

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY**

**FACT SHEET
FOR FINAL PERMIT
UNDER 45 C.S.R. 30 (TITLE V- CLEAN AIR ACT)**

R30-08100015-1996

APPLICANT:

08100015
White Mountain Mining Company, LLC
Affinity Mine
P.O.Box 2594, 130 Brookshire Lane
Beckley, West Virginia 25802

FACILITY LOCATION:

Midway, Raleigh County
UTM Coordinates are ZONE: 17 EASTING: 480.00 km NORTHING: 4713.50 km

FACILITY DESCRIPTION:

White Mountain Mining Company, LLC's Affinity Mine operate a 550 tons per hour coal preparation plant. The facility has been idle since 1985. This idle facility has been maintained very well so that it can be started with low expenses. The facility has the potential to operate seven (7) days per week, twenty- four (24) hours per day and fifty-two (52) weeks per year.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION:

None

INSIGNIFICANT ACTIVITIES:

The following is a list of all insignificant emission units or activities which may be operated at this facility: C.S.R. 45-30-3.2.d

1. Air compressors and pneumatically operated equipment, including hand tools.
2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumers, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, division supplies and supplies to maintain copying equipment.
4. Bathroom/toilet vent emissions.
5. Batteries and battery charging stations, except at battery manufacturing plants.
6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant

(depending on the applicable SIP) or be grouped together for purposes of description.

7. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
8. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
9. Combustion units designed and used exclusively for comfort heating that used liquid petroleum gas or natural gas as fuel.
10. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
11. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
12. Emergency road flares.
13. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
15. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
16. Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP.
17. Fire suppression systems.
18. Firefighting equipment and the equipment used to train firefighters.
19. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
20. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
21. Indoor or outdoor kerosene heaters.
22. Internal combustion engines used for landscaping purposes.
23. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

24. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must get a permit if otherwise requested.)
25. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
26. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
27. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
28. Routine calibration and maintenance of laboratory equipment or other analytical instruments.
29. Space heaters operating by direct heat transfer.
30. Steam cleaning operations.
31. Steam leaks.
32. Steam vents and safety relief valves.
33. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
34. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
35. Tobacco smoking rooms and areas.
36. Vents from continuous emissions monitors and other analyzers.

EMISSIONS SUMMARY:

PLANT WIDE EMISSIONS SUMMARY [TONS PER YEAR]	
CRITERIA POLLUTANTS	POTENTIAL EMISSIONS
Carbon Monoxide (CO)	1.92 TPY
Nitrogen Oxides (NO _x)	196.23 TPY
Particulate Matter (PM)	73.37 TPY
Particulate Matter (PM ₁₀)	36.68 TPY
Sulfur Dioxide (SO ₂)	180.81 TPY
Volatile Organic Compounds (VOC)	140.16 TPY

TITLE V PROGRAM APPLICABILITY BASIS:

This facility has the potential to emit 196.23 tons per year of Nox, 140.16 tons per year of VOC and 180.81 tons per year of SO₂. Due to this facility's potential to emit over 100 tons per year of these pollutants, White Mountain Mining Company, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45 C.S.R. 30.

This facility has not operated since 1985.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Regulations for the purposes of Title V of the Federal Clean Air Act (45 C.S.R. 30), and underlying applicable requirements in other state and federal rules. Applicable requirement means all of the following as they apply to emission units in a Title V source:

- a. Any standard or other requirement provided for in the State Implementation Plan approved by the United States Environmental Protection Agency (USEPA) or promulgated by USEPA through rulemaking under Title I of the Clean Air Act that implements the relevant requirements of the Act, including any revisions to that State Implementation Plan;
- b. Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under Title I, including parts C and D, of the Clean Air Act, including any permits issued under 45 C.S.R. 13, 45 C.S.R. 14, 45 C.S.R. 15, and 45 C.S.R. 19;

- c. Any standard or other requirement under 111 of the Clean Air Act, including 111(d);
- d. Any standard or other requirements under 112 of the Clean Air Act, including any requirement concerning accident prevention under 112(r)(7) of the Clean Air Act, but not including the contents of any risk management plan required under 112 (r) of the Clean Air Act;
- e. Any standard or other requirement of the acid deposition control program under Title IV of the Clean Air Act or the regulations promulgated thereunder;
- f. Any requirements established pursuant to 504(b) or 114(a)(3) of the Clean Air Act;
- g. Any standard or other requirement governing solid waste incineration under 129 of the Clean Air Act;
- h. Any standard or other requirement for consumer and commercial products under 183(c) of the Clean Air Act;
- I. Any standard or other requirement for tank vessels under 183(f) of the Clean Air Act;
- j. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Clean Air Act, unless the Secretary determines that such requirements need not be contained in a Title V permit pursuant to an exemption by USEPA;
- k. Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Clean Air Act, but only as it would apply to temporary sources permitted pursuant to 504(e) of the Clean Air Act;
- l. Any emissions cap and related requirements established for the source by agreement with the Secretary and USEPA or otherwise applicable under the rules implemented by the Secretary; and
- m. Any requirement imposed pursuant to the provisions of 45 C.S.R. 27 or any other State-only requirement for State enforceable purposes only.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45 C.S.R. 30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the state but is not federally-enforceable is identified in the draft Title V permit as such.

This facility has been found to be subject to the requirement set forth in items "a" and "c" above, specifically including the following applicable regulations:

Federal and State: 45 C.S.R. 6 - Open burning prohibited
 45 C.S.R. 11 - Standby plans for emergency episodes

WV Code 22-5-4(14) - The Secretary can request any pertinent information such as annual emission inventory reporting

45 C.S.R. 30 - Operating permit requirement

40 C.F.R. 61 - Asbestos inspection and removal

45 C.S.R. 5 - Control of particulate matter from coal preparation plants

45 C.S.R. 10 - Prevent and Control air pollution from the emission of sulfur oxides

State Only:

45 C.S.R. 4 - No objectionable odors

NON-APPLICABILITY DETERMINATIONS:

The following requirements have been determined not to be applicable to the subject facility due to the following:

CSR 45-10-4.1.e.
(August 31, 2000)

The thermal dryer's potential to emit sulfur oxides is greater than 500 pounds per year.

CSR 45-10-3.08.(d)
(SIP approved version)

The thermal dryer is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.

REQUEST FOR VARIANCES OR ALTERNATIVES:

None

DETERMINATIONS AND JUSTIFICATIONS:

a. 45CSR5 Control of Particulate Matter from Coal Preparation Plants.

Stockpiles, haulroads, and vehicular activity are exempted from opacity periodic monitoring. Under 45CSR5, all coal preparation plants and coal handling operations are required to be equipped with a fugitive dust control system as such the opacity standard applies facility-wide; however, as a practical matter emissions from stockpile wind erosion, haulroads, and vehicular activity are exempted from the requirement to periodically monitor opacity because of the nature of the emissions occurring over such a large area. This exemption does not apply to load-in or loadout from the stockpiles. The facility does have the duty to minimize dust generation and atmospheric entrainment from stockpiles, haulroads, and vehicular activity.

b. Periodic monitoring for particulate matter.

The periodic monitoring approach requires annual 40 CFR 60, Appendix A, Method 9 visible emission evaluations (Method 9 evaluation) for each emission unit subject to a visible emission requirement. If the results of such evaluations indicate that visible emissions are in excess of 50 percent of an allowable visible emission requirement for a given unit, a Method 9 evaluation will be conducted at least every 14 days for such unit. After three consecutive Method 9 evaluations indicate that visible emissions are at or below 50 percent of the applicable visible emissions requirement, annual Method 9 evaluations may resume.

The permittee is also required to conduct weekly 40 CFR 60, Appendix A, Method 22 visible emissions observations (Method 22 observations). If during these observations or at any other time, visible emissions appear to exceed 50 percent of the allowable visible emissions requirement, a Method 9 evaluation must be conducted within one month unless corrective action is taken and recorded. The permittee is required to keep appropriate records of all evaluations, observations, and corrective actions.

Based on the large number of equipment subject to the opacity standard (i.e. all coal processing, conveying, storage, transfer and loading equipment and associated fugitive dust control systems); the requirement for all coal preparation plants and coal handling operations to install, inspect and maintain fugitive dust control systems; and EPA's approval of similar provisions for other coal preparation plants, WVDAQ believes that the periodic monitoring approach for this facility is appropriate.

c. 45CSR5 Control of Particulate Emission from Coal Thermal Drying Operations.

The Affinity thermal dryer installed on January 1, 1972 has a volumetric flow rate less than 150,000 cubic feet per minute and therefore may only emit 0.0825 grains per cubic foot or less. For monitoring purposes the owner must install continuous monitoring devices to measure temperature, pressure loss through the venturi constriction of the scrubber, and the water supply pressure to the scrubber. The rationale for the monitoring devices is to insure proper combustion efficiency, correct pressure drop through the venturi constriction for maximum efficiency of particulate capture, and insure the scrubber sprays are not plugging.

Initial stack testing will establish instrument operating range parameters in which the thermal dryer will be operated to provide a reasonable assurance that the thermal dryer unit is in compliance with opacity and particulate loading limits. The following parameters will be recorded during the compliance test:

- a. Opacity readings on the exhaust stack following the procedures of Method 9;
- b. Amount of coal burned and the amount of coal dried;
- c. Coal drying temperature and residence time in the dryer;
- d. Temperature of the gas stream at the exit of the thermal dryer;

- e. Flow rate through the dryer and converted to dry standard cubic feet;
- f. Water pressure to the control equipment; and
- g. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the control equipment.

By recording “a” above, compliance with opacity can be obtained using an approved EPA Method. By recording “b”, “c”, “d”, and “e” above, the loading of the thermal dryer can be determined in order to establish operating parameter ranges. By recording “f” and “g” above, baseline operating conditions can be established to ensure efficiency of the control equipment.

d. 45CSR10 Control Limits of Sulfur Dioxide from Coal Preparation Plants.

It was determined through the agency that dryers are defined as manufacturing process source operations and not as “fuel burning units” within the definition and intent of Regulation 10. With this rule interpretation, thermal dryers must comply with Regulation 10 Section 4.1. To show compliance with 45CSR10.4.1., the company shall conduct fuel sampling analysis of the coal on a monthly basis. Fuel sampling is a reasonable way of testing for sulfur content and is an acceptable testing method.

The thermal dryer at this facility is “stoker fired” and fuel usage is not easily measured. Therefore, by calculating SO₂ emissions using the maximum design heat input, the minimum gas flow rate in the stack, and actual sulfur content and actual Btu value of the sampled coal, compliance can be ensured at lower heat inputs and/or higher stack gas flow rates.

COMMENT PERIOD:

Beginning Date: October 4, 2001
Ending Date: November 5, 2001

All written comments should be addressed to the following individual and division:

U.K.Bachhawat
Title V Permit Writer
WV Department of Environmental Protection
Division of Air Quality
7012 MacCorkle Avenue, SE
Charleston, WV 25304

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing if no public hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a

hearing if he concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

POINT OF CONTACT:

U.K.Bachhawat
Title V Work Group
WV Department of Environmental Protection
Division of Air Quality
7012 MacCorkle Avenue, SE
Charleston, WV 25304
Phone: (304) 926-3727 Fax: (304) 926-3637

Attachment A

The following table is a comparison of Regulation 13 permit language and the corresponding Title V permit language:

Reg 13 General Requirement	Title V General Condition
<p>In accordance with 45CSR30 – “Requirements for Operating Permits,” enclosed with this permit is a Certified Emissions Statement registration form. Please complete this form and return it to the West Virginia Division of Environmental Protection, Division of Air Quality (DAQ) along with the correct operating fee within thirty (30) days. If you have already submitted a Certified Emissions Statement to the DAQ please disregard this requirement.</p> <p style="text-align: center;">- or -</p> <p>In accordance with 45CSR30 – “Operating Permit Program”, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.</p> <p style="text-align: center;">- or -</p> <p>In accordance with 45CSR30 - "Operating Permit Program", enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this division no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.</p>	<p>Included in Title V - Section II.E. CERTIFIED EMISSIONS STATEMENT AND FEES The permittee shall file a certified annual emission statement and pay fees on July 1 of each year in accordance with C.S.R. 45-30-8. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.</p>
<p>Possession of this permit does not relieve any person of the responsibility of complying with any and all applicable rules or regulations of the Commission or any other governmental agency.</p> <p style="text-align: center;">- or -</p> <p>Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.</p>	<p>Included in Title V - Section II.A.11. This permit does not convey permission to treat, store, or dispose of any materials determined to be hazardous wastes as per 45 C.S.R. 25. Additionally, it does not relieve the permittee herein of the responsibility to apply for and obtain all other required permits, licenses, and/or approvals from the Division of Air Quality as well as other local, state, and federal agencies which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.</p>

Reg 13 General Requirement	Title V General Condition
<p>The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.</p>	<p>Included in Title V - Section II.L. SEVERABILITY The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. C.S.R. 45-30-5.1.e.</p>
<p>On or before July 1st of each calendar year, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emissions inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.</p>	<p>Included in Title V - Section III.B.2.a.v. - Specific Conditions The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the Secretary's request. W.V. Code 22-5-4(a)(14). (effective date August 4, 1995). (<i>Facility-Wide Applicability</i>).</p>
<p>Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.</p>	<p>Included in Title V - Section III.I.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code 22-5-1 <u>et seq.</u> and the Federal Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.</p>
<p>This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.</p>	<p>Included in Title V - Section II.F.4. Permit Transfers. C.S.R. 45-30-6.4.a.4.</p> <p>A change in ownership or operational control of the permitted source may utilize the procedures for administrative permit amendments if the following requirements are met:</p> <ol style="list-style-type: none"> a. The Secretary determines no other changes in the permit are required. b. A written agreement containing the following information is submitted to the Secretary: <ol style="list-style-type: none"> i. The specific date for transfer of permit responsibility; ii. Coverage; and iii. Liability between the current and the new permittee. c. The permittee shall transfer any existing permits under 45 C.S.R. 13, 45 C.S.R. 14, and 45 C.S.R. 19 simultaneously in accordance with the requirements under the applicable rule.

Reg 13 General Requirement	Title V General Condition
<p>At such reasonable time(s) as the Secretary may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Secretary may specify or approve and shall be filed in a manner acceptable to the Secretary. The Secretary, or his duly authorized representative, may at his option witness or conduct such test. Should the Secretary exercise his option to conduct such test(s), the operator shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.</p>	<p>Included in Title V - Section III.B.1.a.v.</p> <p>As per provisions set forth in Section III of this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in Section III of this permit or as otherwise approved or specified by the Secretary in accordance with the following:</p> <ul style="list-style-type: none"> (a) For emissions for which there are no applicable requirements within the permit, the secretary for cause may require testing or monitoring to determine emissions of air pollutants or emissions form sources. (b) The Secretary may, on a source-specific basis, approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with C.S.R . 45-30-6.4. or C.S.R 45-30-6.5 as applicable. (c) The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section III.B.1.a.v.(b). If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with C.S.R . 45-30-6.4. or C.S.R 45-30-6.5 as applicable. <p>All periodic tests to determine mass emissions from or air pollutant concentrations in discharge stacks and such other tests as specified in Section III of this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests <u>will</u> fully conform to a referenced protocol previously approved by the Secretary. WV Code.22-5-4(a)(15), C.S.R 45-5-10.1-10.3 (Effective date May 1, 1995). (<i>Facility-Wide Applicability</i>). Compliance with this streamlined limit assures compliance with the corresponding provisions of the SIP-approved rule.</p>