beds on individual reserve properties are as follows: coal price per million BTU (\$/mmBTU), royalty rate (Roy), BTU and sulfur adjustment factor $[1 \pm (\delta\text{BTU} + \delta\text{S})]$, current market value of one BTU $[(1/(1+I)^{(t+0.5)}) \times (1/10^6)]$, BTU content (BTU), two thousand lbs. per ton (2000), 1800 tons per acre foot (1800), clean coal recovery rate (RR), and thickness in feet (Thk). See Appendix A Formula 6, for the formula used in determining the present value per acre per bed (\$/ac/bed).

A narrative version of this formula is as follows:

The base market location value is the starting point of the valuation. The base market location value for a location will be determined by multiplying the coal price per million Btu for a location (\$/mmBTU) by the royalty rate (Roy) for the location.

A current market location value is then calculated for each coal bed, by multiplying the base market location value by a BTU and sulfur adjustment factor $[1 \pm (\delta\text{BTU} + \delta\text{S})]$ for each coal bed at a location.

The present value of one BTU of each coal bed at a location is then calculated by multiplying the current market location value by $1/\text{million}$ ($1/10^6$), and then multiplying the resulting product by the standard mid year present worth factor calculated as $(1/(1+I)^{(t+0.5)})$ where:

- ◆ the discount rate is "I"
 - ◆ the valuation factor is the exponent "t"
- Yielding the present value per acre of a coal bed on a property.

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The present value per coal bed per property at a location is determined by:

- ▶ multiplying the present value of one btu, by the btu per pound of a coal bed at a location, then
- ▶ multiplying by 2000 pounds per ton, then
- ▶ multiplying by 1800 tons per acre foot, then
- ▶ multiplying by the clean coal recovery rate for the coal bed at the location, and then
- ▶ multiplying by the thickness of the coal bed at the location, and
- ▶ multiplying the present value per acre by the reserve acres of each coal bed at the location

4.2.3.19 **Determination of aggregate value.** -- Aggregate value of all unmined coal in West Virginia (as defined in Section 3 of this rule) shall be determined by multiplying the average coal price by, the average royalty rate by the annual production, divided by the capitalization rate (all as defined in Section 3 of this rule). See Appendix A Formula 7, for the formula used to determine the aggregate value.

4.2.3.20 **Determination of aggregate reserve value** -- The aggregate reserve value shall be determined by subtracting the aggregate active value (as defined in Section 3 of this rule) from the aggregate value as determined above.

4.2.3.21 **Final Valuation Procedures** -- The Tax Commissioner will determine the final value of a coal bed as follows:

- ▶ The sum of all the individual property coal bed values throughout the state is calculated to yield the aggregate reserve index. The aggregate reserve value is then divided by the aggregate reserve index yielding the aggregate ratio.
- ▶ The individual coal bed index is multiplied by the aggregate ratio, yielding the adjusted individual coal bed value.
- ▶ The total value of each individual property is determined by summing all the adjusted individual coal bed values for the property.

4.3 **Valuation of unmineable coal properties.** -- Unmineable coal will be valued under one of the following circumstances:

4.3.1 Parcels in which each and every coal bed is unmineable or where each bed is partially unmineable and the remaining portion is mined out, will be valued at a rate of five dollars (\$5.00) per deed acre.

4.3.2 Parcels in which an acre or more of unmineable coal coexists with mineable coal in any bed, will be valued at a rate of five dollars

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(\$5.00) times the amount of unmineable acreage in the bed containing the least amount of unmineable acreage.

4.4 Valuation of mined-out coal properties. Mined-out coal property will be valued under one of the following circumstances:

4.4.1 Parcels in which each and every coal bed is completely mined-out, will be valued at a rate of one dollar (\$1.00) per deed acre.

4.4.2 Parcels in which an acre or more of mined-out coal coexists with mineable coal in any bed, will be valued at a rate of one dollar (\$1.00) times the amount of mined-out acreage in the bed containing the least amount of mined-out acreage.

4.5 Valuation of barren coal properties. Barren coal properties will be valued under one of the following circumstances:

4.5.1 Parcels in which each and every coal bed is completely barren will be valued at a rate of one dollar (\$1.00) per deed acre.

4.5.2 Parcels in which an acre or more of barren coal coexists with mineable coal in any bed, will be valued at a rate of one dollar (\$1.00) times the amount of barren acreage in the bed containing the least amount of barren acreage.

4.6 Total coal appraisal. -- The total coal appraisal for any coal parcel is the sum of the value for all active acres, all reserve acres and specific categories for unmineable, mined-out, and barren acreage. The total amount of coal acres valued for any parcel shall not be less than the amount of deed acres.

4.7 Leasehold interests. -- This rule generally attributes the value of coal to the owner of the coal property. In those circumstances where the owner of the property is subject to a lease requiring the owner to permit mining at royalty rates substantially below current market rates, the owner may petition the Tax Commissioner to attribute a portion of the value of the coal determined by this rule to the leaseholder.

4.8 Farm Properties. -- The coal rights, that are part of a "fee" estate where the use of the surface has qualified for farm use appraisal, will be valued as described in Title 110, Series 1A, Valuation of Farmland and Structures situated thereon for Ad Valorem Property Tax Purposes.

4.9 Property reports. -- On or before September 1st of each year the producer will be required to file an Annual Appraisal Report for Production of Coal with the Tax Commissioner with acknowledgement to the coal owner(s) and the county assessor(s) of the county(s) wherein the mine is located. On or before September 16th of each year, the coal owner of any property that is

part of a permitted mining operation under lease will be required to file an Annual Appraisal Return for Reserve Mineral Properties with the Tax Commissioner. Owners of other coal properties may file an Annual Appraisal Return for Reserve Mineral Properties, on or before September 16th, with the Tax Commissioner; otherwise such properties will be valued using the best available information.

4.10 Confidentiality -- All information provided by or on behalf of a natural resources property owner or by or on behalf of an owner of an interest in natural resources property to any state or county representative for use in the valuation or assessment of natural resources property or for use in the development or maintenance of a legislatively funded mineral mapping or geologic information system shall be confidential. Such information shall be exempt from disclosure under provisions of West Virginia Code section four [§ 29B-1-4], article one of chapter twenty-nine-b, and shall be kept, held, and maintained confidential except to the extent such information is needed by the state tax commissioner to defend an appraisal challenged by the owner or lessee of the natural resources property subject to the appraisal: Provided, That this section may not be construed to prohibit publication or release of information generated as part of the minerals mapping or geologic information system, whether in the form of aggregated statistics, maps, articles, reports, professional talks, or otherwise presented in accordance with generally accepted practices and in a manner so as to preclude the identification or determination of information about particular property owners.

APPENDIX A

Formula 1

$$\text{Annual Acres Mined} = \frac{\text{Annual Production}}{\text{Ave. Thickness X 1800 X Clean coal recovery rate}}$$

Formula 2

$$1800 \text{ tons/ac.ft.} = (62.4 \text{ lbs.water/ft}^3) \times (1.32 \text{ lbs.coal/1 lb.water}) \times (43,560 \text{ ft}^2/\text{acre}) \times (1\text{Thk}) \\ 2000 \text{ lbs./ton}$$

WHERE: Thk = 1 foot thickness

Formula 3

$$$/\text{ac} = \frac{[(\text{Thk}) \times (1800) \times (\text{RR}) \times (\text{SRoy}) \times (\text{SCM}) \times (\text{M})] + [(\text{Thk}) \times (1800) \times (\text{RR}) \times (\text{MRoy}) \times (\text{MCM}) \times (\text{M})]}{\text{ML}}$$

Where: \$/ac = appraisal rate per acre

Thk = coal thickness in feet

1800 = 1800 tons per acre foot

RR = clean coal recovery rate

SRoy = steam coal royalty rate

SCM = decimal representing percent of coal sold to steam market

M = net present value multiplier

Thk = coal thickness in feet

MRoy = Metallurgical coal royalty rate

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MCM = decimal representing percent coal sold to metallurgical market
ML = mine life in years

Formula 4

$$\text{VAMP} = (\text{AAM}) \times (\text{ML}) \times (\$/\text{ac})$$

Where: VAMP = value of active mining portion
AAM = annual acres mined
ML = mine life in years
\$/ac = value per active acre

Formula 5

$$\text{tons} = (\text{Thk}) \times (\text{ac.}) \times (1800) \times (\text{RR})$$

Where: tons = Reserve Property Coal Quantity
Thk = Thickness in feet of a coal bed
ac. = areal extent of coal bed
1800 = 1800 tons per acre foot
RR = clean coal recovery rate

Formula 6

$$\$/\text{ac}/\text{bed} = (\$/\text{mmBTU}) \times (\text{Roy}) \times [1 \pm (\delta\text{BTU} + \delta\text{S})] \times \left[\frac{1}{(1+I)^{t+0.5}} \right] \times (1/10^6) \times (\text{BTU}) \times (2000) \times (1800) \times (\text{RR}) \times (\text{Thk})$$

Where: \$/ac/bed = present value per acre of an individual coal bed on an individual property
\$/mBTU = coal price (FOB-source) per million BTU
Roy = average royalty rate
[1 ± (δBTU + δS)] = BTU and sulfur adjustment factor
(1/(1 + I)^{t+0.5}) = standard mid-year present worth factor
(1/10⁶) = 1 divided by 1,000,000
BTU = BTU content of one pound of dry coal by coal bed by location
2000 = two thousand lbs. per ton
1800 = 1800 tons per acre foot
RR = clean coal recovery rate
Thk = coal bed thickness in feet

Formula 7

$$\text{Aggregate value} = \frac{(\text{Ave. Coal price}) \times (\text{Ave. Royalty rate}) \times (\text{Annual production})}{\text{Capitalization rate}}$$