

**TITLE V RENEWAL APPLICATION
FOR
MARFORK PREPARATION PLANT
PERMIT NO. R30-08100078-2006**

Prepared for:

Marfork Coal Company
PO Box 457
Whitesville, West Virginia 25209

Prepared by:

Potesta & Associates, Inc.
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Project No. 0101-10-0402

October 2010

 **POTESTA**

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GENERAL FORMS



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.wvdep.org/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section I: General Information

1. Name of Applicant (As registered with the WV Secretary of State's Office): Marfork Coal Company
2. Facility Name or Location: Marfork Preparation Plant
3. DAQ Plant ID No.: 0 8 1 — 0 0 0 7 8
4. Federal Employer ID No. (FEIN): 5 5 0 7 2 3 5 3 9

5. Permit Application Type:
[] Initial Permit When did operations commence? 05/08/2001
[X] Permit Renewal What is the expiration date of the existing permit? 05/08/2006
[X] Update to Initial/Renewal Permit Application

6. Type of Business Entity:
[X] Corporation [] Governmental Agency
[] Partnership [] Limited Partnership
7. Is the Applicant the:
[] Owner [X] Operator [] Both
8. Number of onsite employees: 76
If the Applicant is not both the owner and operator, please provide the name and address of the other party.
Massey Energy Co.
PO Box 26765
Richmond, VA 23261-6765

9. Governmental Code:
[X] Privately owned and operated; 0 [] County government owned and operated; 3
[] Federally owned and operated; 1 [] Municipality government owned and operated; 4
[] State government owned and operated; 2 [] District government owned and operated; 5

10. Business Confidentiality Claims
Does this application include confidential information (per 45CSR31)? [] Yes [] No
If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.

11. Mailing Address		
Street or P.O. Box: PO Box 457		
City: Whitesville	State: WV	Zip: 25209
Telephone Number: (304) 854-3521	Fax Number: (304) 854-3528	

12. Facility Location		
Street: Marfork Road, Route 3/1	City: Pettus	County: Raleigh
UTM Easting: 453.70 km	UTM Northing: 4199.70 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Traveling south on WV State Route 3, pass through Whitesville, drive approximately two (2) miles, turn left onto County Route 3/1, and the plant is located approximately 1.1 miles east.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Virginia Kentucky	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Jamie Ferguson		Title: President
Street or P.O. Box: PO Box 457		
City: Whitesville	State: WV	Zip: 25209
Telephone Number: (304) 854-3521	Fax Number: (304) 854-3528	
E-mail address: chris.blanchard@masseyenergyco.com		
Environmental Contact: Adam Radford		Title: Engineer
Street or P.O. Box: PO Box 457		
City: Whitesville	State: WV	Zip: 25209
Telephone Number: (304) 854-3596	Fax Number: (304) 854-3528	
E-mail address: adam.radford@masseyenergyco.com		
Application Preparer: Patrick Ward		Title: Senior Engineer
Company: Potesta & Associates, Inc.		
Street or P.O. Box: 7012 MacCorkle Avenue, SE		
City: Charleston	State: WV	Zip: 25304
Telephone Number: (304) 342-1400	Fax Number: (304) 343-9031	
E-mail address: peward@potesta.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Coal Preparation Plant	Cleaned/Processed Coal	212111	1221

Provide a general description of operations.

The Marfork Preparation Plant has the ability to screen, crush/size, wash, store, and load in/out coal.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

The non-applicability determination contained in the existing permit remains unchanged.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR§6-3.1.	3.1.1.	Open Burning	The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
2	45CSR§6-3.2.	3.1.2.	Open Burning Exemptions	The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
3	40CFR61 and 45CSR15	3.1.3.	Asbestos	The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health -Environmental Health.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	Odor	No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
5	45CSR§11-5.2.	3.1.5.	Standby Plan for Reducing Emissions	When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
6	WV Code §22-5-4(a)(14)	3.1.6.	Emission Inventory	The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
7	40CFR82 Subpart F	3.1.7.	Ozone-depleting Substances	For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B: a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156. b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158. c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.
8	40CFR68	3.1.8.	Risk Management Plan	Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
9	45CSR§5-3.4; 45CSR13, R13-1967C, B.1, B.2	3.1.9.	Opacity	No person shall cause, suffer, allow or permit emission of particulate matter into the open air from any fugitive dust control system which is twenty percent (20%) opacity or greater.
10	45CSR§5-6.1; 45CSR13, R13-1967C, B.1, B.2	3.1.10.	Fugitive Dust Control	No person shall cause, suffer, allow or permit a coal preparation plant or handling operation to operate that is not equipped with a fugitive dust control system. This system shall be operated and maintained in such a manner as to minimize the emission of particulate matter into the open air.

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
11	45CSR§5-6.2; 45CSR13, R13-1967C, B.1., B.2.	3.1.11.	Dust Control, Good Operating Practices	The owner or operator of a coal preparation plant or handling operation shall maintain dust control of the premises and owned, leased, or controlled access roads by paving, or other suitable measures. Good operating practices shall be observed in relation to stockpiling, car loading, breaking, screening, and general maintenance to minimize dust generation and atmospheric entrainment.
12	45CSR16, 40 CFR § 60.252 (c), 45CSR13, R13-1967C, B.1., B.3.	3.1.12.	Opacity	On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, an owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart Y shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.
13	45CSR16; 40 CFR § 60.11(d); 45CSR13, R13-1967C, B.1.,B.3.	3.1.13.	Good Air Pollution Control Practice	At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
14	45CSR§5-7.1., Refuse Storage Piles	3.1.14.	Coal Refuse	In order to prevent and control air pollution from coal refuse disposal areas, the operation of coal refuse disposal areas shall be conducted in accordance with the standards established by 45CSR§5-7.
15	45CSR§5-7.2., Refuse Storage Piles	3.1.15.	Coal Refuse	Coal refuse is not to be deposited on any coal refuse disposal area unless the coal refuse is deposited in such a manner as to minimize the possibility of ignition of the coal refuse.
16	45CSR§5-7.3., Refuse Storage Piles	3.1.16.	Coal Refuse	Coal refuse disposal areas shall not be so located with respect to mine openings, tipples or other mine buildings, unprotected coal outcrops or steam lines, that these external factors will contribute to the ignition of the coal refuse on such coal refuse disposal areas.
17	45CSR§5-7.4., Refuse Storage Piles	3.1.17.	Coal Refuse	Vegetation and combustible materials shall not be left on the ground at the site where a coal refuse pile is to be established, unless it is rendered inert before coal refuse is deposited on such site.
18	45CSR§5-7.5., Refuse Storage Piles	3.1.18.	Coal Refuse	Coal refuse shall not be dumped or deposited on a coal refuse pile known to be burning, except for the purpose of controlling the fire or where the additional coal refuse will not tend to ignite or where such dumping will not result in statutory air pollution.
19	45CSR§5-7.6., Refuse Storage Piles	3.1.19.	Coal Refuse	Materials with low ignition points used in the production or preparation of coal, including, but not limited to, wood, brattice cloth, waste paper, rags, oil and grease, shall not be deposited on any coal refuse disposal area or in such proximity as will reasonably contribute to the ignition of a coal refuse disposal area.
20	45CSR§5-7.7., Refuse Storage Piles	3.1.20.	Coal Refuse	Garbage, trash, household refuse and like materials shall not be deposited on or near any coal refuse disposal area.
21	45CSR§5-7.8., Refuse Storage Piles	3.1.21.	Coal Refuse	The deliberate ignition of a coal refuse disposal area or the ignition of any materials on such an area by any person or persons is prohibited.

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
22	45CSR§5-8.3., Refuse Storage Piles	3.1.22.	Coal Refuse	With respect to all burning coal refuse disposal areas, the person responsible for the coal refuse disposal areas or the land on which the coal refuse disposal areas are located shall use due diligence to control air pollution from the coal refuse disposal areas. Consistent with the declaration of policy and purpose set forth in W. Va. Code § 22-5-1, the Director shall determine what constitutes due diligence with respect to each such burning coal refuse disposal area. When a study of any burning coal refuse disposal area by the Director establishes that air pollution exists or may be created, the person responsible for the coal refuse disposal area or the land on which the coal refuse disposal area is located shall submit to the Director a report setting forth satisfactory methods and procedures to eliminate, prevent or reduce the air pollution. The report shall be submitted within such time as the Director shall specify. The report for the elimination, prevention or reduction of air pollution shall contain sufficient information, including, completion dates, to establish that the corrective measures can be executed with due diligence. If approved by the Director, the corrective measures and completion dates shall be embodied in a consent order issued pursuant to W. Va. Code §§ 22-5-1 et seq. If the report is not submitted as requested or if the Director determines that the methods and procedures set forth in the report are not adequate to reasonably control the air pollution he or she shall issue an order requiring the elimination, prevention or reduction of the air pollution.
23	45CSR13, R13-1967C, A.1., MF-1, MF-2, TB-1, HC-1, LG-1 through LG-6	3.1.23.	Throughput	The Marsh Fork Mine Belt addition shall not transfer more than 12,442,000 tons per year of raw coal to raw coal stockpiles RCOS2, RCOS3, and RCOS4. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
24	45CSR13, R13-1967C, A.2.	3.1.24.	Throughput	The amount of raw coal processed at the permitted facility shall not exceed 2,400 TPH and 20,220,000 TPY, with the exception that the raw coal reclaim conveyor (RCB7) shall not process in excess of 2,500 TPH and 20,220,000 TPY. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
25	45CSR13, R13-1967C, A.3.	3.1.25.	Throughput	The amount of clean coal shipped from the facility shall not exceed 10,500,000 TPY. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
26	45CSR13, R13-1967C, A.4.	3.1.26.	Throughput	The amount of raw coal processed through the direct ship circuit shall not exceed 1,200 TPH and 1,000,000 TPY. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
27	45CSR13, R13-1967C, A.5., RB4A	3.1.27.	Throughput	The amount of material processed through refuse reclaim conveyor RB4A shall not exceed 600 TPH and 1,300,000 TPY. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
28	45CSR13, R13-1967C, A.6.	3.1.28.	Throughput	Synthetic fuel may be stored in the clean coal stockpiles. However, the amount of synthetic fuel shipped by railcar shall not exceed 1,941,120 TPY. Compliance with the yearly throughput limit shall be determined using a rolling yearly total.
29	45CSR13, R13-1967C, A.7.	3.1.29.	Fugitive Dust Control	The fugitive particulate dust control systems as stated in Permit Applications R13-1967C, R13-1967B, R13-1967A, R13-1967, R13-1711 and their supplements, shall be installed, operated and maintained in such a manner so as to minimize the generation and atmospheric entrainment of fugitive particulate emissions. Such measures shall include but not be limited to: a) The permittee shall maintain a three-sided roofed enclosure at all truck dumps. b) The permittee shall maintain and operate, as frequently as necessary, water sprays on all truck dumps. c) The permittee shall maintain and operate a telescopic chute to minimize drop height in loading of railcars. d) The permittee shall maintain a full enclosure at all crushers. The raw coal single deck-scalping screen (S-001) shall be equipped with a partial enclosure and water sprays. e) The permittee shall maintain stacking tubes to minimize the drop height to each raw and clean coal stockpile. f) The permittee shall maintain underpile reclaim feeders for removing coal from all stockpiles.

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
30	45CSR13, R13-1967C, A8.	3.1.30.	Water Truck	The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water, or a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary in order to minimize fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spraybar shall be equipped with commercially available spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated. The pump delivering the water, or solution, shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water, or solution, and at a sufficient pressure.
31	45CSR13, R13-1967C, A.9.	3.1.31.	Throughput	Compliance with all annual throughput limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the amount of coal received, processed, or shipped at any given time for the previous twelve-(12) consecutive calendar months.
32	45CSR16, 40 CFR § 60.254 (b), 45CSR13, R13-1967C, B.1., B.3.	3.1.32.	Particulate Matter	The owner or operator shall determine compliance with the particular matter standards in 40 C.F.R. § 60.252 as follows: (1) 40 C.F.R. Part 60 Appendix A, Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. (2) 40 C.F.R. Part 60 Appendix A, Method 9 and the procedures in 40 C.F.R. § 60.11 shall be used to determine opacity.
33	45CSR13, R13-1967C, C.3.	3.1.33.	Constructed and Operated in Accordance Permit Applications	The permitted facility shall be constructed and operated in accordance with information filed in Permit Applications R13-1967C, R13-1967B, R13-1967A, R13-1967, and R13-1711, and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
34	45CSR16, 40 CFR § 60.7 (a) (1) through (3), 45CSR13, R13-1967C, B.1., B.3.	3.1.34.	Notification	Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows: (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form. (2) [Reserved] (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
35	45CSR§30-5.1.c.	3.2.1.	MRR	The permittee shall conduct monitoring/recordkeeping/reporting as follows [Not required for stockpiles and haulroads: Raw Coal - RCOS1-RCOS4, Limestone/Sand LSOS1, Refuse - RMOS1, and Clean Coal (CCOS1 - CCOS6); Vehicular traffic on Paved haulroads - (PVHR1, PVHR2, and PVHR3), Unpaved haulroads - (UPHR1, UPHR2, and UPHR3)]: a. Visible emissions evaluation shall be conducted for each affected source at least once every consecutive 12-month period in accordance with 40 C.F.R. 60 Appendix A, Method 9. This annual evaluation shall consist of a minimum of 24 consecutive observations for each emission unit. b. Each affected facility with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval determined by conducting 40 C.F.R. 60 Appendix A Method 22-like visible emission checks. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
35	Continued			<p>If visible emissions from any of the affected facility are observed during these weekly observations, or at any other time, that appear to exceed of the allowable visible emission requirement for the affected facility, visible emissions evaluations in accordance with 40 C.F.R. 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. A Method 9 evaluation shall not be if the visible emissions condition is corrected in a timely manner; the affected facility is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.</p> <p>c. If the visible emissions evaluation indicates visible emissions in excess of the allowable visible emissions requirement for a given affected facility, a visible emissions evaluation shall be performed for that unit at least once every consecutive 14-day period in accordance with 40 C.F.R. 60 Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than the allowable visible emissions requirement for the affected facility for 3 consecutive evaluation periods, the emission unit may comply with the visible emissions testing requirements of condition 3.2.1.b. in lieu of those established in this condition.</p> <p>d. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.</p>
36	45CSR§30-5.1.c.	3.2.2.	Fugitive Dust Control Systems	The permittee shall inspect all fugitive dust control systems monthly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and nonscheduled maintenance. Records shall be maintained on site stating any maintenance or corrective actions taken as a result of the monthly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.
37	WV Code § 22-5-4(a)(15) and 45CSR13	3.3.1.	Stack Testing	<p>As per provisions set forth in 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 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 this permit or as otherwise approved or specified by the Secretary in accordance with the following:</p> <p>a. 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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.</p> <p>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 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 3.3.1.a. of this permit.</p> <p>c. All periodic tests to determine mass emission limits from air pollutant concentrations in discharge stacks and such other tests as specified in 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 will fully conform to a referenced protocol previously approved by the Secretary.</p>

Permit Shield

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
38	45CSR16, 40 CFR § 60.11 (b), 45CSR13, R13-1967C, B.1., B.3.	3.3.2.	Opacity	Compliance with opacity standards in this part shall be determined by conducting observations in accordance with 40 C.F.R. Part 60 Appendix A, Method 9, any alternative method that is approved by the Administrator. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6- minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
39	45CSR§30-5.1.c.2.A.	3.4.1.	Monitoring Information	The permittee shall keep records of monitoring information that include the following: a. The date, place as defined in this permit and time of sampling or measurements; b. The date(s) analyses were performed; c. The company or entity that performed the analyses; d. The analytical techniques or methods used; e. The results of the analyses; and f. The operating conditions existing at the time of sampling or measurement.
40	45CSR§30-5.1.c.2.B.	3.4.2.	Retention of Records	The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
41	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
42	45CSR13, R13-1967C, B.6.	3.4.4.	Certified Records	For the purpose of determining compliance with the maximum throughput limits set forth in Sections 3.1.23 through 3.1.28, the permittee shall maintain on site certified daily and monthly records of the following: a. The amount of raw coal input to the facility, which shall include records of throughput on Marsh Fork Mine belt LG-5. b. The amount of clean coal shipped from the facility. c. The amount of raw coal input to the direct ship circuit. d. The amount of refuse material processed through refuse reclaim conveyor RB4A e. The amount of synthetic fuel stored in the clean coal stockpiles. f. Total water usage for dust suppression: i. At fixed spray systems, and ii. By water truck. Example data tracking forms are given as Attachments A, B, and C. Records shall be certified by a "responsible official" and maintained on site for a period of not less than five (5) years and shall be made available to the Director or his or her duly authorized representative upon request
43	45CSR§30-5.1.c.	3.4.5.	Dust Control Records	The permittee shall maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records shall be maintained on site for a period of no less than five (5) years.
44	45CSR§30-5.1.c.	3.4.6.	Throughput and Operation Records	The permittee shall maintain daily records of the coal throughput and the hours of operation. Compliance with the hourly throughput limit shall be demonstrated by dividing the daily throughput by daily hours of operation. The monthly throughput shall be determined by adding all of the daily throughputs for each day of the month. By the fifteenth day of each calendar month, the permittee shall calculate the hourly averaged throughput of the previous calendar month, as well as the monthly throughput. Compliance with all yearly throughput limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of raw coal throughput at any given time for the previous twelve-(12) months. These records shall be maintained on site for a period of no less than five (5) years.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR§6-3.1.	3.1.1.	Open Burning	NA. Facility does not conduct open burning.
2	45CSR§6-3.2.	3.1.2.	Open Burning Exemptions	NA
3	40CFR61 and 45CSR15	3.1.3.	Asbestos	Inspection will occur as required.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	Odor	Recordkeeping of complaints.
5	45CSR§11-5.2.	3.1.5	Standby Plan for Reducing Emissions	When requested.
6	WV Code §22-5-4(a)(14)	3.1.6.	Emission Inventory	Reporting.
7	40CFR82 Subpart F	3.1.7.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
8	40CFR68	3.1.8.	Risk Management Plan	Submission if required.
9	45CSR§5-3.4; 45CSR13, R13-1967C, B.1, B.2	3.1.9.	Opacity	Opacity testing and monitoring will be conducted as required to maintain compliance with the applicable standard.
10	45CSR§5-6.1; 45CSR13, R13-1967C, B.1, B.2	3.1.10.	Fugitive Dust Control	Facility will utilize fugitive dust control systems.
11	45CSR§5-6.2; 45CSR13, R13-1967C, B.1., B.2.	3.1.11.	Dust Control, Good Operating Practices	Dust control will be maintained. Good operating practices will be followed.
12	45CSR16, 40 CFR § 60.252 (c), 45CSR13, R13-1967C, B.1., B.3.	3.1.12.	Opacity	Opacity testing and monitoring will be conducted as required to maintain compliance with the applicable standard.
13	45CSR16; 40 CFR § 60.11(d); 45CSR13, R13-1967C, B.1.,B.3.	3.1.13.	Good Air Pollution Control Practice	Good air pollution control practices will be followed.
14	45CSR§5-7.1., Refuse Storage Piles	3.1.14.	Coal Refuse	Standards established in 45CSR§5-7 will be used.
15	45CSR§5-7.2., Refuse Storage Piles	3.1.15.	Coal Refuse	Facility will use practices to minimize the possibility of refuse ignition.
16	45CSR§5-7.3., Refuse Storage Piles	3.1.16.	Coal Refuse	Facility will use locations to minimize the possibility of refuse ignition.
17	45CSR§5-7.4., Refuse Storage Piles	3.1.17.	Coal Refuse	Refuse site will operate as described.
18	45CSR§5-7.5., Refuse Storage Piles	3.1.18.	Coal Refuse	Refuse site will operate as described.
19	45CSR§5-7.6., Refuse Storage Piles	3.1.19.	Coal Refuse	Refuse site will operate as described.
20	45CSR§5-7.7., Refuse Storage Piles	3.1.20.	Coal Refuse	Refuse site will operate as described.
21	45CSR§5-7.8., Refuse Storage Piles	3.1.21.	Coal Refuse	Refuse site will operate as described.
22	45CSR§5-8.3., Refuse Storage Piles	3.1.22.	Coal Refuse	Due diligence will be used to control air pollution from refuse areas.
23	45CSR13, R13-1967C, A.1., MF-1, MF-2, TB-1, HC-1, LG-1 through LG-6	3.1.23.	Throughput	A rolling yearly total will be calculated and recorded.
24	45CSR13, R13-1967C, A.2.	3.1.24.	Throughput	A rolling yearly total will be calculated and recorded.
25	45CSR13, R13-1967C, A.3.	3.1.25.	Throughput	A rolling yearly total will be calculated and recorded.
26	45CSR13, R13-1967C, A.4.	3.1.26.	Throughput	A rolling yearly total will be calculated and recorded.
27	45CSR13, R13-1967C, A5.,RB4A	3.1.27.	Throughput	A rolling yearly total will be calculated and recorded.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (<i>if any</i>)
R13-1967C	03/14/2005	
R30-08100078-2006	04/05/2006	
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	N/A
Nitrogen Oxides (NO _x)	N/A
Lead (Pb)	N/A
Particulate Matter (PM _{2.5}) ¹	2,047.28 / 501.67
Particulate Matter (PM ₁₀) ¹	4,412.06 / 1,081.31
Total Particulate Matter (TSP)	N/A
Sulfur Dioxide (SO ₂)	N/A
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants ²	Potential Emissions
NONE	
Regulated Pollutants other than Criteria and HAP	Potential Emissions
NONE	

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	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 consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. 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.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. 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.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input checked="" type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. 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 still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. 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.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. 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.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. 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.
<input checked="" type="checkbox"/>	56. 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.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance	
<i>Note: This Certification must be signed by a responsible official. The original, signed in blue ink, must be submitted with the application. Applications without an original signed certification will be considered as incomplete.</i>	
a. Certification of Truth, Accuracy and Completeness	
I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.	
b. Compliance Certification	
Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.	
Responsible official (type or print)	
Name: Jamie Ferguson	Title: President
Responsible official's signature:	
Signature: 	Signature Date: <u>10-4-10</u>
<small>(Must be signed and dated in blue ink)</small>	

Note: Please check all applicable attachments included with this permit application:	
<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.wvdep.org/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

MARFORK COAL COMPANY, INC.

APPOINTMENT OF AUTHORIZED AGENT

KNOW ALL MEN BY THESE PRESENTS, that Marfork Coal Company, Inc., a West Virginia corporation (the "Company"), hereby appoints Edward L. Payne, to be its authorized agent, to sign for and on behalf of the Company on all coal mining related permit applications and other permit-related documents for the Company including permits required by state and/or federal law. This authority shall become effective with the execution of this document.

MARFORK COAL COMPANY, INC.

Benjamin James Ferguson
By: Benjamin James Ferguson
Its: President

Date: 9-24-10

STATE OF West Virginia
CITY/COUNTY OF Raleigh, to wit:

I, Susan Kay Daniel, a Notary Public in and for the state and city/county aforesaid, do hereby certify that Benjamin James Ferguson, as President of Marfork Coal Company, Inc., whose name as such is signed to the foregoing write this 24th day of September, 2010, has signed before me, in my said city/county, acknowledged and said writing.

Given under my hand this 24th day of September, 2010

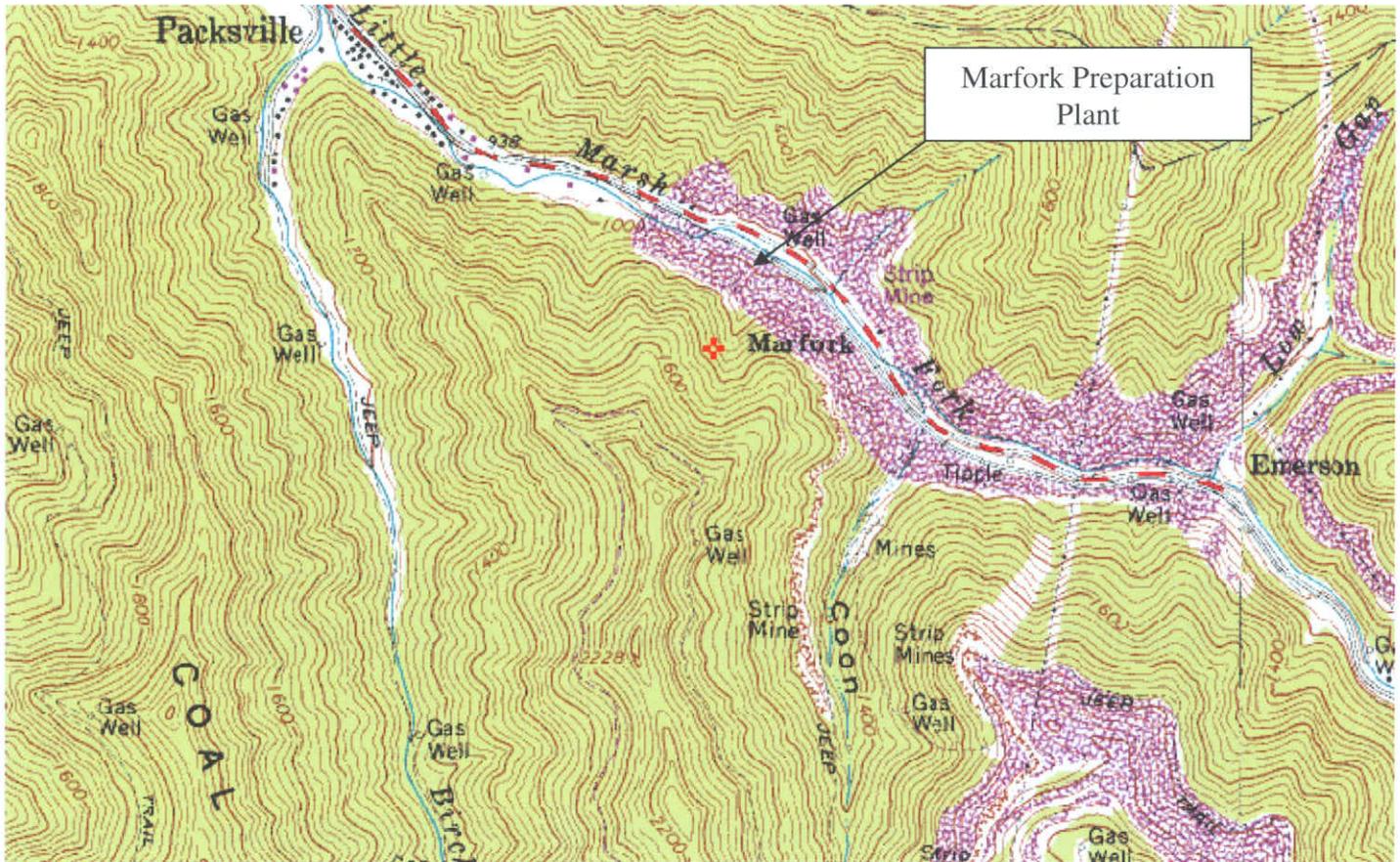
My commission expires: August 11, 2016.

Susan Kay Daniel
NOTARY PUBLIC



ATTACHMENT A

AREA MAP



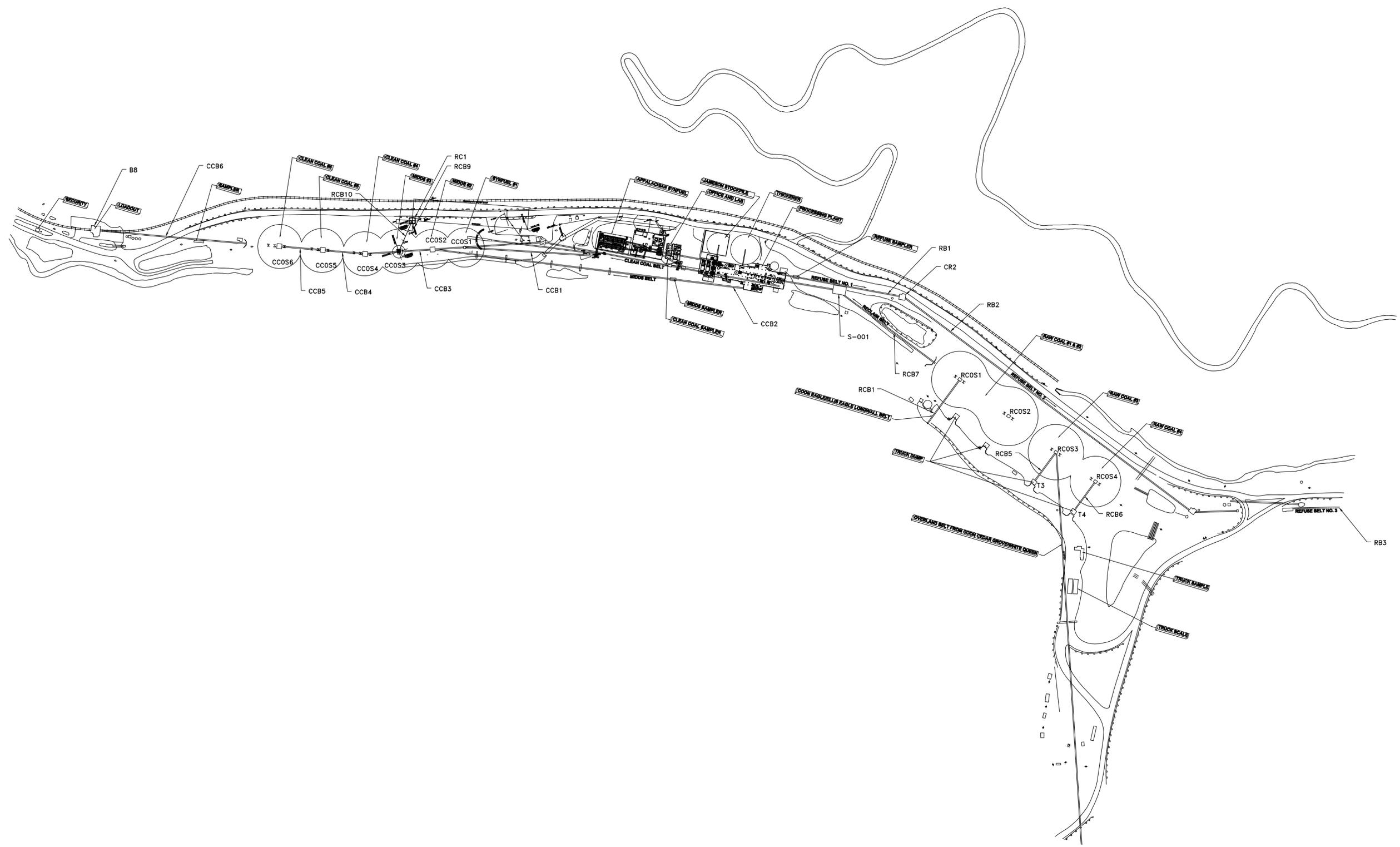
Photocopied from the Whitesville, West Virginia - WV USGS 7.5' Series
Topographic Map 1958, Photo revised 1975, Photo inspected 1983

Potesta & Associates, Inc.

7012 MacCorkle Avenue, SE, Charleston, WV 25304
Phone: (304) 342-1400 Fax: (304) 343-9031
Email: potesta@potesta.com

Marfork Coal Company
Marfork Preparation Plant
County Route 3/1 Pettus, West Virginia
Project No. 0101-10-0402

ATTACHMENT B
PLOT PLAN



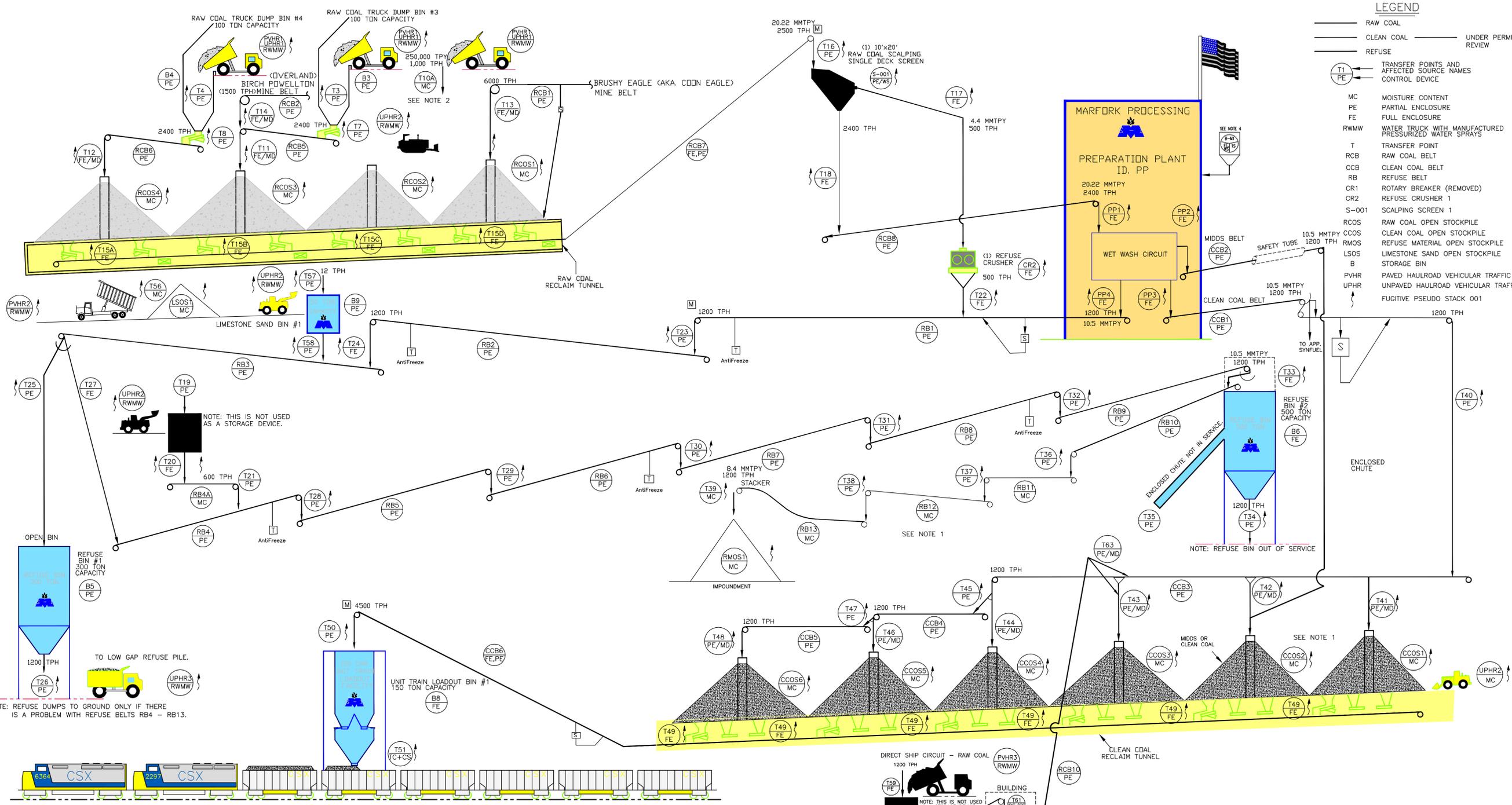
MAPPING REFERENCE:
 BASE DRAWING PROVIDED BY MARFORK COAL COMPANY

File: S:\Marfark\03-054-081-00078\03-054-081-00078.dwg
 Plot Date: 01/27/2006 2:40pm
 Plot Scale: 1" = 200'

ATTACHMENT C
PROCESS FLOW DIAGRAM

LEGEND

- RAW COAL
- CLEAN COAL
- UNDER PERMIT REVIEW
- REFUSE
- T1 TRANSFER POINTS AND AFFECTED SOURCE NAMES CONTROL DEVICE
- MC MOISTURE CONTENT
- PE PARTIAL ENCLOSURE
- FE FULL ENCLOSURE
- RWMW WATER TRUCK WITH MANUFACTURED PRESSURIZED WATER SPRAYS
- T TRANSFER POINT
- RCB RAW COAL BELT
- CCB CLEAN COAL BELT
- RB REFUSE BELT
- CR1 ROTARY BREAKER (REMOVED)
- CR2 REFUSE CRUSHER 1
- S-001 SCALPING SCREEN 1
- RCOS RAW COAL OPEN STOCKPILE
- CCOS CLEAN COAL OPEN STOCKPILE
- RMOS REFUSE MATERIAL OPEN STOCKPILE
- LSOS LIMESTONE SAND OPEN STOCKPILE
- B STORAGE BIN
- PVHR UNPAVED HAULROAD VEHICULAR TRAFFIC
- UPHR UNPAVED HAULROAD VEHICULAR TRAFFIC
- FUGITIVE PSEUDO STACK 001



EQUIPMENT SUMMARY

A.S.N.	DESCRIPTION	MAX. CAPACITY (TPH)	CONTROL
RCB1	DIRECT SHIP CONVEYOR #1	1200	FE
RCB11	DIRECT SHIP CONVEYOR #2	1200	FE
RB4A	REFUSE RECLAIM BELT	600	MC

EQUIPMENT SUMMARY

A.S.N.	DESCRIPTION	MAX. CAPACITY (TPH)	CONTROL
RCB1	BRUSHY EAGLE MINE BELT	6000	FE
RCB2	BIRCH POWELL TON MINE BELT	1500	FE
RCB3	TRUCK DUMP BIN #4 CONVEYOR	2400	FE

STORAGE SUMMARY

A.S.N.	DESCRIPTION	CAPACITY	CONTROL
B3	RAW COAL TRUCK DUMP BIN #3	300	FE
B4	RAW COAL TRUCK DUMP BIN #4	300	FE
B5	REFUSE BIN #1	300	FE

TANKS SUMMARY

A.S.N.	LOCATION	MATERIAL STORED	STORAGE CAPACITY (GALLONS)
1	CLEAN COAL STOCKPILE	DIESEL	2,000
2	CLEAN COAL STOCKPILE	OIL	855
3	UPPER BACKYARD	KEROSENE	550

HAULROAD SUMMARY

A.S.N.	DESCRIPTION	LENGTH (MILES ROUND TRIP)	CONTROL
PVHR1	RAW COAL TRUCKS	1.0	RWMW
PVHR2	LIMESTONE TRUCKS	1.0	RWMW
PVHR3	DIRECT SHIP TRUCKS	1.7	RWMW

- NOTES**
- REFUSE BELTS RB11, RB12, AND RB13 ARE TEMPORARY /MOVEABLE BELTS, WHICH CAN DIRECT REFUSE TO DIFFERENT LOCATION ON RMOS1.
 - DOZER MANAGES RAW COAL STOCKPILES. TRUCKS MAY DUMP OVER HIGHWALL TO RCOS2.
 - THIS FACILITY NO LONGER TRUCKS OUT CLEAN COAL. CLEAN COAL IS LOADED OUT BY TRAIN.
 - MAGNETITE BIN IS VENTED UNDER WATER IN THE HEAVY MEDIA SUMP IN THE PREPARATION PLANT.

DRAWING REFERENCE: BASE DRAWING ENTITLED "MARFORK PROCESSING MATERIAL HANDLING FLOWSHEET, DATED 5/31/97 PROVIDED BY MARFORK COAL COMPANY, WHITESVILLE, WEST VIRGINIA.

ERSG CAD FILE: 02-167-10-PED.DWG

ESRG REVISION NOTES

NO	DATE	DWN	CHKD	APPVD	DESCRIPTION
6	1/28/2002	JFJ	JFJ		ADDED REFUSE RECLAIM SYSTEM AND DIRECT SHIP CIRCUIT. REMOVED ROTARY BREAKER TO REFUSE CRUSHER (CR2).
5	10/10/01	JFJ	JFJ		ADDED SAMPLERS, CC TO SYN FUEL & SCREEN BYPASS. REVISED REFUSE BY TAKING OUT TRANSFER POINT T39 AND REFUSE BELT RB13 MOVED RB10 TO TOP OF B6 AND CHUTE OUT OF SERVICE. CHANGED TYP0 ON T49.
4	2/2/2001	JFJ	JFJ	PIM	ADDED TRANSFER POINTS INSIDE PREPARATION PLANT UPDATE EQUIPMENT SUMMARY. CHANGED SCREEN ID.
3	1/2/2001	JFJ	RLM	RLM	ADDED TRANSFER POINTS INSIDE PREPARATION PLANT UPDATE EQUIPMENT SUMMARY. CHANGED SCREEN ID.
2	10/2/2000	JFJ	RLM	RLM	REMOVE TRUCK DUMP BINS 1 AND 2. ADD NOTE ON B5. EXTEND CLEAN COAL RECLAIM TUNNEL. REMOVE CLEAN COAL TRUCK LOADOUT BIN 1. RELOCATE CCB2 OUTPUT.
1	9/7/2000	JFJ	RLM	RLM	ADD SUMMARY TABLES. RELOCATE CCB2 OUTPUT. RELABEL N TO MC.

ATTACHMENT D
TITLE V EQUIPMENT TABLE

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
RAW COAL LINE					
B4	PE/WS	T8	Raw Coal Truck Dump Bin #4	100 Ton	1994
RCB6	PE	T12	Truck Dump Bin #4 Conveyor	2,400 TPH	1994
RCOS4	MC/Stacking Tubes	T15A	Raw Coal Stockpile #4	45,000 SQ FT/ 150,000 Ton	1994
B3	PE/WS	T7	Raw Coal Truck Dump Bin #3	100 Ton	1994
RCB5	PE	T11	Raw Coal Stockpile #4	2,400 TPH	1994
RCOS3	MC/Stacking Tubes	T15B	Raw Coal Stockpile #3	45,000 SQ FT/ 150,000 Ton	1994
RCB2	PE	T14	Birch Powell Ton Mile Belt	1,500 TPH	1994
RCOS2	MC/Stacking Tubes	T15C	Raw Coal Stockpile #2	45,000 SQ FT/150,000 Ton	1994
RCB1	PE	T13	Brushy Eagle Mine Belt	6,000 TPH	1994
RCOS1	MC/Stacking Tubes	T15D	Raw Coal Stockpile #1	45,000 SQ FT/150,000 Ton	1994
RCB7	PE/FE	T16	Raw Coal Reclaim Conveyor	2,400	1994
S-001	PE/WS	T17/T18	Single Deck Screen	2,500 TPH	1995
RCB8	PE	PP1	Plant Feed Conveyor	2,400 TPH	1994
MF-1	PE	MF-1	Run of Mine Belt	2,000 TPH	2004
MF-2	PE	MF-2	Run of Mine Belt	2,000 TPH	2004
TB-1	PE	TB-1	Run of Mine Belt	2,000 TPH	2004
HC-1	PE	HC-1	Run of Mine Belt	2,000 TPH	2004
LG-6	PE	LG-6	Run of Mine Belt	2,000 TPH	2004
LG-5	PE	LG-5	Run of Mine Belt	2,000 TPH	2004
LG-4	PE	LG-4	Run of Mine Belt	2,000 TPH	2004
LG-3	PE	LG-3	Run of Mine Belt	2,000 TPH	2004
LG-2	PE	LG-2	Run of Mine Belt	2,000 TPH	2004
LG1	PE	LG1	Run of Mine Belt	2,000 TPH	2004
MFOS1	MC	MFOS1	New Raw Coal Stockpile	21,780 SQ FT/ 25,000 Tons	2004

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
REFUSE COAL LINE					
CR2	FE	T22	Roll Crusher	500 TPH	1994
PP	FE	PP4	Prep Plant	1,200 TPH	1994
RB1	PE	T23	Refuse Belt #1	1,200 TPH	1994
RB2	PE	T24	Refuse Belt #2	1,200 TPH	1994
B9	PE	T58	Limestone Sand Bin #1	50 Ton	1994
RB3	PE	T27	Refuse Belt #3	1,200 TPH	1994
RB4	PE	T28	Refuse Belt #4	1,200 TPH	1997
RB5	PE	T29	Refuse Belt #5	1,200 TPH	1997
RB6	PE	T30	Refuse Belt #6	1,200 TPH	1997
RB7	PE	T31	Refuse Belt #7	1,200 TPH	1997
RB8	PE	T32	Refuse Belt #8	1,200 TPH	1997
RB9	PE	T33	Refuse Belt #9	1,200 TPH	1997
B6	FE	T35	Refuse Bin #2	500 Ton	1994
RB10	PE	T36	Refuse Belt #10	1,200 TPH	1997
RB11	MC	T37	Refuse Belt #11	1,200 TPH	1997
RB12	MC	T38	Refuse Belt #12	1,200 TPH	1997
RB13	MC	T39	Refuse Belt #13	1,200 TPH	1997
RMOS1	MC	N/A	Refuse Stockpile	71,000 SQ FT/100,000 Ton	1994
CLEAN COAL					
PP	FE	PP2	Prep Plant	1,200 TPH	1994
CCB2	PE	T42	Conveyor from Plant to CCOS2	1,200 TPH	1996
CCOS2	MC/Stacking Tubes	T49	Clean Coal (Midds) Stockpile #2	45,000 SQ FT/75,000 Ton	1994
PP	FE	PP3	Prep Plant	1,200 TPH	1994
CCB1	PE	T40	Conveyor from plant to CCB3	1,200 TPH	1994
CCB3	PE	T41/T43/ T44/T45	Conveyor to CCOS3, COS4, or CCB4	1,200 TPH	1994
CCOS1	MC/Stacking Tubes	T49	Clean Coal or Synfuel Stockpile	45,000 SQ FT/50,000 Ton	1994
CCOS3	MC/Stacking Tubes	T49	Clean Coal Stockpile #3	45,000 SQ FT/75,000 Ton	1994

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/ Modified
CCOS4	MC/Stacking Tubes	T49	Clean Coal Stockpile #4	45,000 SQ FT/100,000 Tons	1994
CCB4	PE	T46/T47	Conveyor to CCOS5 or CCB5	1,200 TPH	1994
CCOS5	MC/Stacking Tubes	T49	Clean Coal Stockpile #5	45,000 SQ FT/100,000 Tons	1994
CCB5	PE	T48	Conveyor to CCOS6	1,200 TPH	1994
CCOS6	MC/Stacking Tubes	T49	Clean Coal Stockpile #6	45,000 SQ FT/100,000 Tons	1994
CCB6	FE/PE	T50	Clean Coal Conveyor to Train Loadout	4,500 TPH	1994
B8	FE/WS/TC	T51	Bin #1 Train Loadout	150 Ton	1994
LSOS1	MC	N/A	Limestone Sand Pile	300 SQ FT/400 Ton	1994
B5	FE	T26	Refuse Bin #1	300 Ton	1994
RB4A	MC	T21	Refuse Belt #4A	600 TPH	2001
RCB9	PE	T61	Conveyor #9	1,200 TPH	2002
RC1	FE/FE	T62	Crusher	1,200 TPH	2002
RCB10	PE	T63	Conveyor #10	1,200 TPH	2002
HAULROAD SUMMARY					
PVHR1	RWMW	T4/T3	Raw Coal Trucks	N/A	N/A
PVHR2	RWMW	T56	Limestone Trucks	N/A	N/A
PVHR3	RWMW	T59	Direct Ship Trucks	N/A	N/A
UPHR1	RWMW	T4/T3	Raw Coal Trucks	N/A	N/A
UPHR2	RWMW	T57/T2	End-Loader/Dozer Traffic	N/A	N/A
UPHR3	RWMW	T26	Refuse Trucking from B5	N/A	N/A

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E
EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001	Emission unit name: Transfer Points	List any control devices associated with this emission unit: Various
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various transfers of raw coal, clean coal, refuse, and limestone sands.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: 1994/2002	Installation date: 1994/2002	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Various. See Attachment D and Attachment H.

Maximum Hourly Throughput: See Attachment D and Attachment H.	Maximum Annual Throughput: See Attachment D and Attachment H.	Maximum Operating Schedule: 8,760 Hrs/Yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)1	31.51 / 11.11	73.42 / 27.34
Particulate Matter (PM ₁₀)2	37.61 / 14.31	92.39 / 37.30
Total Particulate Matter (TSP)1	66.62 / 23.48	155.23 / 57.81
Total Particulate Matter (TSP)2	79.42 / 30.20	195.07 / 78.73
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
None		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Used AP42, Section 13-2.4 (01/95) and the assumption that TSP/2.1 = PM 10. The numbers 1 and 2 reflect emissions from scenario 1 or alternative scenario 2.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no source specific requirements for this emissions unit. See Facility-Wide Requirements in Section I.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

NA

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 002	Emission unit name: S-001 Single Deck Screen	List any control devices associated with this emission unit: PE/WS
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Particulate emissions associated with screening.

Manufacturer: Svedala	Model number: 10' x 20'	Serial number: J08949
Construction date: 1995	Installation date: 1995	Modification date(s): 2002 (changed control device)

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 2,500 TPH

Maximum Hourly Throughput: 2,500 TPH	Maximum Annual Throughput: 20,220,000 TPY	Maximum Operating Schedule: 8,760 HRS/YR
--	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u> X </u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	117.50 / 23.50	475.17 / 95.03
Total Particulate Matter (TSP)	250.00 / 50.00	1011.00 / 202.20
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
None		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions factor of 0.10 for screening from the Air Pollution Engineering Manual and References. Also assumed that TSP/2.1 = PM10.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no source specific requirements for this emissions unit. See Facility-Wide Requirements in Section I.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

NA

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 003	Emission unit name: Breaking and Crushing	List any control devices associated with this emission unit: FE's
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Two Crushers
CR2 – Roll Crusher and RC1 - Crusher

Manufacturer: McLanahan / N/A	Model number: N/A	Serial number: B8201 / N/A
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Construction date: 1994/2004	Installation date: 1994/2004	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
500 TPH / 1,200 TPH

Maximum Hourly Throughput: 500 TPH / 1,200 TPH.	Maximum Annual Throughput: 4,044,000 / 1,051, 200	Maximum Operating Schedule: 8,760 Hrs/Yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)RC1	11.28 / 0.45	4.94 / 0.20
Particulate Matter (PM ₁₀)CR2	4.70 / 0.94	19.01 / 3.80
Total Particulate Matter (TSP)RC1	24.00 / 0.96	10.51 / 0.42
Total Particulate Matter (TSP)CR2	10.00 / 2.00	40.44 / 8.09
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
None		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emission factor of 0.02 lb/ton used from the Air Pollution Engineering Manual and References. Also the assumption TSP/2.1 = PM10 is used.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no source specific requirements for this emissions unit. See Facility-Wide Requirements in Section I.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

NA

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 004	Emission unit name: Stockpiles	List any control devices associated with this emission unit: Various
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
RCOS1, RCO21, RCOS3, MFOS1, CCOS1, CCOS2, CCOS3, CCOS4, CCOS5, CCOS6, RMOS1, LSOS1

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: N/A	Installation date: N/A	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 2,500 TPH
Various. See Attachment D and Attachment H.

Maximum Hourly Throughput: See Attachment D and Attachment H.	Maximum Annual Throughput: See Attachment D and Attachment H.	Maximum Operating Schedule: 8,760 HRS/YR
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u> X </u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)1	2.01 / 2.01	8.81 / 8.81
Particulate Matter (PM ₁₀)2	2.07 / 2.07	9.06 / 9.06
Total Particulate Matter (TSP)1	4.28 / 4.28	18.75 / 18.75
Total Particulate Matter (TSP)2	4.40 / 4.40	19.27 / 19.27
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
None		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Used Emission Equation from AP42 Section 11.2.3, Fugitive Emissions (May 1983). The numbers 1 and 2 reflect emissions from scenario 1 or alternative scenario 2.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no source specific requirements for this emissions unit. See Facility-Wide Requirements in Section I.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

NA

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT F
SCHEDULE OF COMPLIANCE FORM

ATTACHMENT F - Schedule of Compliance Form

Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.

1. Applicable Requirement

THERE IS NO SCHEDULE OF COMPLIANCE.

Unit(s):

Applicable Requirement:

2. Reason for Noncompliance:

3. How will Compliance be Achieved?

4. Consent Order Number (if applicable):

5. Schedule of Compliance. Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.

Remedial Measure or Action	Date to be Achieved

6. Submittal of Progress Reports.

Content of Progress Report:

Report starting date: MM/DD/YYYY

Submittal frequency:

ATTACHMENT G
AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
NONE

List all emission units associated with this control device.

Manufacturer:

Model number:

Installation date:
MM/DD/YYYY

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

ATTACHMENT H
COMPLIANCE ASSURANCE MONITORING (CAM) FORM

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): YES NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
 - d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
 - e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

- RENEWAL APPLICATION.** **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.
- INITIAL APPLICATION** (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.
- SIGNIFICANT MODIFICATION TO LARGE PSEUs.** **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for all PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU. In order to supplement the submittal requirements specified in 40 CFR §64.4, if additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
EXAMPLE Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation:	4b) Pollutant:	4c) ^a Indicator No. 1:	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:			
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:			
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:			
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
^d Provide the <u>MONITORING FREQUENCY</u> :			
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:			
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:			

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:

6b) Regulated Air Pollutant:

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

By: SRK
Date: December 10, 2004

Checked By: PEW
Date: December 13, 2004

Summary of Emissions

Alternative Scenario Emissions from the Proposed Mine Belt Addition:

	Point Source and Fugitive Emissions			
	Uncontrolled TSP		Controlled TSP	
	(pph)	(tpy)	(pph)	(tpy)
Transfer Point Emissions	12.80	39.84	6.72	20.92
Stockpile Emissions	0.12	0.52	0.12	0.52
Total TSP Emissions =	12.92	40.36	6.84	21.44

	Point Source and Fugitive Emissions			
	Uncontrolled PM ₁₀		Controlled PM ₁₀	
	(pph)	(tpy)	(pph)	(tpy)
Transfer Point Emissions	6.10	18.97	3.20	9.96
Stockpile Emissions	0.06	0.25	0.06	0.25
Total PM₁₀ Emissions =	6.16	19.22	3.26	10.21

Marfork Coal Company is currently permitted to truck 2,400 tons/hour and 19,411,200 tons/year of raw coal to truck dump bins B3 and B4. The proposed Marsh Fork Mine belt addition would provide an alternative scenario for transferring raw coal from nearby mines to Marfork Preparation Plant's raw coal stockpile area. Each ton of coal that is conveyed on the Marsh Fork Mine belt addition would be one less ton of coal that is trucked. Based on Marfork's potential to emit that was provided to DAQ in the October 2002 Title V Significant Permit Modification Application, the potential raw coal trucking emissions for the maximum 12,442,000 tons of material proposed for the mine belt addition is determined by calculating the ratio of 12,442,000 / 19,411,200 = 64% and applying this to the potential trucking emissions.

Raw Coal Trucking Emissions PTE @ 19,411,200 tons (taken from the facility's PTE submitted to DAQ September 2002)

Uncontrolled TSP		Controlled TSP	
243.82 lbs/hr	493.00 tpy	60.95 lbs/hr	123.25 tpy
Uncontrolled PM ₁₀		Controlled PM ₁₀	
109.72 lbs/hr	221.85 tpy	27.43 lbs/hr	55.46 tpy

Prorated Raw Coal Trucking Emissions @ proposed 12,442,000 tons on mine belt addition (64% of raw coal trucking PTE)

Uncontrolled TSP		Controlled TSP	
156.04 lbs/hr	315.52 tpy	39.01 lbs/hr	78.88 tpy
Uncontrolled PM ₁₀		Controlled PM ₁₀	
70.22 lbs/hr	141.98 tpy	17.56 lbs/hr	35.49 tpy

Change in Emissions when Utilizing Alternative Operating Scenario (Mine Belt Addition minus Prorated Trucking)

Uncontrolled TSP		Controlled TSP	
-143.12 lbs/hr	-275.16 tpy	-32.17 lbs/hr	-57.44 tpy
Uncontrolled PM ₁₀		Controlled PM ₁₀	
-64.06 lbs/hr	-122.76 tpy	-14.30 lbs/hr	-25.28 tpy

This calculation demonstrates that emissions from trucking 12,442,000 tons is greater than transferring this material across the proposed mine belt addition. Marfork does not seek to reduce the potential to emit for the facility through this Class II Administrative Update. Trucking this material will continue to represent the worst case emissions scenario. The proposed Marsh Fork Mine belt addition is an alternative operating scenario which will result in decreased actual emissions when this method of delivery is employed.

By: SRK
 Date: December 10, 2004

Checked By: PEW
 Date: December 13, 2004

Batch or Continuous Drop Transfer Points

Emission factor equation:

$$E = k (0.0032) (U/5)^{1.3} / (M/2)^{1.4}$$

From AP-42 Fifth Edition, Section 13.2.4, Aggregate Handling and Storage Piles

E = ? lb/ton
 k = 0.74 dimensionless, particle size multiplier (TSP)
 U = 7 mph, mean wind speed
 M = ? %, moisture content

Control device type legend:

FE Full Enclosure
 PE Partial Enclosure
 MC Moisture Content
 MD Minimize Drop Height
 RWGW Water Truck - Gravity Fed
 N None

Rounding to = 2

ID	Transfer Capacity		Moisture Content (M) (%)	Emission Factor (E) (lb/ton)	Control Device		Emissions			
	(tph)	(tpy)			Type	Effic(%)	Uncontrolled (pph)	Controlled (pph)	Uncontrolled (tpy)	Controlled (tpy)
T100	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T101	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T102	See Note 1				PE	50				
T103	See Note 1				PE	50				
T104	2,000	12,442,000	6.0	0.0008	FE	80	1.60	4.98	0.32	1.00
T105	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T106	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T107	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T108	2,000	12,442,000	6.0	0.0008	PE	50	1.60	4.98	0.80	2.49
T109	See Note 1				PE	50				
T110	See Note 1				PE	50				
T111	2,000	12,442,000	6.0	0.0008	N	0	1.60	4.98	1.60	4.98
TSP =							12.80	39.84	6.72	20.92
PM₁₀⁽²⁾ =							6.10	18.97	3.20	9.96

Notes:

- (1) These transfer points are not included in the calculation total in order to avoid double counting of emissions.
- (2) TSP to PM₁₀ conversion: 2.1 lbs TSP = 1.0 lbs PM₁₀.

By: SRK
 Date: December 10, 2004

Checked By: PEW
 Date: December 13, 2004

Wind Erosion of Open Stockpile

Emission factor equation:

$E = 1.7 * (s/1.5) [(365-p)/235] (f/15)$ (lb/day/acre)
 From AP-42 Fifth Edition, Section 11.2.3, Aggregate Handling and Storage Piles

Raw Coal

E = ? lb/day/acre
 s = 5.7 %, material silt content
 p = 157 days, # of days with >= 0.01 in. of precipitation
 f = 15 %, unobstructed wind speed > 12 mph
 e = 5.72 lb/day/acre

Control device type legend:

FE Full Enclosure
 PE Partial Enclosure
 MC Moisture Content
 MD Minimize Drop Height
 RWGW Water Truck - Gravity Fed
 N None

Rounding to = 2

ID	Base Area (acre)	Emission Factor (lb/day/acre)	Control Device Type	Emissions				
				Effic(%)	Uncontrolled (pph)	Uncontrolled (tpy)	Controlled (pph)	Controlled (tpy)
MFOS1	0.5	5.72	MC	0	0.12	0.52	0.12	0.52
				TSP =	0.12	0.52	0.12	0.52
				PM ₁₀ ⁽¹⁾ =	0.06	0.25	0.06	0.25

Note:

(1) TSP to PM₁₀ conversion: 2.1 lbs TSP = 1.0 lbs PM₁₀.

APPENDIX
SUPPORTING EMISSIONS CALCULATIONS

APPENDIX

OPERATING SCENARIO DISCUSSION

Marfork Coal Company (Marfork) permitted the Marsh Fork Mine belt addition to convey run of mine coal from the Marsh Fork Mine and Low Gap Mains of the Marsh Fork Mine directly to the preparation plant's existing truck dumps and raw coal open stockpiles with permit R13-1967C. This system serves as an alternative operating scenario for transporting raw coal to the preparation plant and does not replace the existing permitted raw coal trucking. However, for each ton of coal transported across the Marsh Fork Mine belt addition there is one less ton of coal available for transport by truck. There is no increase in the total feed to the preparation plant above the permitted rates.

Marfork does not propose to increase permitted emissions rates but, rather, include the alternative operating scenario permitted in R13-1967C in its renewed Title V Permit. For simplicity, the scenarios will be referred to as Scenario 1 and Scenario 2. Scenario 1 is the existing scenario reflected in the current version of Marfork's Title V Permit. Existing calculations from the most recent Title V Significant Permit Revision (ERSG 10/02) show emissions for Scenario 1. Scenario 2 is the most recent scenario permitted under R13-1967C. Calculations from R13-1967C (POTESTA 12/04) show emissions for Scenario 2. Please see supporting emissions calculations for each Scenario 2 included as part of Attachment H.

Project: ERSG02-167-10
 By: JFJ
 Date: 10-10-02

Title V Emission Calculations
 Marfork Preparation Plant

Checked By: RLM
 Date: 10-11-02

PARTICULATE EMISSIONS SUMMARY

Name of applicant: Marfork Coal Company
 Name of plant: Marfork Preparation Plant

Particulate Matter or PM (for 45CSR14 Major Source Determination)

Uncontrolled PM		Controlled PM	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	4.28	18.75	4.28	18.75
<i>Unpaved Haulroad Emissions</i>	459.87	1,342.28	114.97	335.57
<i>Paved Haulroad Emissions</i>	1,507.52	1,833.85	376.88	458.46
Fugitive Emissions Total	1,971.67	3,194.88	496.13	812.79

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	284.00	1,061.95	52.96	210.71
<i>Transfer Point Emissions</i>	66.62	155.23	23.48	57.81
Point Source Emissions Total*	350.62	1,217.18	76.44	268.52

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

Facility Emissions Total	2,322.29	4,412.06	572.57	1,081.31
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 268.52**
 (Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

Uncontrolled PM-10		Controlled PM-10	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	2.01	8.81	2.01	8.81
<i>Unpaved Haulroad Emissions</i>	206.94	604.02	51.74	151.01
<i>Paved Haulroad Emissions</i>	708.54	861.91	177.13	215.48
Fugitive Emissions Total	917.49	1,474.75	230.88	375.30

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	133.48	499.12	24.89	99.03
<i>Transfer Point Emissions</i>	31.51	73.42	11.11	27.34
Point Source Emissions Total*	164.99	572.54	36.00	126.38

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

Facility Emissions Total	1,082.48	2,047.28	266.88	501.67
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For coal handling and preparation facilities, the following emission calculation methods will provide an adequate estimate of facility emissions from point sources and fugitive emission sources. However, where source (facility) specific tests are available, such information is preferable. Other emission factors may be acceptable provided documentation as to accuracy and appropriateness are provided by the applicant.

Completely fill out the following INPUTS pages with all requested facility specific information.

INPUTS

Include all information for each emission source and transfer point as listed in the permit application.

Name of applicant: Marfork Coal Company
 Name of plant: Marfork Preparation Plant

1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

	Number of Crushers and Screens	Raw coal processed per hour (Tons)	Raw coal processed per year (Tons)	Control Device ID Number	Control Efficiency %
Primary Crushing (RC1)	1	1,200	1,051,200	FE/FE	96
Primary Crushing (CR2)	1	500	4,044,000	FE	80
Secondary Crushing					
Screening	1	2,500	20,220,000	PE/WS	80

2. TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)

k =	Particle Size Multiplier (dimensionless)	PM	PM-10
		0.74	0.35
U =	Mean Wind Speed (mph)	7	

Yearly throughput based on 8,088 hr/yr or estimated maximum usage

Transfer Point ID No.	Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Material Moisture Content %	Maximum Transfer Rate		Control Device ID Number	Control Efficiency %
			TPH	TPY		
T1	Reserved					
T2A	Truck to RCOS2	8	1,000	250,000	PE/WS	80
T3	Truck to B3	8	2,400	19,411,200	PE	50
T4	Truck to B4	8	2,400	19,411,200	PE	50
T5	Reserved					
T6	Reserved					
T7	B3 to RCB5	8	2,400	19,411,200	PE	50
T8	B4 to RCB6	8	2,400	19,411,200	PE	50
T9	Reserved					
T10A	Truck to RCOS2	8	1,000	250,000	MC	0
T11	RCB2 / RCB5 to RCOS3	8	2,400	19,411,200	FE/MD	80
T12	RCB6 to RCOS4	8	2,400	19,411,200	FE/MD	80
T13	Brushy Eagle (Coon Eagle) to RCOS1	8	6,000	14,000,000	FE/MD	80
T14	Birch Powellton (Overland) to RCOS3	8	1,500	3,000,000	FE/MD	80
T15	RCOS4 + RCOS3 + RCOS2 + RCOS1 to RCB7	8	2,500	20,220,000	FE	80
T16	RCB7 to S001	8	2,500	20,220,000	PE	50
T17	S001 to CR2	8	500	4,044,000	FE	80
T18	S001 to RCB8	8	2,400	19,411,200	FE	80
T19	Endloader to hopper	7	600	1,314,000	PE	50
T20	Hopper to RB4A	7	600	1,314,000	FE	80
T21	RB4A to RB4	7	600	1,314,000	PE	50
T22	CR2 to RB1	7	500	4,044,000	FE	80
T23	RB1 to RB2	7	1,200	9,705,600	PE	50
T24	RB2 to RB3	7	1,200	9,705,600	PE	50
T25*	RB3 to B5	7			PE	50
T26*	B5 to truck or ground	7			PE	50
T27	RB2 to RB3	7	1,200	9,705,600	FE	80
T28	RB4 to RB5	7	1,200	9,705,600	PE	50
T29	RB5 to RB6	7	1,200	9,705,600	PE	50
T30	RB6 to RB7	7	1,200	9,705,600	PE	50
T31	RB7 to RB8	7	1,200	9,705,600	PE	50
T32	RB8 to RB9	7	1,200	9,705,600	PE	50
T33	RB9 to B6	7	1,200	9,705,600	FE	80
T34*	B6 to truck or ground	7			PE	50



INPUTS

2. TRANSFER POINTS (Continued)

T35*	B6 overflow chute to ground	7			PE	50
T36	RB10 to RB11	7	1,200	9,705,600	PE	50
T37	RB11 to RB12	7	1,200	9,705,600	PE	50
T38	RB12 to RB13	7	1,200	9,705,600	PE	50
T39	RB13 to Stockpile (RMOS1)	7	1,200	9,705,600	MC	0
T40*	CCB1 to CCB3	7			PE	50
T41*	CCB3 to CCOS1	7			PE	50
T42	CCB2 to CCOS2 (mids)	3	1,200	9,705,600	PE	50
T43*	CCB3 to CCOS3	7			PE	50
T44*	CCB3 to CCOS4	7			PE	50
T45*	CCB3 to CCB4	7			PE	50
T46*	CCB4 to CCOS5	7			PE	50
T47*	CCB4 to CCB5	7			PE	50
T48*	CCB5 to CCOS6	7			PE	50
T49	CCOS to CCB6	3	4,500	9,705,600	FE	80
T50	CCB6 to B8	3	4,500	9,705,600	PE	50
T51	B8 to R.R. loadout	3	4,500	9,705,600	TC	75
T52	Reserved					
T53	Reserved					
T54	Reserved					
T55	Reserved					
T56	Lime - Truck to LSOS1	2	50	97,056	MC	0
T57	Lime - Endloader to B9	2	12	97,056	PE	50
T58	Lime - B9 to RB3	2	12	97,056	PE	50
T59	Truck to hopper	8	1,200	1,051,200	PE	50
T60	Hopper to RCB9	8	1,200	1,051,200	PE	50
T61	RCB9 to RC1	8	1,200	1,051,200	PE/FE	90
T62	RC1 to RCB10	8	1,200	1,051,200	FE	80
T63	RCB10 to CCOS3 or CCB3	8	1,200	1,051,200	PE	50
PP1	RCB8 to Preparation Plant	8	2,400	19,411,200	FE	80
PP2	Preparation Plant to CCB2 (mids)	3	1,200	9,705,600	FE	80
PP3*	Preparation Plant to CCB1	7			FE	80
PP4	Preparation Plant to RB1	7	1,200	9,705,600	FE	80

Note: * not included in worse case transfer scenario. Worse case PM emission involves the Mids product being loaded out to railcar. Train loadout is permitted for a combined throughput of 10.5 mmtpy.

3. WIND EROSION OF STOCKPILES (including all stockpiles of raw coal, clean coal, coal refuse, etc.)

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height	15

Source ID No.	Stockpile Description	Silt Content of Material %	Stockpile base area Max. sqft	Control Device ID Number	Control Efficiency %
RCOS1	Raw Coal	5.7	45,000	MC	0
RCOS2	Raw Coal	5.7	45,000	MC	0
RCOS3	Raw Coal	5.7	45,000	MC	0
RCOS4	Raw Coal	5.7	45,000	MC	0
RMOS1	Refuse	5	71,000	MC	0
CCOS1	Synfuel	11.4	45,000	MC	0
CCOS2	Mids	11.4	45,000	MC	0
CCOS3	Clean Coal	11.4	45,000	MC	0
CCOS4	Clean Coal	11.4	45,000	MC	0
CCOS5	Clean Coal	11.4	45,000	MC	0
CCOS6	Clean Coal	11.4	45,000	MC	0
LSOS1	Lime	11	300	MC	0

MC = Moisture content



INPUTS

4. UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

		PM	PM-10
k =	particle size multiplier	0.80	0.36
s =	silt content of road surface material (%)	5	
p =	number of days per year with precipitation >0.01 inch	157	

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1	UPHR1 (Raw Coal Trucks to B3 & B4)	10	50	10	1.2	48	194,112	RWMW	75
2	UPHR2 (Dozer / Endloader Traffic)	4	150	5	1	1	8,088	RWMW	75
3	UPHR3 (Emergency refuse trucks from B5)	6	115	10	2.8	13	102,165	RWMW	75
4									
5									
6									
7									
8									

Note: Refuse is transferred via conveyors to refuse area, except as noted.

5. INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

l =	Industrial augmentation factor (dimension less)	3.5
n =	number of traffic lanes	2
s =	surface material silt content (%)	3
L =	surface dust loading (lb/mile)	13,300

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1	PVHR1 (Raw Coal Trucks)	50	1	48	194,112	RWMW	75
2	PVHR2 (Lime Trucks)	50	1	1	1,942	RWMW	75
3	PVHR3 (Direct Ship Trucks)	24	1.7	48	41,224	RWMW	75
4							
5							
6							
7							
8							

Note: Clean coal is transferred via conveyors to train loadout. Clean coal is not trucked off-site.

6. STORAGE TANKS: Insignificant Emission Units

Item Number	Location	Material being stored	Storage Tank Cap. gallons	VOC emissions lbs/hr	VOC emissions tons/yr	Control Device ID Number	Control Efficiency %
1	Clean coal stockpile	Diesel	2000	0.0002	0.001	N	0
2	Clean coal stockpile	Oil	825	0.005	0.022	N	0
3	Upper/backyard	Kerosene	550	0.00003	0.00013	N	0
4	Back of plant on hill	Kerosene	550	0.00003	0.00013	N	0
5	Raw coal stockpile	Diesel	4000	0.0003	0.0013	N	0
6	Raw coal stockpile	Oil	825	0.005	0.022	N	0
7	Refuse area	Diesel	1000	0.0001	0.00044	N	0
8	Refuse area	Oil	1000	0.006	0.026	N	0
9	Refuse Bin 2 area	Diesel	8000	0.0004	0.0018	N	0
10	Refuse Bin 2 area	Diesel	4000	0.0003	0.0013	N	0
11	Refuse Bin 2 area	Oil	855	0.005	0.022	N	0
12	Refuse stacker area	Diesel	2000	0.0002	0.00088	N	0
13	Refuse stacker area	Oil	855	0.005	0.022	N	0
Total VOC:				0.028	0.121		

7. PNEUMATICALLY LOADED BINS: Insignificant Emission Units

Item Number	Location	Emission factor lb/ton**	Maximum throughput TPH	Maximum throughput TPY	Control Device ID Number	Control Efficiency %	PM emissions lb/hr	PM emissions tons/yr
1	100-ton magnetite Bin	0.72	90	20,500	WS*	99.9	0.065	0.065

*The magnetite bin is vented underwater in the heavy media sump inside the preparation plant.

** Emission factor per AP-42 Table 11.12-2: Cement unloading to elevated storage silo (pneumatic).



DO NOT enter data on this page

1. Emissions From CRUSHING AND SCREENING

EMISSION SOURCE	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Primary Crushing (RC1)	24.00	10.51	0.96	0.42	11.28	4.94	0.45	0.20
Primary Crushing (CR2)	10.00	40.44	2.00	8.09	4.70	19.01	0.94	3.80
Secondary Crushing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Screening	250.00	1011.00	50.00	202.20	117.50	475.17	23.50	95.03
TOTAL	284.00	1061.95	52.96	210.71	133.48	499.12	24.89	99.03

Source:
Air Pollution Engineering Manual and References

EMISSION FACTORS

Primary Crushing	0.02	lb/ton processed (maximum raw coal input)
Secondary Crushing	0.06	lb/ton processed (maximum raw coal input)
Screening	0.10	lb/ton processed (maximum raw coal input)

Assumption that PM-10 is 47% of PM (based on particle size multiplier)



DO NOT enter data on this page

2. Emissions From TRANSFER POINTS

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
T1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T2A	0.53	0.07	0.11	0.01	0.25	0.03	0.05	0.01
T3	1.26	5.11	0.63	2.56	0.60	2.42	0.30	1.21
T4	1.26	5.11	0.63	2.56	0.60	2.42	0.30	1.21
T5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T7	1.26	5.11	0.63	2.56	0.60	2.42	0.30	1.21
T8	1.26	5.11	0.63	2.56	0.60	2.42	0.30	1.21
T9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T10A	0.53	0.07	0.53	0.07	0.25	0.03	0.25	0.03
T11	1.26	5.11	0.25	1.02	0.60	2.42	0.12	0.48
T12	1.26	5.11	0.25	1.02	0.60	2.42	0.12	0.48
T13	3.16	3.69	0.63	0.74	1.49	1.74	0.30	0.35
T14	0.79	0.79	0.16	0.16	0.37	0.37	0.07	0.07
T15	1.32	5.32	0.26	1.06	0.62	2.52	0.12	0.50
T16	1.32	5.32	0.66	2.66	0.62	2.52	0.31	1.26
T17	0.26	1.06	0.05	0.21	0.12	0.50	0.02	0.10
T18	1.26	5.11	0.25	1.02	0.60	2.42	0.12	0.48
T19	0.38	0.42	0.19	0.21	0.18	0.20	0.09	0.10
T20	0.38	0.42	0.08	0.08	0.18	0.20	0.04	0.04
T21	0.38	0.42	0.19	0.21	0.18	0.20	0.09	0.10
T22	0.32	1.28	0.06	0.26	0.15	0.61	0.03	0.12
T23	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T24	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T25*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T26*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T27	0.76	3.08	0.15	0.62	0.36	1.46	0.07	0.29
T28	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T29	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T30	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T31	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T32	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T33	0.76	3.08	0.15	0.62	0.36	1.46	0.07	0.29
T34*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T35*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T36	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T37	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T38	0.76	3.08	0.38	1.54	0.36	1.46	0.18	0.73
T39	0.76	3.08	0.76	3.08	0.36	1.46	0.36	1.46
T40*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T41*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T42	2.49	10.09	1.25	5.04	1.18	4.77	0.59	2.39
T43*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T44*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T45*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T46*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T47*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T48*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T49	9.35	10.09	1.87	2.02	4.42	4.77	0.88	0.95
T50	9.35	10.09	4.68	5.04	4.42	4.77	2.21	2.39
T51	9.35	10.09	2.34	2.52	4.42	4.77	1.11	1.19
T52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T56	0.18	0.18	0.18	0.18	0.09	0.08	0.09	0.08
T57	0.04	0.18	0.02	0.09	0.02	0.08	0.01	0.04
T58	0.04	0.18	0.02	0.09	0.02	0.08	0.01	0.04
T59	0.63	0.28	0.32	0.14	0.30	0.13	0.15	0.07
T60	0.63	0.28	0.32	0.14	0.30	0.13	0.15	0.07
T61	0.63	0.28	0.06	0.03	0.30	0.13	0.03	0.01
T62	0.63	0.28	0.13	0.06	0.30	0.13	0.06	0.03
T63	0.63	0.28	0.32	0.14	0.30	0.13	0.15	0.07
PP1	1.26	5.11	0.25	1.02	0.60	2.42	0.12	0.48
PP2	2.49	10.09	0.50	2.02	1.18	4.77	0.24	0.95
PP3*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PP4	0.76	3.08	0.15	0.62	0.36	1.46	0.07	0.29
TOTALS	66.62	155.23	23.48	57.81	31.51	73.42	11.11	27.34



2. Emissions From TRANSFER POINTS (Continued)

Source:

AP-42 Fifth Edition
 13.2.4 Aggregate Handling and Storage Piles

Emissions From Batch Drop

$$E = k * (0.0032) * [(U/5)^{1.3}] / [(M/2)^{1.4}] = \text{pounds/ton}$$

Where:

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)		
M =	Material Moisture Content (%)		

Assumptions:

k - Particle size multiplier

For PM (< or equal to 30um) k = 0.74

For PM-10 (< or equal to 10um) k = 0.35

For PM $E(M) = 0.003667 * [1 / ((M/2)^{1.4})] = \text{pounds/ton}$

For PM-10 $E(M) = 0.001735 * [1 / ((M/2)^{1.4})] = \text{pounds/ton}$

For lb/hr $[\text{lb/ton}] * [\text{ton/hr}] = [\text{lb/hr}]$

For Tons/year $[\text{lb/ton}] * [\text{ton/yr}] * [\text{ton}/2000\text{lb}] = [\text{ton/yr}]$

DO NOT enter data on this page

3. Emissions From WIND EROSION OF STOCKPILES

Stockpile ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
RCOS1	0.25	1.08	0.25	1.08	0.12	0.51	0.12	0.51
RCOS2	0.25	1.08	0.25	1.08	0.12	0.51	0.12	0.51
RCOS3	0.25	1.08	0.25	1.08	0.12	0.51	0.12	0.51
RCOS4	0.25	1.08	0.25	1.08	0.12	0.51	0.12	0.51
RMOS1	0.34	1.49	0.34	1.49	0.16	0.70	0.16	0.70
CCOS1	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
CCOS2	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
CCOS3	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
CCOS4	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
CCOS5	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
CCOS6	0.49	2.16	0.49	2.16	0.23	1.01	0.23	1.01
LSOS1	0.003	0.01	0.003	0.01	0.001	0.01	0.001	0.01
TOTALS	4.28	18.75	4.28	18.75	2.01	8.81	2.01	8.81

Source:
Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

$$E = 1.7 * [s/1.5] * [(365-p)/235] * [f/15] = (\text{lb/day/acre})$$

Where:

s =	silt content of material
p =	number of days with >0.01 inch of precipitation per year
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height

For PM $E(s) = 1.0031206 * s = \text{lb/day/acre}$

For PM-10 $E(s) = 0.4714667 * s = \text{lb/day/acre}$

For lb/hr $(\text{lb/day/acre}) * [\text{day}/24\text{hr}] * [\text{base area of pile (acres)}] = \text{lb/hr}$

For Ton/yr $(\text{lb/day/acre}) * [365\text{day/yr}] * [\text{Ton}/2000\text{lb}] * [\text{base area of pile (acres)}] = \text{Ton/yr}$

DO NOT enter data on this page

4. Emissions From UNPAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	243.82	493.00	60.95	123.25	109.72	221.85	27.43	55.46
2	2.89	11.68	0.72	2.92	1.30	5.26	0.32	1.31
3	213.16	837.60	53.29	209.40	95.92	376.92	23.98	94.23
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	459.87	1342.28	114.97	335.57	206.94	604.02	51.74	151.01

Source:
 AP-42 Fifth Edition
 13.2.2 Unpaved Roads

Emission Estimate For Unpaved Haulroads

$$E = k * (5.9) * (s/12) * (S/30) * (W/3)^{0.7} * (w/4)^{0.5} * ((365-p)/365) = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

k =	particle size multiplier	0.80	0.36
s =	silt content of road surface material (%)		
S =	Mean vehicle speed (mph)		
W =	Mean vehicle weight (tons)		
w =	mean number of wheels per vehicle		
p =	number of days per year with precipitation >0.01 inch		

Assumptions:

k - Particle size multiplier
 For PM (< or equal to 30um) k = 0.80
 For PM-10 (< or equal to 10um) k = 0.36

For PM $E(S,W,w) = 1.1207306 * (S/30) * [(W/3)^{0.7} * (w/4)^{0.5}] = \text{lb/VMT}$

For PM-10 $E(S,W,w) = 0.5043288 * (S/30) * [(W/3)^{0.7} * (w/4)^{0.5}] = \text{lb/VMT}$

For lb/hr $[\text{lb/VMT}] * [\text{VMT/trip}] * [\text{Trips/Hour}] = \text{lb/hr}$

For Tons/yr $[\text{lb/VMT}] * [\text{VMT/trip}] * [\text{Trips/Year}] * [\text{Ton}/2000\text{lb}] = \text{Tons/year}$

DO NOT enter data on this page

5. Emissions From INDUSTRIAL PAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	739.77	1495.82	184.94	373.95	347.69	703.03	86.92	175.76
2	15.41	14.96	3.85	3.74	7.24	7.03	1.81	1.76
3	752.34	323.07	188.09	80.77	353.60	151.84	88.40	37.96
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	1507.52	1833.85	376.88	458.46	708.54	861.91	177.13	215.48

Source:

AP-42 83' Edition

11.2.6 INDUSTRIAL PAVED ROADS

Emission Estimate For Paved Haulroads

$$E = 0.077 * I * [4/n] * [s/10] * [L/1000] * [W/3]^{0.7} = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

I =	Industrial augmentation factor (dimensionless)
n =	number of traffic lanes
s =	surface material silt content (%)
L =	surface dust loading, (lb/mile)
W =	average vehicle weight, (ton)

For PM $E(W) = 2.15061 [W/3]^{0.7} = \text{(lb/VMT)}$

For PM-10 $E(W) = 1.0107867 [(W/3)^{0.7}] = \text{(lb/VMT)}$

For lb/hr $[\text{lb/VMT}] * [\text{VMT/trip}] * [\text{Trips/Hour}] = \text{lb/hr}$

For Tons/yr $[\text{lb/VMT}] * [\text{VMT/trip}] * [\text{Trips/Year}] * [\text{Ton}/2000\text{lb}] = \text{Tons/year}$