#### MARFORK COAL COMPANY

# MARFORK PREPARATION PLANT ID NO. 081-00078 GENERAL PERMIT MODIFICATION DIVISION OF AIR QUALITY

**Submittal Date: February 2016** 

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

601 - 57<sup>th</sup> Street SE Charleston, WV 25304

Phone: (304) 926-0475 • www.wvdep.org

## APPLICATION FOR GENERAL PERMIT REGISTRATION

CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE A STATIONARY SOURCE OF AIR POLLUTANTS

PLEASE CHECK ALL THAT APPLY (IF KNOWN):  □ CONSTRUCTION ■ MODIFICATION □ RELOCATION  □ ADMINISTRATIVE UPDATE □ AFTER-THE-FACT		Y USE ONLY: PLANT I.D. #		
CHECK WHICH TYPE OF GENERAL PERMIT I	REGISTRATION Y	OU ARE APPLYING FOR:		
G10-D – Coal Preparation and Handling G20-B – Hot Mix Asphalt	☐ <b>G50-B –</b> Co			
☐ G30-D - Natural Gas Compressor Stations ☐ G33-A - Class I Spark Ignition Internal Combustion Engine ☐ G35-A - Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit)	G60-C - Class II Emergency Generator G65-C - Class I Emergency Generator			
SECTION I. GENERA	AL INFORMATIO	v		
1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF ST. MARFORK COAL COMPANY, INC.	2. FEDERAL EMPLOYER ID NO. (FEIN): 55-0723539			
3. APPLICANT'S MAILING ADDRESS: PO BOX 457, WHITESVILLE, WV 25209				
4. IF APPLICANT IS A SUBSIDIARY CORPORATION, PLEASE PROVIDE ALPHA NATURAL RESOURCES	THE NAME OF PA	ARENT CORPORATION:		
5. WV BUSINESS REGISTRATION. IS THE APPLICANT A RESIDENT OF  IF YES, PROVIDE A COPY OF THE CERTIFICATE OF  PAGE) INCLUDING ANY NAME CHANGE AMENDME  IF NO, PROVIDE A COPY OF THE CERTIFICATE OF AUT  INCLUDING ANY NAME CHANGE AMENDMENTS OR OT	INCORPORATION INTS OR OTHER THORITY / AUTHORITY / AUTHORITY /	ON / ORGANIZATION / LIMITED PARTNERSHIP (ONE BUSINESS CERTIFICATE AS ATTACHMENT A. ORITY OF L.L.C. / REGISTRATION (ONE PAGE)		
See Attack	nment A			
000000000000000000000000000000000000000	EV 1450 DAVA = : 0	•		

#### SECTION II. FACILITY INFORMATION

7. TYPE OF PLANT OR FACILITY (STATIONARY SOURCE) TO BE CONSTRUCTED, MODIFIED, RELOCATED OR ADMINISTRATIVELY UPDATED (E.G., COAL PREPARATION PLANT, PRIMARY CRUSHER, ETC.):	8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE FOR THE FACILITY: 1221 and 1222
ADD THREE RAW COAL BELTS AND FIVE REFUSE BELTS; CHANGE RATES FOR EXISTING REFUSE BELTS; CHANGE RATES AND THROUGHPUT FOR LOW GAP RC BELTS	

9A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY:	10A. LIST ALL CURRENT 45CSR13 AND 45CSR30 (TITLE V) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR EXISTING FACILITY ONLY):
081-00078	G10D-145B

	PRIMARY OPERATING SITE INFORMATION
11A. NAME OF PRIMARY OPERATING SITE:	12A. MAILING ADDRESS OF PRIMARY OPERATING SITE:
Marfork Prep Plant	PO Box 457, Whitesville, WV 25209
13A. DOES THE APPLICANT OWN, LEASE, HAVE YES □ NO  □ IF YES, PLEASE EXPLAIN: OWNER/C □ IF NO, YOU ARE NOT ELIGIBLE FOR A PE	
	ATIVE UPDATES, AT AN EXISTING FACILITY, PLEASE PROVIDE DIRECTIONS TO THE ITY FROM THE NEAREST STATE ROAD;

FOR **CONSTRUCTION OR RELOCATION PERMITS**, PLEASE PROVIDE DIRECTIONS TO *THE PROPOSED NEW SITE LOCATION* FROM THE NEAREST STATE ROAD.

From Charleston, take Route 3, pass thru Whitesville, drive approximately 2 miles, turn left onto County Route 3/1, plant is approximately 1.1 miles east

INCLUDE A MAP AS ATTACHMENT F. See Attachment F

15A. NEAREST CITY OR TOWN:	16A. COUNTY:	
Pettus	Raleigh	
17A. UTM NORTHING (KM):	18A. UTM EASTING (KM):	19A. UTM ZONE:
4199.70	453.7	17

#### 1ST ALTERNATE OPERATING SITE INFORMATION (G20-B, G40-C, G50-C only)

11B. NAME OF PRIMARY OPERATING SITE:	12B. MAILING ADDRESS OF PRIMARY OPER.	ATING SITE:
13B. DOES THE APPLICANT OWN, LEASE, HAV □ YES □ NO □ IF YES, PLEASE EXPLAIN:	,	
☐ IF <b>NO</b> , YOU ARE NOT ELIGIBLE FOR A PE	EDMIT EOD THIS SOLIDOE	
·		I FACE DROVIDE DIRECTIONS TO THE
14B. ➡ FOR <b>MODIFICATIONS</b> or <b>ADMINISTRA</b> PRESENT LOCATION OF THE FACIL	ITY FROM THE NEAREST STATE ROAD;	LEASE PROVIDE DIRECTIONS TO THE
FOR <b>CONSTRUCTION OR RELOCATION</b> FROM THE NEAREST STATE ROAD.	ON PERMITS, PLEASE PROVIDE DIRECTIONS	TO THE PROPOSED NEW SITE LOCATION
INCLUDE A MAP AS ATTACHMENT F.		
15B. NEAREST CITY OR TOWN:	16B. COUNTY:	
13B. NEAREST CITY OR TOWN.	IOD. COUNTY.	
17B. UTM NORTHING (KM):	18B. UTM EASTING (KM):	19B. UTM ZONE:

#### 2<sup>ND</sup> ALTERNATE OPERATING SITE INFORMATION (G20-B, G40-C, G50-C only)

11C. NAME OF PRIMARY OPERATING SITE:	12C. MAILING ADDRESS OF PRIMARY OPERATING SITE:					
13C. DOES THE APPLICANT OWN, LEASE, HAV ☐ YES ☐ NO ☐ IF YES, PLEASE EXPLAIN: ————————————————————————————————————	,	CONTROL	OF THE PROPOSED SITE?			
□ IF NO, YOU ARE NOT ELIGIBLE FOR A PE						
14C. ➡ FOR <b>MODIFICATIONS</b> or <b>ADMINISTRA</b> **PRESENT LOCATION OF THE FACIL	<b>ITIVE UPDATES,</b> AT AN EXISTING FACILITY, P ITY FROM THE NEAREST STATE ROAD;	LEASE PRO	OVIDE DIRECTIONS TO THE			
FOR <b>CONSTRUCTION OR RELOCATION</b> FROM THE NEAREST STATE ROAD.	ON PERMITS, PLEASE PROVIDE DIRECTIONS	TO THE PR	ROPOSED NEW SITE LOCATION			
INCLUDE A MAP AS ATTACHMENT F.						
15C. NEAREST CITY OR TOWN:	16C. COUNTY:					
17C. UTM NORTHING (KM):	18C. UTM EASTING (KM):	19C. UTM	ZONE:			
20. PROVIDE THE DATE OF ANTICIPATED INST	·		21. DATE OF ANTICIPATED START- UP IF REGISTRATION IS GRANTED:			
THE DATE UPON WHICH THE PROPOSED CHANGE DID HAPPEN:/ March 15, 2016						
22. PROVIDE MAXIMUM PROJECTED <b>OPERATI</b>	ING SCHEDULE OF ACTIVITY/ ACTIVITIES OUT	TLINED IN	THIS APPLICATION:			
HOURS PER DAY 24 DAYS PER WE	EEK 7_ WEEKS PER YEAR 52_ PER	CENTAGE (	OF OPERATION 100%			

## WEST VIRGINIA STATE TAX DEPARTMENT BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:

MARFORK COAL COMPANY INC DBA MINING SUPPORT GROUP/PROCESSING MAINTENANCE GROU PO BOX 1949 CHARLESTON, WV 25327-1949

BUSINESS REGISTRATION ACCOUNT NUMBER:

1042-4795

This certificate is issued on:

07/6/2010

This certificate is issued by the West Virginia State Tax Commissioner in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.2 L1218870016

#### PROCESS DESCRIPTION

The Marfork Preparation Plant Facility is located in a remote area near Pettus in Raleigh County.

The modification addresses a decrease in the rate and throughput for the Low Gap belts, as the mine is idle with an unknown startup date; the installation of raw coal belt BC-42 which will transfer to another belt BC-43 that now feeds OS-02; and the installation of another belt BC-44 that will transfer to BC-09 to feed OS-04. Refuse belt rates have also been changed from 1350TPH to 1500TPH.

Although the maximum equipment operating rates show the ability to process 21,021,000 tons of coal, projections for the raw coal production from area deep mines and the raw coal truck dump will limit raw coal throughput to 12,000,000 tons per year. Alpha Natural Resources requests that the facility be limited to 12,000,000 raw tons throughput to depict reasonable operation, with leave to evaluate the facility annually and further modify the facility as production increases.

Raw coal delivered to the plant would be transferred to stockpile areas OS-01(SW-WS), OS-02(SW-WS), OS-03(SW-WS) and OS-04(SW-WS) from the Coon Eagle Mine via BC-01(PE); from Coon Cedar Mine via BC-02(PE); from the Low Gap Mine area via BC-04(PE), BC-05(PE), BC-06(PE), BC-07(PE), BC-08(PE) and BC-09(PE); and trucked coal would go through truck dump BS-01(PW) and go to OS-03 via BC-03(PE). This process is depicted in transfer points TP-01(TC-PE),

TP-02(TC-MDH), TP-03(TC-PE), TP-04(UD-PW), TP-05(TC-FE) TP-06(TC-PE), TP-07(TC-FE), TP-08(TC-FE), TP-09(TC-FE), TP-10(TC-FE), TP-11(TC-FE), and TP-12(TC-PE).

With this modification, raw coal belt BC-01 from the Coon Eagle Mine will transfer to proposed belt conveyor BC-42(PE) at TP-83(TC-FE); BC-42 will transfer to proposed conveyor BC-43(PE) which will now feed OS-02 @ TP-84(TC-FE) and TP-85(TC-PE); BC-42 will also transfer to proposed belt conveyor BC-44(PE) @ TP-86(TC-FE); BC-44 will transfer to existing belt BC-09 @ TP-87(TC-FE).

Raw coal is then reclaimed to belt BC-10(FE); transferred to belt BC-11(PE) and sent to the 10x20 Single Deck Screen SS-01(FW). Marfork plans to fully enclose the screen and add water sprays to reduce the screen's potential to emit. The screen will discharge refuse to refuse crusher CR-01(FE) for transfer to refuse belt BC-22(PE) and discharge raw coal to belt BC-12(PE) for transfer to the plant. This process is depicted in transfer points TP-13(LO-UC) thru TP-22(TC-FW).

Clean middlings coal transfers to the clean coal stockpile area via belt BC-13(PE). Oversize clean coal runs thru clean coal crusher CR-02(FW) inside the plant while all clean coal is transferred from the plant to clean coal stockpile OS-05(SW-WS) thru OS-10(SW-WS) via clean coal belt conveyors BC-14(PE) thru BC-18(PE) @ TP-23(TC-FW) thru TP-37(TC-PE) as depicted.

Pit-cleaned direct ship coal is delivered to truck dump BS-03(PW); goes thru pick breaker CR-03(FW); to transfer belt BC-20(PE); to a secondary crusher CR-04(FW); and to the stockpile feed belt BC-21(PE) @ TP-38(UD-PW) thru TP-44(TC-PE).

Clean coal is reclaimed from the stockpile areas to the loadout belt BC-19(PE); to loadout bin BS-02(FE); then to railcar @ transfer points TP-45(LO-UC) thru TP-52(LR-TC).

Refuse material from the plants is transferred to the disposal area via belt conveyors BC-20(PE) thru BC-34(NC). Refuse belt BC-24 has the option of transferring to refuse bin BS-04(FE) to be loaded out to truck or transferring to refuse belt BC-25. Bin BS-04 is used only if a problem is encountered during the refuse process. This process is depicted at transfer points TP-53(TC-FW) thru TP-69(TC-MDH). Limestone and gravel is sometimes used as treatment for the refuse material and is delivered to a small stockpile OS-11(SW-WS); transferred by front-end loader to feed bin BS-05(PW); where it is deposited onto refuse belt BC-24 for neutralization. This process is depicted @ TP-70(UL-MDH) thru TP-72(TC-PE). One refuse belt was added to the system in 2014. There was a change for TP- 69 whereas BC-34 transfers to BC-36(NC) and TP-76(TC-MDH) is added for transfer from BC-36 to Ground.

Another refuse maintenance area that is currently out of service and would require a great deal of mechanical work to restore is also on site. Cleaned-up material would be fed by front-end loader to bin BS-06(PW); transfer to belt BC-35(PE); and discharge to refuse belt BC-25. There are no plans to start this system but has been included for operational flexibility. This process takes place at transfer points TP-73(UL-MDH) thru TP-75(TC-PE).

With this modification, five new refuse belt conveyors will be added to the Low Gap Refuse Disposal Area. The belts will enter the system where BC-25 will transfer to proposed belts BC-37(PE) @ TP-

#### ATTACHMENT B

77(TC-PE); BC-37 to BC-38(PE) @ TP-78(TC-PE); BC-38 to BC-39(PE) @ TP-79(TC-PE); BC-39 to BC-40(PE) @ TP-80(TC-PE); BC-40 to BC-41(NC) @ TP-81(TC-PE); BC-41 to Ground @ TP-82(TC-MDH).

#### **DESCRIPTION OF FUGITIVE EMISSIONS**

Potential sources of fugitive particulate emissions for this facility include emissions, which are not captured by pollution control equipment and emissions from open stockpiles and vehicular traffic on paved and unpaved haulroads and work areas. The haulroads and work areas will be controlled by water truck in accordance with section E.6.c.i. of the General Permit.

The water truck is equipped with pumps sufficient to maintain stockpiles, haulroads and work areas. The water truck will be operated three times daily, and more as needed in dry periods. An additive to prevent freezing will be utilized in the winter months when freezing conditions are present.

As addressed in the Fugitive Emissions Dust Control Plan, dozers are located in the stockpile areas and compaction is used as the stockpile control mechanism.

#### CRUSHING AND SCREENING AFFECTED SOURCE SHEET

	CKOSIIING	7.1.1.D G G 1.1.E.	<u> </u>	OIXOL OIIL	
Source Identif	ication Number <sup>1</sup>	SS-01			
Type of Crus	sher or Screen <sup>2</sup>	SD			
Date of M	lanufacture <sup>3</sup>	1995			
Maximum	tons/hour	2500			
Throughput <sup>4</sup>	tons/year	12,000,000			
Material si	zed from/to:5	4x0			
Average Moist	ure Content (%)6	7			
Control Devi	ce ID Number <sup>7</sup>	FW			
	height (ft)	N/A			
	diameter (ft)				
	volume (ACFM)				
Baghouse	exit temp (°F)				
Stack Parameters <sup>8</sup>	UTM Coordinates				
	hours/day	24			
Maximum Operating	days/year	365			
Schedule <sup>9</sup>	hours/year	8760			
	January-March	25			
	April-June	25			
Percentage of	July- September	25			
Operation <sup>10</sup>	Oct-December	25			

- 1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
- 2. Describe types of crushers and screens using the following codes:

HM Hammermill

DR Double Roll Crusher

BM Ball Mill

RB Rotary Breaker

JC Jaw Ćrusher

GC Gyratory Crusher

OT Other

SS Stationary Screen

SD Single Deck Screen

DD Double-Deck Screen

TD Triple Deck Screen

OT Other

- 3. Enter the date that each crusher and screen was manufactured.
- 4. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
- Describe the nominal material size reduction (e.g. +2"/ -\_").
- 6. Enter the average percent moisture content of the material processed.
- Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A Control Device
   Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.
- 8. Enter the appropriate stack parameters if a baghouse control device is used.
- 9. Enter the maximum operating schedule for each crusher

#### CRUSHING AND SCREENING AFFECTED SOURCE SHEET

_	CINOSIIIIAG	AND SCILL		LOILD 30	DIVOL DITLE	<b>-</b>
			In-Plant	РВ	DS	
Source Identif	Source Identification Number <sup>1</sup>		CR-02	CR-03	CR-04	
Type of Crus	sher or Screen <sup>2</sup>	Refuse Crusher	DR	РВ	DR	
Date of M	lanufacture <sup>3</sup>	1994	1994	2002	2002	
Maximum	tons/hour	630	400	800	800	
Throughput <sup>4</sup>	tons/year	1,200,000	3,504,000	1,000,000	1,000,000	
Material si	zed from/to:5	4x0	4x0	6x0	4x0	
Average Moist	cure Content (%)6	7	7	5	5	
Control Devi	ce ID Number <sup>7</sup>	FE	FW	FW	FW	
	height (ft)	N/A				
	diameter (ft)					
	volume (ACFM)					
Baghouse	exit temp (°F)					
Stack Parameters <sup>8</sup>	UTM Coordinates					
	hours/day	24	24	24	24	
Maximum Operating	days/year	365	365	365	365	
Schedule <sup>9</sup>	hours/year	8760	8760	8760	8760	
	January-March	25	25	25	25	
	April-June	25	25	25	25	
Percentage of	July- September	25	25	25	25	
Operation <sup>10</sup>	Oct-December	25	25	25	25	

- 1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
- 2. Describe types of crushers and screens using the following codes:

HM Hammermill

DR Double Roll Crusher

BM Ball Mill

RB Rotary Breaker

JC Jaw Crusher

GC Gyratory Crusher

OT Other

SS Stationary Screen

SD Single Deck Screen

DD Double-Deck Screen

TD Triple Deck Screen

OT Other

- 3. Enter the date that each crusher and screen was manufactured.
- 4. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
- 5. Describe the nominal material size reduction (e.g. +2"/ -\_").
- 6. Enter the average percent moisture content of the material processed.
- 7. Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.
- 8. Enter the appropriate stack parameters if a baghouse control device is used.
- 9. Enter the maximum operating schedule for each crusher

#### **CONVEYING AFFECTED SOURCE SHEET**

Source	Date of	Type of	Size of		n Material er Rate⁵	Average Moisture	Control
Identification Number <sup>1</sup>	Manufacture/ Modification <sup>2</sup>	Material Handled <sup>3</sup>	Material Handled <sup>4</sup>	tons/hour	tons/year	Content (%) <sup>6</sup>	Device 7
Coon Eagle BC-01	1994/M2016	RC	4x0	4000	4,000,000	8	PE
Coon Cedar BC-02	1994	RC	4x0	1500	4,000,000	6	PE
TD Reclaim BC-03	1994	RC	4x0	2400	2,000,000	6	PE
Low Gap BC-04	2004/M2016	RC	4x0	1000	1,000,000	8	PE
Low Gap BC-05	2004/M2016	RC	4x0	1000	1,000,000	8	PE
Low Gap BC-06	2004/M2016	RC	4x0	1000	1,000,000	8	PE
Low Gap BC-07	2004/M2016	RC	4x0	1000	1,000,000	8	PE
Low Gap BC-08	2004/M2016	RC	4x0	1000	1,000,000	8	PE
OS-04 Feed BC-09	2004/M2016	RC	4x0	2400	3,000,000	8	PE
RC Reclaim BC-10	1994	RC	4x0	2500	12,000,000	7	PE
Screen Feed BC-11	1994	RC	4x0	2500	12,000,000	7	PE
Plant Feed BC-12	1994	RC	4x0	2500	12,000,000	7	PE
Middlings BC-13	1994	СС	2x0	1200	3,300,000	7	PE
CC Plant BC-14	1994	cc	2x0	1200	6,600,000	7	PE
CC Transfer BC-15	1994	СС	2x0	1200	6,600,000	7	PE
CC Transfer BC-16	1994	СС	2x0	1200	7,600,000	7	PE
CC Transfer BC-17	1994	СС	2x0	1200	2,200,000	7	PE
CC Transfer BC-18	1994	СС	2x0	1200	1,100,000	7	PE

Source Identification	Date of Manufacture/	Type of Material	Size of Material		Maximum Material Transfer Rate⁵		Control Device
Loadout							
BC-19	1994	CC	2x0	4500	7,600,000	6	PE
DS							
BC-20	2002	CC	4x0	800	1,000,000	5	PE
DS							
BC-21	2002	CC	2x0	800	1,000,000	5	PE
Refuse							
BC-22	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-23	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-24	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-25	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-26	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	4004/750040			4=			
BC-27	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	4004/350040	<b>5</b> /	4.0/0	4500		4.5	
BC-28	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	4004/840046	Defere	4 0/0	4500	6 000 000	45	DE
BC-29	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse BC-30	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	1994/1012016	Reluse	-1 3/6	1300	6,000,000	13	PE
BC-31	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	1994/11/2010	Neruse	-1 3/0	1300	0,000,000	13	'-
BC-32	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse	1334/11/2010	Norusc	-1 3/0	1300	0,000,000	13	'-
BC-33	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	NC
Refuse			. 0,0	.500	0,000,000		1.10
BC-34	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	NC
		Out of			-,,,		
Refuse		Service					
BC-35	2001	Refuse	-1 3/8	10	20,000	15	PE
Refuse							
BC-36	1994/M2016	Refuse	-1 3/8	1500	6,000,000	15	NC
Refuse							
BC-37	2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-38	2016	Refuse	-1 3/8	1500	6,000,000	15	PE
Refuse							
BC-39	2016	Refuse	-1 3/8	1500	6,000,000	15	PE

Source Identification	Date of Manufacture/	Type of Material	Size of Material	Maximum Material Transfer Rate⁵		Average Moisture	Control Device
Refuse BC-40	2016	Refuse	-1 3/8	1500 6,000,000		15	PE
Refuse BC-41	2016	Refuse	-1 3/8	1500	6,000,000	15	NC
Raw Coal BC-42	2016	RC	4x0	2000	2,000,000	8	PE
Raw Coal							
BC-43 Raw Coal	2016	RC	4x0	2000	2,000,000	8	PE
BC-44	2016	RC	4x0	2000	2,000,000	8	PE

Source Identification Number <sup>1</sup>	TD BS-01	Rail BS-02	DS BS-03	Refuse BS-04	Sand BS-05	BS-06
Type of Material Stored <sup>2</sup>	RC	RC	СС	СС	Sand/Grav el	Refuse
Average Moisture Content (%) <sup>3</sup>	5	7	5	15	4	5
Maximum Yearly Storage Throughput (tons) <sup>4</sup>	2,000,000	7,600,000	1,000,000	1,000,000	20,000	20,000
Maximum Storage Capacity (tons)⁵	100	150	100	300	50	30
Maximum Base Area (ft²) <sup>6</sup>					Refuse Treatment	Refuse Clean Up
Maximum Pile Height (ft) <sup>7</sup>						
Method of Material Load-in <sup>8</sup>	TD	SS	TD	SS	FE	FE
Load-in Control Device Identification Number9	UD-PW	TC-FE	TC-PW	TC-FE	TC-MDH	TC-MDH
Storage Control Device Identification Number9	SW-PW	SW-FE	SW-PW	SW-FE	SW-PW	SW-PW
Method of Material Load-out <sup>8</sup>	SS	TC	тс	Truck	SS	SS
Load-out Control Device Identification Number <sup>9</sup>	TC-FE	LR-TC	TC-FE	LO-MDH	TC-FE	TC-FE

Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

Bin or Storage Silo (full enclosure) BS

Enclosure (three sided enclosure)

OS Open Stockpile Storage Building (full enclosure)

SF Stockpiles with wind fences

- Other: Pressurized Truck OT
- Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).
- Enter the average percent moisture content of the stored material. 3.
- Enter the maximum yearly storage throughput for each storage activity.
- 5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- 6. For stockpiles, enter the maximum stockpile base area.
- For stockpiles, enter the maximum stockpile height. 7.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes: 8.
  - CS Clamshell Stationary Conveyor/Stacker
  - FC Fixed Height Chute from Bins ST Stacking Tube
  - Front Endloader TC Telescoping Chute from Bins
  - Mobile Conveyor/Stacker Truck Dump MC TD
  - Under-pile or Under-Bin Reclaim Conveyor Pneumatic Conveyor/Stacker UC PC RC
    - Rake or Bucket Reclaim Conveyor OT Other

Source Identification	Coon Eagle	Coon Eagle	Coon Cedar	Low Gap	00.05
Number <sup>1</sup>	OS-01	OS-02	OS-03	OS-04	OS-05
Type of Material Stored <sup>2</sup>	RC	RC	RC	RC	СС
Average Moisture Content (%) <sup>3</sup>	6	6	6	6	7
Maximum Yearly Storage Throughput (tons) <sup>4</sup>	4,000,000	3,000,000	4,000,000	3,000,000	1,100,000
Maximum Storage Capacity (tons) <sup>5</sup>	40,000	40,000	40,000	40,000	40,000
Maximum Base Area (ft²) <sup>6</sup>	88,869	88,869	88,869	88,869	88,869
Maximum Pile Height (ft) <sup>7</sup>	75'	75'	75'	75'	75'
Method of Material Load-in <sup>8</sup>	SS	SS	SS	SS	SS
Load-in Control Device Identification Number <sup>9</sup>	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)
Storage Control Device Identification Number <sup>9</sup>	SW-WS	SW-WS	SW-WS	SW-WS	SW-WS
Method of Material Load-out <sup>8</sup>	UC	UC	UC	UC	UC
Load-out Control Device Identification Number <sup>9</sup>	LO-UC	LO-UC	LO-UC	LO-UC	LO-UC

Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

Bin or Storage Silo (full enclosure)

Enclosure (three sided enclosure)

os Open Stockpile

SB Storage Building (full enclosure)

Stockpiles with wind fences

OT OtheR

- Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area. 6.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

Clamshell CS

Stationary Conveyor/Stacker Stacking Tube SS

FC Fixed Height Chute from Bins ST

Front Endloader

Telescoping Chute from Bins TC

MC Mobile Conveyor/Stacker

TD Truck Dump

Under-pile or Under-Bin Reclaim Conveyor UC

Pneumatic Conveyor/Stacker

RC Rake or Bucket Reclaim Conveyor

Source Identification Number <sup>1</sup>	OS-06	OS-07	OS-08	OS-09	OS-10
Type of Material Stored <sup>2</sup>	СС	CC	СС	CC	СС
Average Moisture Content (%) <sup>3</sup>	7	7	7	7	7
Maximum Yearly Storage Throughput (tons) <sup>4</sup>	1,100,000	2,100,000	1,100,000	1,100,000	1,100,000
Maximum Storage Capacity (tons)⁵	40,000	40,000	40,000	40,000	40,000
Maximum Base Area (ft²)6	88,869	88,869	88,869	88,869	88,869
Maximum Pile Height (ft) <sup>7</sup>	75'	75'	75'	75'	75'
Method of Material Load-in <sup>8</sup>	SS	SS	SS	SS	SS
Load-in Control Device Identification Number <sup>9</sup>	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)
Storage Control Device Identification Number9	SW-WS	SW-WS	SW-WS	SW-WS	SW-WS
Method of Material Load-out <sup>8</sup>	UC	UC	UC	UC	UC
Load-out Control Device Identification Number <sup>9</sup>	LO-UC	LO-UC	LO-UC	LO-UC	LO-UC

Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

- Bin or Storage Silo (full enclosure) BS
- os Open Stockpile

E3

SF Stockpiles with wind fences

Storage Building (full enclosure) SB

Enclosure (three sided enclosure)

- OT OtheR
- Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area. 6.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes: 8.
  - Fixed Height Chute from Bins FC
    - Front Endloader
  - FΕ Mobile Conveyor/Stacker MC
  - Under-pile or Under-Bin Reclaim Conveyor UC
  - Rake or Bucket Reclaim Conveyor

- Stationary Conveyor/Stacker
- Stacking Tube ST
- Telescoping Chute from Bins TC
- TD Truck Dump
- Pneumatic Conveyor/Stacker

Source Identification Number <sup>1</sup>	OS-06	OS-07	OS-08	OS-09	OS-10
Type of Material Stored <sup>2</sup>	СС	CC	СС	CC	СС
Average Moisture Content (%) <sup>3</sup>	7	7	7	7	7
Maximum Yearly Storage Throughput (tons) <sup>4</sup>	1,100,000	2,100,000	1,100,000	1,100,000	1,100,000
Maximum Storage Capacity (tons)⁵	40,000	40,000	40,000	40,000	40,000
Maximum Base Area (ft²)6	88,869	88,869	88,869	88,869	88,869
Maximum Pile Height (ft) <sup>7</sup>	75'	75'	75'	75'	75'
Method of Material Load-in <sup>8</sup>	SS	SS	SS	SS	SS
Load-in Control Device Identification Number <sup>9</sup>	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)	TC-PE(ST)
Storage Control Device Identification Number9	SW-WS	SW-WS	SW-WS	SW-WS	SW-WS
Method of Material Load-out <sup>8</sup>	UC	UC	UC	UC	UC
Load-out Control Device Identification Number <sup>9</sup>	LO-UC	LO-UC	LO-UC	LO-UC	LO-UC

Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

- Bin or Storage Silo (full enclosure) BS
- os Open Stockpile

E3

SF Stockpiles with wind fences

Storage Building (full enclosure) SB

Enclosure (three sided enclosure)

- OT OtheR
- Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area. 6.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes: 8.
  - Fixed Height Chute from Bins FC
    - Front Endloader
  - FΕ Mobile Conveyor/Stacker MC
  - Under-pile or Under-Bin Reclaim Conveyor UC
  - Rake or Bucket Reclaim Conveyor

- Stationary Conveyor/Stacker
- Stacking Tube ST
- Telescoping Chute from Bins TC
- TD Truck Dump
- Pneumatic Conveyor/Stacker

Source Identification Number <sup>1</sup>	OS-11		
Type of Material Stored <sup>2</sup>	Sand/Lime stone		
Average Moisture Content (%) <sup>3</sup>	4		
Maximum Yearly Storage Throughput (tons) <sup>4</sup>	20,000		
Maximum Storage Capacity (tons)⁵	500		
Maximum Base Area (ft²) <sup>6</sup>	1,000		
Maximum Pile Height (ft) <sup>7</sup>	20'		
Method of Material Load-in <sup>8</sup>	TD		
Load-in Control Device Identification Number <sup>9</sup>	TC-MDH		
Storage Control Device Identification Number <sup>9</sup>	SW-WS		
Method of Material Load-out <sup>8</sup>	FE		
Load-out Control Device Identification Number9	LO-MDH		

Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

- Bin or Storage Silo (full enclosure) BS
- os Open Stockpile

E3 Enclosure (three sided enclosure) Storage Building (full enclosure) SB

SF Stockpiles with wind fences OT OtheR

- - Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area. 6.
- For stockpiles, enter the maximum stockpile height. 8.
  - Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:
    - Fixed Height Chute from Bins FC

Stationary Conveyor/Stacker ST

Front Endloader FΕ

Stacking Tube TC

Mobile Conveyor/Stacker MC

Telescoping Chute from Bins TD Truck Dump

UC

- Under-pile or Under-Bin Reclaim Conveyor Rake or Bucket Reclaim Conveyor
- Pneumatic Conveyor/Stacker

#### **ATTACHMENT H**

### BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET Not applicable for this facility

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1.	Baghouse Control Device Identification Number:
2.	Manufacturer's name and model identification:
3.	Number of compartments in baghouse:
4.	Number of compartments online during normal operation and conditions:
5.	Gas flow rate into baghouse: ACFM @ °F and PSIA
6.	Total cloth area: ft <sup>2</sup>
7.	Operating air to cloth ratio: ft/min
8.	Filter media type:
9.	Stabilized static pressure drop across baghouse: inches H <sub>2</sub> O
10.	Baghouse operation is:  □ Continuous □ Automatic □ Intermittent
11.	Method used to clean bags:
	☐ Shaker ☐ Pulse jet ☐ Reverse jet ☐ Other
12.	Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
	Entering baghouse: lb/hr and grains/ACF
	Exiting baghouse: lb/hr and grains/ACF
13.	Guaranteed minimum baghouse collection efficiency: %
14.	Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:

15. Describe the method of disposal for the collected material:

## AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that Marfork Coal Company, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Modification to add conveyors for a preparation plant and railcar load out facility located on Route 3/1, near Pettus in Raleigh County, West Virginia. The facility coordinates are as follows: latitude 37.9459361 and longitude –81.53145.

The applicant estimates the increase in the potential to discharge the following Regulated Air Pollutants will be: particulate matter baseline emissions of 2 tons per year, point source emissions particulate matter less than 10 microns total of 1 ton per year, and the controlled facility emission total of 2 tons per year.

Startup of operation is planned to begin upon permit approval. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the 5th day of February 2016

By: Marfork Coal Company, Inc. Kenneth D. Williams Authorized Agent PO Box 457 Whitesville, WV 25209

#### ELECTRONIC SUBMITTAL DISK LOCATED IN ORIGINAL COPY ONLY

#### ELECTRONIC SUBMITTAL DISK LOCATED IN ORIGINAL COPY ONLY

#### SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

PLEASE CHECK ALL ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

Please See the appropriate reference document for an explanation of the attachments listed below.

ATTACHMENT A: CURRENT BUSINESS CERTIFICATE

ATTACHMENT B: PROCESS DESCRIPTION

ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS

ATTACHMENT D: PROCESS FLOW DIAGRAM

ATTACHMENT E: PLOT PLAN
ATTACHMENT F: AREA MAP

ATTACHMENT G: AFFECTED SOURCE SHEETS

ATTACHMENT H: BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

ATTACHMENT I: EMISSIONS CALCULATIONS

ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT

ATTACHMENT K: ELECTRONIC SUBMITTAL DISKETTE

**APPLICATION FEE** 

ATTACHMENT L: CERTIFICATION OF INFORMATION

ATTACHMENT M: CHECKLIST OF ATTACHMENTS

PLEASE MAIL AN ORIGINAL AND TWO COPIES OF THE COMPLETE GENERAL PERMIT REGISTRATION APPLICATION WITH THE SIGNATURE(S) TO THE DAQ PERMITTING SECTION AT THE ADDRESS SHOWN ON THE FRONT PAGE. PLEASE DO NOT FAX PERMIT APPLICATIONS. FOR QUESTIONS REGARDING APPLICATIONS OR WEST VIRGINIA AIR POLLUTION RULES AND REGULATIONS PLEASE CALL (304) 926-0475.

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Page 1

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

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

Jul-14

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

#### 1a. PRIMARY CRUSHING

Primary Crusher	Description	Maximum Material Processing Capacity		Control Device	Control Efficiency
ID Number		TPH	IPY	ID Number	%
CR-01	Refuse Crusher	600	1,200,000	FE	80
CR-02	In-plant CC crusher	630 400	3,504,000	FW	90
CR-03	DS Breaker	800	1,000,000	FW	90
	Do bleaker		1,000,000		
			1		
			1		
			1		
			1		

#### 1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity IPH IPY		Control Device ID Number	Control Efficiency %
CR-04	DS Crusher	800	1,000,000	FVV	90

#### 1c. SCREENING

TO CONLET MICE							
Secondary		Maximum Material Processing Capacity		Control	Control		
& Tertiary	Description			Device	Efficiency		
Crusher ID		TPH	IPY	ID Number	%		
SS-01	RC PRIMARY SCREEN	2,500	12,000,000	FW	90		

M PM-10

_				
ľ	k =	Particle Size Multiplier (dimensionless)	0.74	0.35
I	U =	Mean Wind Speed (mph)	7	

Transfer	Transfer Point Description	Material		Maximum	Control	Control
Point ID No.	Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Moisture Content %	TPH	nsfer Rate TPY	Device ID Number	Efficiency %
ID NO.	crustiers, screens, stockpiles, etc. involved	Content 76	11111	11.1	ID Nullibel	70
TP-01	BC-01 to OS-01 Coon Eagle In	8	6,000	2,000,000	TC-PE	50
TP-02	OS-01 to OS-02 Dozer Push	8	114	1,000,000	TC-MDH	0
TP-03	BC-02 to OS-03 Coon Cedar In	8	1,500	4,000,000	TC-PE	50
TP-04	Truck to BS-01 Truck Dump In	6	228	2,000,000	UD-PW	80
TP-05	BS-01 to BC-03	6	2,400	2,000,000	TC-FE	80
TP-06	BC-03 to OS-03	6	2,400	2,000,000	TC-PE	50
TP-07	BC-04 to BC-05 Low Gap In	8	2,400	4,000,000	TC-FE	80
TP-08 TP-09	BC-05 to BC-06 BC-06 to BC-07	8	2,400	4,000,000	TC-FE TC-FE	80
TP-09	BC-06 to BC-07 BC-07 to BC-08	<u> </u>	2,400 2,400	4,000,000	TC-FE	80 80
TP-10	BC-08 to BC-09	8	2,400	4,000,000	TC-FE	80
TP-12	BC-09 to OS-04	8	2,400	4,000,000	TC-PE	50
TP-13	OS-04 to BC-10	7	2,500	4,000,000	LO-UC	80
TP-14	OS-03 to BC-10	7	2,500	6,000,000	LO-UC	80
TP-15	OS-02 to BC-10	7	2,500	1,000,000	LO-UC	80
TP-16	OS-01 to BC-10	7	2,500	2,000,000	LO-UC	80
TP-17	BC-10 to BC-11	7	2,500	12,000,000	TC-FE	80
TP-18	BC-11 to SS-01	7	2,500	12,000,000	TC-FW	90
TP-19	SS-01 to CR-01	7	630	1,200,000	TC-FW	90
TP-20	CR-01 to BC-22	7	630	1,200,000	TC-FE	80
TP-21	SS-01 to BC-12	7	2,500	12,000,000	TC-FW	90
TP-22	BC-12 to plant	7	2,500	12,000,000	TC-FW	90
TP-23	Plant to BC-13 Middlings	7	1,200	3,300,000	TC-FW	90
TP-24	BC-13 to BC-16	7	1,200	3,300,000	TC-PE	50
TP-25	Plant to CR-02 In plant	7	400	3,504,000	TC-FW	90
TP-26	CR-02 to BC-14 Clean Coal	7	400	3,504,000	TC-FW	90
TP-27 TP-28	Plant to BC-14 BC-14 to BC-15	7 7	1,200	6,600,000	TC-FW TC-PE	90
TP-26	BC-14 to BC-15 BC-15 to BC-16		1,200 1,200	6,600,000	TC-PE	50 50
TP-30	BC-16 to OS-05	7	1,200	1,100,000	TC-PE	50
TP-31	BC-16 to OS-06	7	1,200	1,100,000	TC-PE	50
TP-32	BC-16 to OS-07	7	1,200	1,100,000	TC-PE	50
TP-33	BC-16 to OS-08	7	1,200	1,100,000	TC-PE	50
TP-34	BC-16 to BC-17	7	1,200	2,200,000	TC-PE	50
TP-35	BC-17 to OS-09	7	1,200	1,100,000	TC-PE	50
TP-36	BC-17 to BC-18	7	1,200	1,100,000	TC-PE	50
TP-37	BC-18 to OS-10	7	1,200	1,100,000	TC-PE	50
TP-38	Truck to BS-03 Direct Ship	5	800	1,000,000	UD-PW	80
TP-39	BS-03 to CR-03	5	800	1,000,000	TC-FW	90
TP-40	CR-03 to BC-20	5	800	1,000,000	TC-FW	90
TP-41	BC-20 to CR-04	5	800	1,000,000	TC-FW	90
TP-42	CR-04 to BC-21	5	800	1,000,000	TC-FW	90
TP-43	BC-21 to OS-07	5	800	1,000,000	TC-PE	50
TP-44	BC-21 to BC-16	5	2.500	1,000,000	TC-PE	50
TP-45 TP-46	OS-05 to BC-19	6	2,500	1,100,000	LO-UC	80
TP-46 TP-47	OS-06 to BC-19 OS-07 to BC-19	6	2,500 2,500	1,100,000 2,100,000	LO-UC	80 80
TP-47	OS-07 to BC-19 OS-08 to BC-19	6	2,500	1,100,000	LO-UC	80
TP-49	OS-09 to BC-19	6	2,500	1,100,000	LO-UC	80
TP-50	OS-10 to BC-19	6	2,500	1,100,000	LO-UC	80
TP-51	BC-19 to BS-02	6	4,500	7.600.000	TC-FE	80
TP-52	BS-02 to Railcar	6	4,500	7,600,000	LO-TC	75
TP-53	Plant to BC-22 Refuse	15	1,350	6,000,000	TC-FW	90
TP-54	BS-22 to BC-23	15	1,350	6,000,000	TC-PE	50
TP-55	BC-23 to BC-24	15	1,350	6,000,000	TC-PE	50
TP-56	BC-24 to BS-04	15	114	1,000,000	TC-FE	80
TP-57	BS-04 to Truck	15	114	1,000,000	TC-MDH	0
TP-58	Truck to Disposal Area	15	114	1,000,000	UL-MDH	0
TP-59	BC-24 to BC-25	15	1,350	6,000,000	TC-PE	50
TP-60	BC-25 to BC-26	15	1,350	6,000,000	TC-PE	50
TP-61	BC-26 to BC-27	15	1,350	6,000,000	TC-PE	50
TP-62	BC-27 to BC-28	15	1,350	6,000,000	TC-PE	50
TP-63	BC-28 to BC-29	15	1,350	6,000,000	TC-PE	50

10%

Infrequently used

TP-64	BC-29 to BC-30		15	1,350	6,000,000	TC-PE	50
TP-65	BC-30 to BC-31		15	1,350	6,000,000	TC-PE	50
TP-66	BC-31 to BC-32		15	1,350	6,000,000	TC-PE	50
TP-67	BC-32 to BC-33		15	1,350	6,000,000	TC-MDH	0
TP-68	BC-33 to BC-34		15	1,350	6,000,000	TC-MDH	0
TP-69	BC-34 to BC-36	PROPOSED	15	1,350	6,000,000	TC-MDH	0
TP-70	Truck to OS-11	Treatment	4	3	20,000	UL-MDH	0
TP-71	OS-11 to BS-05		4	3	20,000	TC-PW	80
TP-72	BS-05 to BC-24		4	3	20,000	TC-PE	50
TP-73	Refuse to BS-06	Maintananaa	15	10	20,000	TC-MDH	0
TP-73 TP-74	BS-06 to BC-35	Maintenance Not in Service	15	10 10	20,000	TC-MDH	80
TP-74 TP-75	BC-35 to BC-25	Not in Service	15	10	20,000	TC-FE	50
TP-75	BC-35 10 BC-25		15	10	20,000	TC-PE	50
TP-76	BC-36 to Ground		15	1,350	6,000,000	TC-MDH	0
		<u> </u>			1		_
	1 1						
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Change

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed	20
	exceeds 12 mph at the mean pile height	

Source	Stockpile	Silt	Stockpile	Control	Control
ID No.	Description	Content of	base area	Device	Efficiency
		Material %	Max. sqft	ID Number	%
OS-01	Raw Coal	5	88,869	SW-ST	75
OS-02	Raw Coal	5	88,869	SW-ST	75
OS-03	Raw Coal	5	88,869	SW-ST	75
OS-03	Raw Coal	5	88,869	SW-ST	75
OS-04	Clean Coal	3.5	88,869	SW-ST	75
OS-05	Clean Coal	3.5	88,869	SW-ST	75
OS-06	Clean Coal	3.5	88,869	SW-ST	75
OS-07	Clean Coal	3.5	88,869	SW-ST	75
OS-08	Clean Coal	3.5	88,869	SW-ST	75
OS-09	Clean Coal	3.5	88,869	SW-WS	75
OS-10	Clean Coal	3.5	88,869	SW-WS	75
OS-11	Sand/gravel	7	500	SW-WS	75

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

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
$M_{dry} =$	surface material moisture content (%) - dry conditions	0.2

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	RC BS-01 2,000,000	18	50	15	1	4.56	40,000	HR-WS	70
3	Refuse 1,000,000	14	40	10	1	2.85	25,000	HR-WS	70
<u>4</u> 5	Dozers (pushing 12,000,000)	2	40	5	0.01	34.24	300,000	HR-WS	70
6									
8									

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

sL=	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

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	Raw Coal In	2000000	50	1	4.56	40,000	HR-WS	70
2	Direct Ship Clean Coal In	1000000	50	1	2.28	20,000	HR-WS	70
3	Sand/ Gravel 20,000 tons		25	1	0.09	800	HR-WS	70
4								
5								
6								
7								
8		·						

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Name of applicant: Name of plant: Marfork Coal Company Marfork Prep Plant Page 1

Jan-16

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

#### 1a. PRIMARY CRUSHING

Include all information for each emission source and

transfer point as listed in the permit application.

Primary Crusher	Description	Process	um Material ing Capacity	Control Device	Control Efficiency
ID Number		TPH	IPY	ID Number	%
CR-01	Refuse Crusher	600	1,200,000	FE	80
CR-02	In-plant CC crusher	630 400	3,504,000	FW	90
CR-03	DS Breaker	800	1,000,000	FW	90
	Do bleaker		1,000,000		
			1		
			1		
			1		
			1		

#### 1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity IPH IPY		Control Device ID Number	Control Efficiency %
CR-04	DS Crusher	800	1,000,000	FVV	90

#### 1c. SCREENING

TO: COTTEL					
Secondary		Maximum Material		Control	Control
& Tertiary	Description	Processing Capacity		Device	Efficiency
Crusher ID	'	TPH	TPÝ	ID Number	%
SS-01	RC PRIMARY SCREEN	2,500	12,000,000	FW	90

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

РМ PM-10

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

PO								T	ii
The   Color			·						
			•						
PRO2	ID No.	crushers, screens, stockp	oiles, etc. involved	Content %	TPH	TPY	ID Number	%	
PRO2	ΓΡ.Λ1	BC-01 to OS-01	Coon Fagle In	8	6,000	4 000 000	TC-PE	50	change
PROSESTION   PROPERTY   PROPERTY   PROPERTY   PROSEST   PROPERTY   PROSEST									onungo
Prop									
FP-96									
PROF.   BC-04 to BC-05	ГР-05			6			TC-FE		
Progress   BC-05 to BC-06   S	P-06	BC-03 to OS-03		6			TC-PE		
Pin	TP-07	BC-04 to BC-05	Low Gap In	8	1,000	1,000,000	TC-FE	80	Low Ga
P-10	P-08	BC-05 to BC-06		8	1,000	1,000,000	TC-FE	80	start up
P-11	P-09	BC-06 to BC-07		8	1,000	1,000,000	TC-FE	80	and thro
P-12	P-10	BC-07 to BC-08		8	1,000	1,000,000	TC-FE	80	
P134	P-11	BC-08 to BC-09		8	1,000	1,000,000	TC-FE	80	
P-14	P-12	BC-09 to OS-04		8	2,400	3,000,000	TC-PE	50	change
P-15	P-13	OS-04 to BC-10			2,500	3,000,000	LO-UC	80	change
P-16	P-14	OS-03 to BC-10		7	2,500	4,000,000	LO-UC	80	change
P-17	P-15	OS-02 to BC-10		7	2,500	3,000,000	LO-UC	80	change
P-18		OS-01 to BC-10		7	2,500	4,000,000	LO-UC	80	change
P.19	P-17	BC-10 to BC-11		7	2,500	12,000,000	TC-FE	80	
P.20	P-18	BC-11 to SS-01		7	2,500	12,000,000	TC-FW	90	
P-21	P-19	SS-01 to CR-01	10%	7	630	1,200,000	TC-FW	90	
P-22   BC-12 to plant						1,200,000		80	
P-23 Plant to BC-13 Middlings 7 1,200 3,300,000 TC-FW 90 P.24 BC-13 to BC-16 In plant 7 1,200 3,300,000 TC-FW 90 P.25 Plant to CR-02 In plant 7 400 3,504,000 TC-FW 90 P.26 CR-02 to BC-14 Clean Coal 7 400 3,504,000 TC-FW 90 P.27 Plant to BC-14 T 1,200 6,600,000 TC-FW 90 P.27 Plant to BC-14 T 1,200 6,600,000 TC-FW 90 P.28 BC-14 to BC-15 T 1,200 6,600,000 TC-FE 50 P.29 SC-15 to BC-16 T 1,200 1,100,000 TC-FE 50 P.29 SC-15 to BC-16 T 1,200 1,100,000 TC-FE 50 P.29 SC-15 to BC-16 T 1,200 1,100,000 TC-FE 50 P.31 BC-16 to OS-06 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to OS-06 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.33 BC-16 to BC-17 T 1,200 1,100,000 TC-FE 50 P.36 BC-17 to BC-18 T 1,200 1,100,000 TC-FE 50 P.36 BC-17 to BC-18 T 1,200 1,100,000 TC-FE 50 P.36 BC-17 to BC-18 T 1,200 1,100,000 TC-FE 50 P.37 BC-18 to BC-18 T 1,200 1,100,000 TC-FE 50 P.38 BC-17 to BC-18 T 1,200 1,100,000 TC-FE 50 P.39 BC-18 to BC-19 BC-18 T 1,200 1,100,000 TC-FE 50 P.39 BC-18 to BC-19 BC-18 T 1,200 1,100,000 TC-FE 50 P.39 BC-18 to BC-20 BC-18 BC-20	P-21	SS-01 to BC-12		7	2,500	12,000,000	TC-FW	90	
P-24   SC-13 to BC-16   7   1,200   3,300,000   TC-PE   50	P-22				2,500	12,000,000	TC-FW	90	
P.25	P-23	Plant to BC-13	Middlings	7	1,200		TC-FW	90	
P-26		BC-13 to BC-16			1,200			50	
P-27 Plant to BC-14 7 1,200 6,600,000 TC-FW 90 P-28 BC-14 to BC-15 7 1,200 6,600,000 TC-PE 50 P-29 BC-15 to BC-16 7 1,200 6,600,000 TC-PE 50 P-30 BC-16 to OS-05 7 1,200 1,100,000 TC-PE 50 P-31 BC-16 to OS-05 7 1,200 1,100,000 TC-PE 50 P-32 BC-16 to OS-07 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-07 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-34 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-35 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-36 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-37 BC-17 to BC-18 7 1,200 1,100,000 TC-PE 50 P-38 Truck to BS-03 Direct Ship 5 800 1,000,000 TC-PE 50 P-39 BC-10 to OS-09 5 800 1,000,000 TC-PE 50 P-41 BC-20 to CR-04 5 800 1,000,000 TC-FW 90 P-42 CR-04 to BC-21 5 800 1,000,000 TC-PE 50 P-43 BC-21 to OS-07 5 800 1,000,000 TC-PE 50 P-44 BC-21 to OS-07 5 800 1,000,000 TC-PE 50 P-45 OS-05 to BC-19 6 2,500 1,100,000 TC-PE 50 P-46 OS-06 to BC-19 6 2,500 1,100,000 TC-FE 50 P-47 OS-07 to BC-19 6 2,500 1,100,000 TC-FE 80 P-48 OS-08 to BC-19 6 2,500 1,100,000 LO-UC 80 P-49 OS-09 to BC-19 6 2,500 1,100,000 LO-UC 80 P-49 OS-09 to BC-19 6 2,500 1,100,000 LO-UC 80 P-49 OS-09 to BC-19 6 2,500 1,100,000 TC-FE 50 P-53 BC-24 to BC-22 Refuse 15 1,500 6,000,000 TC-FE 50 P-55 BC-24 to BC-25 15 1,500 6,000,000 TC-PE 50 P-56 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-60 BC-25 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-62 BC-27 to BC-28 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-62 BC-27 to BC-28 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-62 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-62 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P-62 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 P	P-25	Plant to CR-02	In plant	7	400	3,504,000	TC-FW	90	
P.28	P-26	CR-02 to BC-14	Clean Coal	7	400		TC-FW	90	
P-29	P-27	Plant to BC-14		7	· · · · · · · · · · · · · · · · · · ·	6,600,000	TC-FW	90	
P-30 BC-16 to OS-05 7 1,200 1,100,000 TC-PE 50 P-31 BC-16 to OS-06 7 1,200 1,100,000 TC-PE 50 P-32 BC-16 to OS-06 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-33 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-34 BC-16 to OS-08 7 1,200 1,100,000 TC-PE 50 P-35 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-35 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-36 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-37 BC-18 to OS-10 7 1,200 1,100,000 TC-PE 50 P-37 BC-18 to OS-10 7 1,200 1,100,000 TC-PE 50 P-38 BC-18 to OS-10 7 1,200 1,100,000 TC-PE 50 P-39 BS-03 to CR-03 DIrect Ship 5 800 1,000,000 TC-PE 90 P-39 BS-03 to CR-03 DIRECT Ship 5 800 1,000,000 TC-PW 90 P-44 BC-20 to CR-04 5 800 1,000,000 TC-PW 90 P-44 BC-20 to CR-04 5 800 1,000,000 TC-PW 90 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PW 90 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PE 50 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PE 50 P-45 OS-05 to BC-19 6 2,500 1,100,000 TC-PE 50 P-46 OS-06 to BC-19 6 2,500 1,100,000 LO-UC 80 P-47 OS-07 to BC-19 6 2,500 1,100,000 LO-UC 80 P-49 OS-09 to BC-19 6 2,500 1,100,000 LO-UC 80 P-50 OS-09 to BC-19 6 2,500 1,100,000 TC-PE 50 P-50 OS-09 to BC-19 6 2,500 1,100,000 TC-PE 50 P-50 OS-09 to BC-19 6 2,500 1,100,000 TC-PE 50 P-50 OS-09 to BC-19 6 2,500 1,100,000 TC-PE 50 P-50 OS-09 to BC-19 6 2,500 1,100,000 TC-PE 50 P-50 OS-09 to BC-19 6 4,500 7,600,000 TC-PE 50 P-50 OS-09 to BC-19 6 4,500 7,600,000 TC-PE 50 P-50 OS-09 to BC-19 6 4,500 7,600,000 TC-PE 50 P-50 OS-09 to BC-19 6 15 1,500 6,000,000 TC-PE 50 Ch P-50 BC-24 to BC-25					•	6,600,000	TC-PE	50	
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P-35 BC-17 to OS-09 7 1,200 1,100,000 TC-PE 50 P-36 BC-17 to BC-18 7 1,200 1,100,000 TC-PE 50 P-37 BC-18 to OS-10 7 1,200 1,100,000 TC-PE 50 P-38 Truck to BS-03 Direct Ship 5 800 1,000,000 UD-PW 80 P-39 BS-03 to CR-03 5 800 1,000,000 TC-FW 90 P-40 CR-03 to BC-20 5 800 1,000,000 TC-FW 90 P-41 BC-20 to CR-04 5 800 1,000,000 TC-FW 90 P-42 CR-04 to BC-21 5 800 1,000,000 TC-FW 90 P-43 BC-21 to OS-07 5 800 1,000,000 TC-FW 90 P-44 BC-21 to BC-21 5 800 1,000,000 TC-FW 90 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PE 50 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PE 50 P-44 BC-21 to BC-16 5 800 1,000,000 TC-PE 50 P-45 OS-05 to BC-19 6 2,500 1,100,000 LO-UC 80 P-46 OS-06 to BC-19 6 2,500 1,100,000 LO-UC 80 P-47 OS-07 to BC-19 6 2,500 1,100,000 LO-UC 80 P-48 OS-08 to BC-19 6 2,500 1,100,000 LO-UC 80 P-49 OS-09 to BC-19 6 2,500 1,100,000 LO-UC 80 P-51 BC-19 to BS-02 6 4,500 7,600,000 TC-FE 80 P-52 BS-02 to Railcar 6 4,500 7,600,000 TC-FE 80 P-55 BS-02 to Railcar 6 4,500 7,600,000 TC-PE 50 Ch P-56 BS-02 to BC-23 To BS-04 Infrequently used 15 114 1,000,000 TC-PE 50 Ch P-57 BS-04 to Truck Infrequently used 15 114 1,000,000 TC-PE 50 Ch P-59 BC-24 to BS-02 Infrequently used 15 114 1,000,000 TC-PE 50 Ch P-50 BC-24 to BS-02 Infrequently used 15 114 1,000,000 TC-PE 50 Ch P-50 BC-24 to BC-25 to BC-26 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-50 BC-26 to BC-26 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-50 BC-26 to BC-26 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-50 BC-26 to BC-26 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-60 BC-26 to BC-27 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-60 BC-26 to BC-27 Infrequently used 15 1,500 6,000,000 TC-PE 50 Ch P-60 BC-26 to BC-27 Infrequently used 15 Infr	P-33	BC-16 to OS-08		7	1,200	1,100,000	TC-PE	50	
P-36 BC-17 to BC-18	P-34	BC-16 to BC-17			,	2,200,000		50	
P-37 BC-18 to OS-10		BC-17 to OS-09				1,100,000	TC-PE		
P-38   Truck to BS-03   Direct Ship   5   800   1,000,000   UD-PW   80   P-39   BS-03 to CR-03   5   800   1,000,000   TC-FW   90   P-40   CR-03 to BC-20   5   800   1,000,000   TC-FW   90   P-41   BC-20 to CR-04   5   800   1,000,000   TC-FW   90   P-42   CR-04 to BC-21   5   800   1,000,000   TC-FW   90   P-43   BC-21 to DS-07   5   800   1,000,000   TC-FW   90   P-44   BC-21 to BC-16   5   800   1,000,000   TC-PE   50   P-45   OS-05 to BC-19   6   2,500   1,100,000   LO-UC   80   P-46   OS-06 to BC-19   6   2,500   1,100,000   LO-UC   80   P-47   OS-07 to BC-19   6   2,500   1,100,000   LO-UC   80   P-49   OS-09 to BC-19   6   2,500   1,100,000   LO-UC   80   P-49   OS-09 to BC-19   6   2,500   1,100,000   LO-UC   80   P-50   OS-10 to BC-19   6   2,500   1,100,000   LO-UC   80   P-51   BC-19 to BS-02   6   4,500   7,600,000   TC-PE   80   P-52   BS-02 to Railcar   6   4,500   7,600,000   TC-FE   80   P-53   Plant to BC-22   Refuse   15   1,500   6,000,000   TC-PE   50   P-56   BC-23 to BC-23   TC-PE   50   P-57   BS-04 to Truck   15   114   1,000,000   TC-PE   50   P-59   BC-24 to BC-25   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-61   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50   P-60   BC-27 to BC-28   15   1,500   6,000,000   TC-PE   50   P-60   BC-27 to BC-28   15   1,									<u> </u>
P-39   BS-03 to CR-03   5   800   1,000,000   TC-FW   90     P-40   CR-03 to BC-20   5   800   1,000,000   TC-FW   90     P-41   BC-20 to CR-04   5   800   1,000,000   TC-FW   90     P-42   CR-04 to BC-21   5   800   1,000,000   TC-FW   90     P-43   BC-21 to OS-07   5   800   1,000,000   TC-FW   90     P-44   BC-21 to BC-16   5   800   1,000,000   TC-FE   50     P-45   BC-21 to BC-16   5   800   1,000,000   TC-PE   50     P-46   OS-05 to BC-19   6   2,500   1,100,000   LO-UC   80     P-47   OS-07 to BC-19   6   2,500   2,100,000   LO-UC   80     P-48   OS-08 to BC-19   6   2,500   1,100,000   LO-UC   80     P-49   OS-09 to BC-19   6   2,500   1,100,000   LO-UC   80     P-49   OS-09 to BC-19   6   2,500   1,100,000   LO-UC   80     P-50   OS-10 to BC-19   6   2,500   1,100,000   LO-UC   80     P-51   BC-19 to BS-02   6   4,500   7,600,000   TC-FE   80     P-52   BS-02 to Railcar   6   4,500   7,600,000   TC-FE   80     P-53   Plant to BC-22   Refuse   15   1,500   6,000,000   TC-PE   50     P-56   BC-23 to BC-24   15   1,500   6,000,000   TC-FE   80     P-57   BS-04 to Truck   15   114   1,000,000   TC-PE   50     Chep-59   BC-24 to BC-25   15   1,500   6,000,000   TC-PE   50     P-60   BC-25 to BC-26   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-26   15   1,500   6,000,000   TC-PE   50     Chep-61   BC-26 to BC-27   15   1,500   6,000,000   TC-PE   50     Chep-62   BC-27 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-62   BC-27 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-26   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-26   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-26   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-28   15   1,500   6,000,000   TC-PE   50     Chep-60   BC-25 to BC-28   15   1,500   6,00	P-37	BC-18 to OS-10			1,200		8	50	ļ
P-40         CR-03 to BC-20         5         800         1,000,000         TC-FW         90           P-41         BC-20 to CR-04         5         800         1,000,000         TC-FW         90           P-42         CR-04 to BC-21         5         800         1,000,000         TC-FW         90           P-43         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-44         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-44         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-45         OS-05 to BC-19         6         2,500         1,100,000         LO-UC         80           P-46         OS-06 to BC-19         6         2,500         1,100,000         LO-UC         80           P-47         OS-07 to BC-19         6         2,500         1,100,000         LO-UC         80           P-48         OS-08 to BC-19         6         2,500         1,100,000         LO-UC         80           P-49         OS-09 to BC-19         6         2,500         1,100,000         LO-UC         80		Truck to BS-03	Direct Ship		800	1,000,000			
P-41   BC-20 to CR-04   5   800									
P-42         CR-04 to BC-21         5         800         1,000,000         TC-FW         90           P-43         BC-21 to OS-07         5         800         1,000,000         TC-PE         50           P-44         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-45         OS-05 to BC-19         6         2,500         1,100,000         LO-UC         80           P-46         OS-06 to BC-19         6         2,500         1,100,000         LO-UC         80           P-47         OS-07 to BC-19         6         2,500         1,100,000         LO-UC         80           P-48         OS-08 to BC-19         6         2,500         1,100,000         LO-UC         80           P-49         OS-09 to BC-19         6         2,500         1,100,000         LO-UC         80           P-50         OS-10 to BC-19         6         2,500         1,100,000         LO-UC         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         TC-FE         80           P-52         BS-02 to Rallcar         6         4,500         7,600,000         TC-FE         80	P-40	CR-03 to BC-20		5	800	1,000,000	TC-FW	90	
P-43         BC-21 to OS-07         5         800         1,000,000         TC-PE         50           P-44         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-45         OS-05 to BC-19         6         2,500         1,100,000         LO-UC         80           P-46         OS-06 to BC-19         6         2,500         1,100,000         LO-UC         80           P-47         OS-07 to BC-19         6         2,500         2,100,000         LO-UC         80           P-48         OS-08 to BC-19         6         2,500         1,100,000         LO-UC         80           P-49         OS-09 to BC-19         6         2,500         1,100,000         LO-UC         80           P-50         OS-10 to BC-19         6         2,500         1,100,000         LO-UC         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         TC-FE         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         TC-FE         80           P-52         BS-02 to Railcar         6         4,500         7,600,000         TC-FE         50         Ch		BC-20 to CR-04			800			90	
P-44         BC-21 to BC-16         5         800         1,000,000         TC-PE         50           P-45         OS-05 to BC-19         6         2,500         1,100,000         LO-UC         80           P-46         OS-06 to BC-19         6         2,500         1,100,000         LO-UC         80           P-47         OS-07 to BC-19         6         2,500         2,100,000         LO-UC         80           P-48         OS-08 to BC-19         6         2,500         1,100,000         LO-UC         80           P-49         OS-09 to BC-19         6         2,500         1,100,000         LO-UC         80           P-50         OS-10 to BC-19         6         2,500         1,100,000         LO-UC         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         TC-FE         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         TC-FE         80           P-52         BS-02 to Railcar         6         4,500         7,600,000         TC-FE         80           P-53         Plant to BC-22         Refuse         15         1,500         6,000,000         TC-PE         50									
P-45         OS-05 to BC-19         6         2,500         1,100,000         LO-UC         80           P-46         OS-06 to BC-19         6         2,500         1,100,000         LO-UC         80           P-47         OS-07 to BC-19         6         2,500         2,100,000         LO-UC         80           P-48         OS-08 to BC-19         6         2,500         1,100,000         LO-UC         80           P-49         OS-09 to BC-19         6         2,500         1,100,000         LO-UC         80           P-50         OS-10 to BC-19         6         2,500         1,100,000         LO-UC         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         LO-UC         80           P-51         BC-19 to BS-02         6         4,500         7,600,000         LO-UC         80           P-51         BC-19 to BS-02         Refuse         15         1,500         6,000,000         TC-FE         80           P-52         BS-02 to Railcar         6         4,500         7,600,000         TC-FW         90         ch           P-53         Plant to BC-22         Refuse         15         1,500         6,000									
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P-52         BS-02 to Railcar         6         4,500         7,600,000         LO-TC         75           P-53         Plant to BC-22         Refuse         15         1,500         6,000,000         TC-FW         90           P-54         BS-22 to BC-23         15         1,500         6,000,000         TC-PE         50         Ch           P-55         BC-23 to BC-24         15         1,500         6,000,000         TC-PE         50         Ch           P-56         BC-24 to BS-04         Infrequently used         15         114         1,000,000         TC-FE         80           P-57         BS-04 to Truck         15         114         1,000,000         TC-MDH         0           P-58         Truck to Disposal Area         15         114         1,000,000         UL-MDH         0           P-59         BC-24 to BC-25         15         1,500         6,000,000         TC-PE         50         Ch           P-60         BC-25 to BC-26         15         1,500         6,000,000         TC-PE         50         Ch           P-61         BC-26 to BC-27         15         1,500         6,000,000         TC-PE         50         Ch           C									
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P-54 BS-22 to BC-23						1			║.
P-55 BC-23 to BC-24			Refuse						change
P-56 BC-24 to BS-04 Infrequently used 15 114 1,000,000 TC-FE 80 P-57 BS-04 to Truck 15 114 1,000,000 TC-MDH 0 P-58 Truck to Disposal Area 15 114 1,000,000 UL-MDH 0 P-59 BC-24 to BC-25 15 1,500 6,000,000 TC-PE 50 Ch P-60 BC-25 to BC-26 15 1,500 6,000,000 TC-PE 50 Ch P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 Ch P-62 BC-27 to BC-28 15 1,500 6,000,000 TC-PE 50 Ch Ch									change
P-57         BS-04 to Truck         15         114         1,000,000         TC-MDH         0           P-58         Truck to Disposal Area         15         114         1,000,000         UL-MDH         0           P-59         BC-24 to BC-25         15         1,500         6,000,000         TC-PE         50         Ch           P-60         BC-25 to BC-26         15         1,500         6,000,000         TC-PE         50         Ch           P-61         BC-26 to BC-27         15         1,500         6,000,000         TC-PE         50         Ch           P-62         BC-27 to BC-28         15         1,500         6,000,000         TC-PE         50         Ch					•				change
P-58 Truck to Disposal Area 15 114 1,000,000 UL-MDH 0 P-59 BC-24 to BC-25 15 1,500 6,000,000 TC-PE 50 ch P-60 BC-25 to BC-26 15 1,500 6,000,000 TC-PE 50 ch P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 ch P-62 BC-27 to BC-28 15 1,500 6,000,000 TC-PE 50 ch ch			Infrequently used						
P-59       BC-24 to BC-25       15       1,500       6,000,000       TC-PE       50       ch         P-60       BC-25 to BC-26       15       1,500       6,000,000       TC-PE       50       ch         P-61       BC-26 to BC-27       15       1,500       6,000,000       TC-PE       50       ch         P-62       BC-27 to BC-28       15       1,500       6,000,000       TC-PE       50       ch					•				
P-60       BC-25 to BC-26       15       1,500       6,000,000       TC-PE       50       ch         P-61       BC-26 to BC-27       15       1,500       6,000,000       TC-PE       50       ch         P-62       BC-27 to BC-28       15       1,500       6,000,000       TC-PE       50       ch		· · · · · · · · · · · · · · · · · · ·							∥.
P-61 BC-26 to BC-27 15 1,500 6,000,000 TC-PE 50 ch P-62 BC-27 to BC-28 15 1,500 6,000,000 TC-PE 50 ch									change
P-62 BC-27 to BC-28 15 1,500 <b>6,000,000</b> TC-PE <b>50 ch</b>									change
									change
P-63 BC-28 to BC-29 I 15 I 1,500   <b>6.000,000 I</b> TC-PE   <b>50     Ch</b>									change
	P-63	BC-28 to BC-29		15	1,500	6,000,000	TC-PE	50	change

idle at this time unknown - rate ughput reduced

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TP-64	BC-29 to BC-30		15	1,500	6,000,000	TC-PE	50	change rate
TP-65	BC-30 to BC-31		15	1,500	6,000,000	TC-PE	50	change rate
TP-66	BC-31 to BC-32		15	1,500	6,000,000	TC-PE	50	change rate
TP-67	BC-32 to BC-33		15	1,500	6,000,000	TC-MDH	0	change rate
TP-68	BC-33 to BC-34		15	1,500	6,000,000	TC-MDH	0	change rate
TP-69	BC-34 to BC-36		15	1,500	6,000,000	TC-MDH	0	change rate
TP-70	Truck to OS-11	Treatment	4	3	20,000	UL-MDH	0	
TP-71	OS-11 to BS-05	rredillent	4	3	20,000	TC-PW	80	-
TP-72	BS-05 to BC-24		4	3	20,000	TC-PE	50	
			·		20,000			
TP-73	Refuse to BS-06	Maintenance	15	10	20,000	TC-MDH	0	
TP-74	BS-06 to BC-35	Not in Service	15	10	20,000	TC-FE	80	
TP-75	BC-35 to BC-25		15	10	20,000	TC-PE	50	
					20,000			
TP-76	BC-36 to Ground		15	1,500	6,000,000	TC-MDH	0	change rate
	PROPOSED	1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			┨ ँ
TP-77	BC-25 to BC-37		15	1,500	6,000,000	TC-PE	50	PROPOSED
TP-78	BC-37 to BC-38		15	1,500	6,000,000	TC-PE	50	PROPOSED
TP-79	BC-38 to BC-39		15	1,500	6,000,000	TC-PE	50	PROPOSED
TP-80	BC-39 to BC-40		15	1,500	6,000,000	TC-PE	50	PROPOSED
TP-81	BC-40 to BC-41		15	1,500	6,000,000	TC-PE	50	PROPOSED
TP-82	BC-41 to Ground		15	1,500	6,000,000	TC-MDH	0	PROPOSED
					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
TP-83	BC-01 to BC-42		8	2,000	2,000,000	TC-FE	80	PROPOSED
TP-84	BC-42 to BC-43		8	2,000	2,000,000	TC-FE	80	PROPOSED
TP-85	BC-43 to OS-02		8	2,000	2,000,000	TC-PE	50	PROPOSED
TP-86	BC-42 to BC-44		8	2,000	2,000,000	TC-FE	80	PROPOSED
TP-87	BC-44 to BC-09		8	2,000	2,000,000	TC-FE	80	PROPOSED
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p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed	20
	exceeds 12 mph at the mean pile height	

Source	Stockpile	Silt	Stockpile	Control	Control
ID No.	Description	Content of	base area	Device	Efficiency
		Material %	Max. sqft	ID Number	%
OS-01	Raw Coal	5	88,869	SW-ST	75
OS-02	Raw Coal	5	88,869	SW-ST	75
OS-03	Raw Coal	5	88,869	SW-ST	75
OS-03	Raw Coal	5	88,869	SW-ST	75
OS-04	Clean Coal	3.5	88,869	SW-ST	75
OS-05	Clean Coal	3.5	88,869	SW-ST	75
OS-06	Clean Coal	3.5	88,869	SW-ST	75
OS-07	Clean Coal	3.5	88,869	SW-ST	75
OS-08	Clean Coal	3.5	88,869	SW-ST	75
OS-09	Clean Coal	3.5	88,869	SW-WS	75
OS-10	Clean Coal	3.5	88,869	SW-WS	75
OS-11	Sand/gravel	7	500	SW-WS	75

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

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
$M_{dry} =$	surface material moisture content (%) - dry conditions	0.2

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	RC BS-01 2,000,000	18	50	15	1	4.56	40,000	HR-WS	70
3	Refuse 1,000,000	14	40	10	1	2.85	25,000	HR-WS	70
<u>4</u> 5	Dozers (pushing 12,000,000)	2	40	5	0.01	34.24	300,000	HR-WS	70
6									
8									

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

sL=	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

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	Raw Coal In	2000000	50	1	4.56	40,000	HR-WS	70
2	Direct Ship Clean Coal In	1000000	50	1	2.28	20,000	HR-WS	70
3	Sand/ Gravel 20,000 tons		25	1	0.09	800	HR-WS	70
4								
5								
6								
7								
8		·						