

West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin III
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
Herndon Processing Company, LLC
Keystone #2 Preparation Plant, Bud, WV
R30-10900002-2006

John A. Benedict
Director

Issued: March 28, 2006 • Effective: April 11, 2006
Expiration: March 28, 2011 • Renewal: September 28, 2010

Permit Number: **R30-10900002-2006**
Permittee: **Herndon Processing Company, LLC**
Facility Name: **Keystone #2 Preparation Plant**
Mailing Address: **Post Office Box 399, Bud, West Virginia 24716**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Herndon, Wyoming County, West Virginia
Mailing Address:	State Route 10, Herndon, West Virginia 24726
Telephone Number:	(304) 249-4565
Type of Business Entity:	LLC
Facility Description:	The Keystone No. 2 Preparation Plant is a wet wash coal preparation plant with a thermal dryer. The facility has the ability to screen, break/size, wash, thermally dry, store and load out/in coal.
SIC Codes:	Primary 1221; Secondary N/A; Tertiary N/A
UTM Coordinates:	467.79 km Easting • 4152.26 km Northing • Zone 17

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Equipment Description	Design Capacity	Fugitive Dust Control System/ Control Device	Year Installed	Control Device ID
002	SC1	Bar Screen	500 TPH	FE	1965	N/A
003	RB1	Prep Plant Rotary Breaker	500 TPH	FE/FE	1965	N/A
006	TD1	Thermal Dryer	350 TPH	MCS/WSS	1965	MCS/WS
CONVEYOR BELTS						
001	BC-1	Slope Belt	500 TPH	FE	1965	N/A
001	BC-2	Raw Coal Conveyor	500 TPH	FE	1965	N/A
001	BC-3	Plant Feed Conveyor	500 TPH	FE	1965	N/A
001	BC-4	Refuse Belt	500 TPH	PE	1965	N/A
001	BC-5	Secondary Fuel Belt	200 TPH	PE	1965	N/A
001	BC-6	C.C. Collecting Belt	500 TPH	PE	1965	N/A
001	BC-7	Dryer Feed Belt	500 TPH	PE	1965	N/A
001	BC-8	Dryer Coal Belt	500 TPH	PE	1965	N/A
001	BC-9	Storage Belt	500 TPH	PE	1965	N/A
001	BC-10	Loading Belt	700 TPH	PE	1965	N/A
001	BC-11	Raw Coal Transfer	500 TPH	PE	1997	N/A
001	BC-12	Silo 2 Reclaim	500 TPH	PE	1997	N/A
STORAGE						
S1	001	Raw Coal Silo	2,500 Tons	NE	1965	N/A
S2	001	Clean Coal Silo	10,000 Tons	NE	1965	N/A
S3	001	Raw Coal Silo 2	2,500 Tons	NE	1997	N/A
B1	001	Refuse Bin	300 Tons	NE	1965	N/A
B2	001	Secondary Fuel bin	200 Tons	NE	1965	N/A
B3	001	Clean Coal Loading Bin	30 Tons	NE	1965	N/A
B4	001	Truck Dump Hopper	50 Tons	NE	1965	N/A
004	OS1	Raw Coal Stockpile	150,000 Ft ²	NE	1965	N/A
HAULROADS						
005	UPR1	Haulroad into Raw Coal Stockpile	N/A	RWMW	1965	N/A
		Unpaved 0.50 mi. RT.				
005	UPR2	Haulroad to Truck Dump	N/A	RWMW	1965	N/A
		Paved 0.56 mi. RT.				
005	UPR3	Refuse Haulroad	N/A	RWMW	1965	N/A
		Unpaved 1.0 mi. RT.				

Transfer points (TP) have the same type of fugitive dust control system as the associated conveyors unless otherwise noted. Fugitive Dust Control System/Control Device abbreviations: FE = Full Enclosure, FE/FE = Full Enclosure in Building, PE = Partial Enclosure, ST = Stacking Tube, MC = Moisture Content, UC = Underground reclaim feeder, TC = Telescoping Chute, EM = Enclosure and evacuation to mechanical collector, ES = Enclosure and evacuation to a scrubber, NE = No Equipment, RWMW = Water Truck with Manufactured pressurized sprays, WSS = Flooded Disc Scrubber, MCS = Multiclone System, ME = Mist Eliminator.

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source
CBI	Confidential Business Information		Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations		
CO	Carbon Monoxide	pph	Pounds per Hour
C.S.R. or CSR	Codes of State Rules	ppm	Parts per Million
DAQ	Division of Air Quality	PSD	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower		
lbs/hr or lb/hr	Pounds per Hour	SO₂	Sulfur Dioxide
LDAR	Leak Detection and Repair	TAP	Toxic Air Pollutant
M	Thousand	TPY	Tons per Year
MACT	Maximum Achievable Control Technology	TRS	Total Reduced Sulfur
		TSP	Total Suspended Particulate
MM	Million		
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	USEPA	United States Environmental Protection Agency
MMCF/hr or mmcf/hr	Million Cubic Feet Burned per Hour	UTM	Universal Transverse Mercator
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	VEE	Visual Emissions Evaluation
NESHAPS	National Emissions Standards for Hazardous Air Pollutants	VOC	Volatile Organic Compounds
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

- 2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
 - b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
 - c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 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.
[45CSR§6-3.1.]
- 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.
[45CSR§6-3.2.]
- 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.
[40 C.F.R. 61 and 45CSR15]
- 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.
[45CSR§4-3.1 State-Enforceable only.]
- 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.
[45CSR§11-5.2]
- 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.
[W.Va. Code § 22-5-4(a)(14)]
- 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.

[40 C.F.R. 82, Subpart F]

- 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.

[40 C.F.R. 68]

- 3.1.9. 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.

[45CSR§5-3.4.]

- 3.1.10. 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.

[45CSR§5-6.1.]

- 3.1.11. 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.

[45CSR§5-6.2.]

- 3.1.12. 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.

[45CSR16, 40 C.F.R § 60.252 (c), 40 C.F.R § 60.11 (c), Transfer Points: (T29, T30, T31), Conveyors: (BC-11, BC-12), Silo: (S3)]

- 3.1.13. At all times, including periods of startup, shutdown, and malfunction, owners and operators 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[45CSR16, 40 C.F.R § 60.11 (d), Transfer Points: (T29, T30, T31), Conveyors: (BC-11, BC-12), Silo: (S3)]

- 3.1.14. The throughput of conveyors BC-11 and BC-12 shall not exceed 3,000,000 TPY. Compliance with the throughput limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the coal throughput at any given time for the previous twelve (12) consecutive months.

[45CSR§30-12.7., Belt Conveyors BC-11 and BC-12]

- 3.1.15. 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.

[45CSR§5-7.1., Refuse Storage Piles]

- 3.1.16. 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.
[45CSR§5-7.2., Refuse Storage Piles]
- 3.1.17. 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.
[45CSR§5-7.3., Refuse Storage Piles]
- 3.1.18. 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.
[45CSR§5-7.4., Refuse Storage Piles]
- 3.1.19. 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.
[45CSR§5-7.5., Refuse Storage Piles]
- 3.1.20. 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.
[45CSR§5-7.6., Refuse Storage Piles]
- 3.1.21. Garbage, trash, household refuse and like materials shall not be deposited on or near any coal refuse disposal area.
[45CSR§5-7.7., Refuse Storage Piles]
- 3.1.22. 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.
[45CSR§5-7.8., Refuse Storage Piles]
- 3.1.23. 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.
[45CSR§5-8.3., Refuse Storage Piles]

3.2. Monitoring Requirements

1. The permittee shall conduct monitoring/recordkeeping/reporting as follows [Not required for open stockpile (OS-1), Refuse Disposal Area and haulroads (UPR1, UPR2, and UPR3)]: (NOTE: See Section 4.0. for the Thermal Dryer Unit Requirements).
 - 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 emissions unit 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.

If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the emission unit, 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 required under condition Section 3.2.1.a. if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.
 - c. If the visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a given emission unit, 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 or equal to 50 percent of the allowable visible emissions requirement for the emission unit 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.
 - 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.

[45CSR§30-5.1.c.]

- 3.2.2. 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 non-scheduled 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.

[45CSR§30-5.1.c.]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** 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:
- 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.
 - 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.
 - c. All periodic tests to determine mass emission limits from or 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.

[WV Code § 22-5-4(a)(15) and 45CSR13]

3.4. Recordkeeping Requirements

- 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.

[45CSR§30-5.1.c.2.A.]

- 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.

[45CSR§30-5.1.c.2.B.]

- 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.

[45CSR§30-5.1.c. State-Enforceable only.]

- 3.4.4. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility.

[45CSR§30-5.1.c.]

- 3.4.5. For the purposes of determining compliance with maximum throughput limit set forth in 3.1.14, the applicant shall maintain certified daily and monthly records of coal throughput on conveyors BC-11 and BC-12. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his duly authorized representative upon request.

[45CSR§30-12.7., Belt Conveyors BC-11 and BC-12]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

[45CSR§30-5.1.c.3.E.]

- 3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.
- 3.5.8. **Deviations.**
- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

- 3.6.1. None

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

45CSR§10-5. (08/31/2000)	The thermal dryer is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.
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4.0. Source-Specific Requirements [Thermal Dryer (006) and Emission ID: TD1]

4.1. Limitations and Standards

- 4.1.1. No person shall cause, suffer, allow or permit emission of particulate matter into the open air from any stack which is twenty percent (20%) opacity or greater, except as noted in Section 4.1.2 [45CSR§5-3.2].
[45CSR§5-3.1.]
- 4.1.2. The provisions of Section 4.1.1 [45CSR§5-3.1] shall not apply to particulate matter emitted, which is less than sixty percent (60%) opacity for a period or periods aggregating no more than five (5) minutes in any sixty (60) minute period during operation.
[45CSR§5-3.2.]
- 4.1.3. The provisions of Sections 4.1.1 and 4.1.2 [45CSR§§5-3.1 and 5-3.2] shall not apply to particulate matter emitted, which is less than sixty percent (60%) opacity for a period of up to eight (8) minutes in any operating day for the purposes of building a fire of operating quality in the fuel burning equipment of a thermal dryer.
[45CSR§5-3.3.]
- 4.1.4. The maximum allowable particulate loading for the thermal dryer shall not exceed 0.12 grains per cubic foot.
[45CSR§§5-4.1. and 5-4.1.b. and Appendix 1.1.]
- 4.1.5. No person shall circumvent this rule by adding additional gas to any dryer exhaust or group of dryer exhausts for the purpose of reducing the grain loading.
[45CSR§§5-4.2.]
- 4.1.6. No person shall cause, suffer, allow or permit the exhaust gases from a thermal dryer to be vented into the open air at an altitude of less than eighty (80) feet above the foundation grade of the structure containing the dryer or less than ten (10) feet above the top of said structure or any adjacent structure, whichever is greater. In determining the desirable height of a plant stack, due consideration shall be given to the local topography, meteorology, the location of nearby dwellings and public roads, the stack emission rate and good engineering practice as set forth in 45CSR20.
[45CSR§5-4.3.]
- 4.1.7. The owner or operator of a thermal dryer shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the temperature of the gas stream at the exit of the thermal dryer. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus three degrees Fahrenheit ($\pm 3^{\circ}\text{F}$) and be recalibrated as necessary, but at least once annually.
[45CSR§§5-4.1.b. and Appendix 2.1 and 2.3.]
- 4.1.8. The owner or operator of a thermal dryer shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the pressure loss in the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber which is atmospheric. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus one inch (1 in.) water gauge and be recalibrated as necessary, but at least once annually.
[45CSR§§5-4.1.b. and Appendix 2.2.a and 2.3.]

4.1.9. The owner or operator of a thermal dryer shall install, calibrate, maintain, and continuously operate a monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus five percent ($\pm 5\%$) water gauge and be recalibrated as necessary, but at least once annually.

[45CSR§§5-4.1.b., Appendix 2.2.b. and 2.3.]

4.1.10. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1.a through 4.1.e.

[45CSR§§10-4.1.]

4.2. Monitoring Requirements

4.2.1. The permittee shall conduct monitoring/recordkeeping/reporting for the thermal dryer as follows

a. A visible emissions evaluation shall be conducted for the thermal dryer unit(s) 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 the thermal dryer unit(s).

b. The thermal dryer unit(s) included in this permit shall be observed visually on a daily basis during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions by conducting monthly 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.

If visible emissions from the thermal dryer unit(s) is observed during these daily observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the thermal dryer unit(s), 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 fourteen (14) days from the time of the observation. A Method 9 evaluation shall not be required under condition Section 4.2.1.b if the visible emissions condition is corrected in a timely manner; the thermal dryer unit(s) is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.

c. If any visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a thermal dryer unit, a visible emissions evaluation shall be performed for that unit at least once every consecutive seven (7) day period in accordance with 40 C.F.R. 60 Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than or equal to 50 percent of the allowable visible emissions requirement for the thermal dryer unit for 3 consecutive evaluation periods, the thermal dryer may comply with the visible emissions testing requirements of Section 4.2.1.b in lieu of those established in this condition.

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 daily inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.

- e. If any visible emissions evaluation performed in accordance with 40C.F.R.60 Appendix A, Method 9 indicates a visible emissions observation of twenty percent (20%) or greater, the minimum total time of the observations for that emission unit shall be sixty (60) minutes. This Section e. shall not apply if any visible emissions observation is sixty percent (60%) or greater.
- f. The thermal dryer unit(s) included in this permit shall be observed visually during periods of building a fire of operating quality and minimization efforts taken to ensure particulate matter emissions of sixty percent (60 %) opacity for a period of up to 8 minutes in any operating day is not exceeded during such activities.

[45CSR§30-5.1.c.]

- 4.2.2. At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of 45CSR10. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of 45CSR10.

[45CSR§10-8.2.a.]

- 4.2.3. Prior to the installation of calibrated stack gas monitoring devices, sulfur dioxide emission rates shall be calculated on an equivalent fuel sulfur content basis.

[45CSR§10-8.2.b.]

- 4.2.4. Monitoring plans pursuant to 45CSR§10-8.2.c was approved on June 8, 2001. See Appendix A.

[45CSR§10-8.2.c.2.]

4.3. Testing Requirements

- 4.3.1. Any stack venting thermal dryer exhaust gases and/or air table exhaust gases or exhaust gases or air from any air pollution control device shall include straight runs of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. Flow straightening devices shall be required where cyclonic gas flow would exist in the absence of such devices.

[45CSR§5-12.6.]

- 4.3.2. Initially, the permittee shall conduct tests to determine compliance with the particulate matter (PM) emission limitations in Sections 4.1.4 (Thermal Dryer) within 180 days of the effective date of this permit. If the Thermal Dryer is inactive on the effective date of this permit, the permittee shall conduct tests to determine compliance with the particulate matter (PM) emission limitations in Sections 4.1.4 within 180 days after resuming activity. The permittee shall use Method 5 or an alternative method approved by the Director for such testing. If an alternative testing method were approved which effectively replaces Method 5, a permit revision would be required in accordance with 45CSR§30-6.4. or 45CSR§30-6.5 as applicable. Parameter indicator ranges shall be established for the exit temperature of the thermal dryer, water pressure to the control equipment, and the pressure loss of the inlet airflow to the scrubber. The permittee shall establish these indicator ranges and operate within these ranges to provide a reasonable assurance that the thermal dryer unit is in compliance with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken.

The permittee shall conduct a stack test, establish parameter indicator ranges, and furnish the Director a written report of the results of such testing and established indicator ranges. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of Method 9;
- b. Amount of coal burned and the amount of coal dried;
- c. Coal drying temperature and residence time in the dryer;
- d. Temperature of the gas stream at the exit of the thermal dryer;
- e. Flow rate through the dryer and converted to dry standard cubic feet;
- f. Water pressure to the control equipment; and
- g. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the control equipment.

Subsequent testing to determine compliance with the particulate loading limitations of Section 4.1.3 shall be conducted in accordance with the schedule set forth in the following table:

Test	Test Results	Testing Frequency
Initial	≤50% of particulate loading limit	Once/5 years
Initial	between 50% and 90 % of particulate loading limit	Once/3 years
Initial	≥90% of particulate loading limit	Annual
Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years
Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of particulate loading limit	Once/5 years
Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates 50% of particulate loading limit	Once/5 years
Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual
Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years
Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual

[45CSR§30-5.1.c.]

4.3.3. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports to be located in such manner as the Director 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.

[45CSR§10-8.1.a.]

4.3.4. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in 45CSR§10-3.

[45CSR§10-8.1.b.]

4.4. Recordkeeping Requirements

4.4.1. The permittee shall demonstrate compliance with 45CSR§10-4.1 by complying with the stipulations as stated below:

a. The owner or operator of a thermal dryer shall meet the following minimum coal sampling requirements:

1. The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the dryer may be obtained.
2. Coal shall be sampled at least three (3) times per day and at least once per eight (8) hour period.
3. Minimum sample size shall be five hundred (500) grams.
4. Samples shall be composited and analyzed at the end of each calendar month

b. Coal samples shall be prepared for analysis in accordance with procedures specified in ASTM D2013-86. "Standard Method of Preparing Coal Samples for Analysis."

c. The heat content of coal samples shall be determined in accordance with procedures specified in ASTM D2015-85, "Standard Test Method for Gross Calorific Value of Solid fuel by the Adiabatic Bomb Calorimeter," or ASTM D5865, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isotherm Bomb Calorimeter."

d. The sulfur content of coal samples shall be determined in accordance with procedures specified in ASTM D3177-84, "Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke", or ASTM D4239-85, "Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods."

e. The owner or operator of a thermal dryer shall calculate the SO₂ emissions for each month based on the design heat input of 105 mmBtu/hr and the results of the analyses for sulfur and heat content for the month according to the following equations:

Equation 1:

$$\text{SO}_2 \text{ (LB/hr)} = 2 \times (\text{MFR/ HV}) \times \text{S}$$

Where: MFR = Design heat input of 105,000,000 Btu/hr
HV = Heating value of fuel in Btu/LB
S = Percent sulfur content of fuel divided by 100
2 = 2 LB SO₂ per 1LB S

Equation 2:

$$\text{SO}_2 \text{ (ppmv)} = \text{SO}_2 \text{ (LB/hr)} \times (385/64) \times (1/120,702) \times (1/60) \times 10^6$$

Where: SO₂ (ppmv) = Sulfur dioxide concentration by volume
SO₂ (LB/hr) = Sulfur dioxide weight rate
385 = Molar volume in scf/LB-mole
64 = Molecular weight of Sulfur dioxide in LB/LB-mole
120,702 = Exhaust fan volumetric exhaust flow rate in scfm
60 = Minutes per hour

The measurement of fuel flow on this particular thermal dryer is not easily accomplished. Therefore by using the equations in this section, the maximum design heat input, and minimum volumetric gas flow rate, if compliance with 45CSR§10-4.1 is shown with these “worse case” conditions then compliance at lower heat inputs and/or higher stack gas flow rates will be ensured.

- g. These records shall be maintained on site for a period of no less than five (5) years.

[45CSR§30-5.1.c.]

4.5. Reporting Requirements

- 4.5.1. See Section 3.4.

4.6. Compliance Plan

- 4.6.1. None

5.0. Compliance Assurance Monitoring • Multiclone System

5.1. Emission Unit

5.1.1. Thermal Dryer

5.2. Control Device

5.2.1. Multiclone System is a precleaner used to reduce the large particle size grain loading before entry into the wet scrubber. The multiclone consists of a battery of thirty (30) twenty-four (24) inch diameter cyclones. The multiclone arrangement consists of five (5) parallel banks of cyclones with six (6) cyclones in each series and two tubes omitted.

5.3. CAM Emissions Limit

Particulate Matter: Capture efficiency of 100% and a control efficiency of 40%

5.4. Monitoring Approach

5.4.1. Opacity monitoring (see 4.2.1).

5.4.2. Pressure drop of 4.75 inches H₂O.

5.4.3. Inlet temperature is less than or equal to 175°F.

5.5. Response to Excursion

5.5.1. Lower temperature values do not pose an emission issue with dryer. During normal operations, the presence of opacity shall be investigated and corrected as soon as practicable. All excursions shall be documented and maintained for a period of not less than five (5) years and shall be made available to the Director or his authorized representative.

5.5.2. Being outside these ranges does not automatically indicate there are actual emissions issues with the thermal dryer stack and performance. Furthermore, the ranges are qualified with a time frame prior for record keeping, as a variance outside the range does not instantaneously provide a problem for the thermal dryer emissions or normal operating conditions.

5.6. Recordkeeping and Reporting

5.6.1. Thermal dryer exit temperature – up to 175°F with record keeping after 10 minutes.

5.6.2. A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions will be maintained.

5.6.3. A record of the number, duration, and cause for the downtime of the monitor itself shall be kept. This excludes downtime for calibration checks. This document should also include the measures taken to correct the excursion

- 5.6.4. Records are maintained with manual reading and recording at least once every 12 hours or once per shift.
- 5.6.5. The permittee shall maintain maintenance records on the Multiclone System.

[40 C.F.R. 64 and 45CSR§30-5.1.c.1.B.]

6.0. Compliance Assurance Monitoring • Wet Scrubber Collection Device

6.1. Emission Unit

- 6.1.1. Thermal Dryer

6.2. Control Device

- 6.2.1. The wet scrubber collection device uses the impaction energy and capture ability of water particles in order to remove particulate matter from the gas stream. The scrubber design is an Impinjet wet scrubber.

6.3. CAM Emissions Limit

- 6.3.1. Particulate Matter: Capture efficiency of 100% and a control efficiency of 99.25%
- 6.3.2. Sulfur Dioxide: Capture efficiency of 100% and a control efficiency of 70%

6.4. Monitoring Approach

- 6.4.1. Opacity monitoring (see 4.2.1).
- 6.4.2. Water pressure to the control equipment – 20 to 34 psi.
- 6.4.3. Pressure loss of the inlet airflow to the scrubber – 4.0 to 8.0 inches H₂O.
- 6.4.4. The pressure drop across the scrubber in 5.5 inches of H₂O.

6.5. Response to Excursion

- 6.5.1. Lower temperature values do not pose an emission issue with dryer. During normal operations, the presence of opacity shall be investigated and corrected as soon as practicable. All excursions shall be documented and maintained for a period of not less than five (5) years and shall be made available to the Director or his authorized representative.
- 6.5.2. Being outside these ranges does not automatically indicate there are actual emissions issues with the thermal dryer stack and performance. Furthermore, the ranges are qualified with a time frame prior for record keeping, as a variance outside the range does not instantaneously provide a problem for the thermal dryer emissions or normal operating conditions.

6.6. Recordkeeping and Reporting

- 6.6.1. Record keeping of water pressure to the control equipment to the scrubber after 10 minutes.
- 6.6.2. Records keeping of pressure less of the inlet air flow to the scrubber after 10 minutes.
- 6.6.4. Records are maintained with manual reading and recording at least once every 12 hours or once per shift.

[40 C.F.R. 64 and 45CSR§30-5.1.c.1.B.]

APPENDIX A

45CSR10 Monitoring Plan

0 Thermal Dryer (130 MMBtu/hr – Fire Box)



Office of Air Quality
7012 MacCorkle Avenue, SE
Charleston, WV 25304-2943
Telephone Number: (304) 926-3730
Fax Number: (304) 926-3739

West Virginia Division of Environmental Protection

Bob Wise
Governor

Michael O. Callaghan
Director

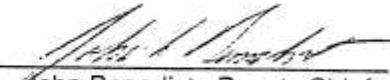
June 8, 2001

Mr. Harold C. Collins
Herndon Processing Company
Keystone No. 2 Preparation Plant
P.O. Box 399
Bud, WV 24716

Subject: Notice of Monitoring Plan Approval

The Office of Air Quality is pleased to inform you that the monitoring plan submitted pursuant to Regulation 10, Section 6.4 for Keystone No. 2 Preparation Plant of Herndon Processing Company for the Thermal Dryer has been approved effective on June 8, 2001

APPROVED:


John Benedict, Deputy Chief

Date: June 8, 2001

cc: James F. Jarret, ERSG

"To use all available resources to protect and restore West Virginia's environment in concert with the needs of present and future generations."



West Virginia
Division of
Environmental Protection



Environmental Regulatory Service Group, Inc.

WV DEPT OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

452 Eighth Street
St. Albans, West Virginia 25177
Telephone: 304-722-2100 Fax: 304-722-5654

2001 APR 10 P 4: 11

April 10, 2001

ERSG Project 01-161-10

RECEIVED

Hand Delivered

Mr. Edward "Skipp" Kropp, Chief
WVDEP, Office of Air Quality
7012 MacCorkle Avenue
Charleston, West Virginia 25304

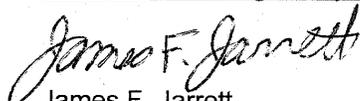
Regulation 45CSR10 SO₂ Monitoring Plan
Keystone No. 2 Preparation Plant

Dear Mr. Kropp:

Environmental Regulatory Service Group, Inc. (ERSG), on behalf of Herndon Processing Company (Herndon), Keystone No. 2 Preparation Plant, located at Bud, West Virginia, is submitting the required SO₂ monitoring plan per 45CSR10. Worse calculations based on maximum heat input, minimum heating value of fuel, and minimum flow rate showed the maximum allowed percent sulfur would be 11.5 for this unit to reach the 2,000 ppm limit. This is not a realistic percent sulfur content for bituminous coal. A more realistic maximum of 2 percent was used for the worse case calculations, in which the maximum SO₂ concentration is 350 ppm. This proves that Herndon should never have any excursions above 45CSR10 limits. Herndon shall follow the guidelines of this monitoring plan until such time that the submitted plan is approved.

If you have any questions, please call me at (304) 722-2100.

Sincerely,
Environmental Regulatory Service Group, Inc.


James F. Jarrett
Engineer

Cc: Mr. Harold C. Collins, Herndon Processing

E-mail: ersg@citynet.net

Web site: www.ersginc.com

SO₂ MONITORING PLAN

FOR:
TITLE 45
LEGISLATIVE RULE
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY
SERIES 10
TO PREVENT AND CONTROL AIR POLLUTION
FROM THE EMISSION OF SULFUR OXIDES

APPLICANT:

10900002
Herndon Processing Company
Keystone No. 2 Preparation Plant
Post Office Box 399
Bud, West Virginia 24716

FACILITY LOCATION:

Herndon, Wyoming County
UTM Coordinates are ZONE: 17
EASTING:467.79 km
NORTHING:4152.26 km

FACILITY DESCRIPTION:

The Keystone No. 2 Preparation Plant has the ability to screen, crush/size, wash, thermally dry, store, and load in/out coal. The facility has the potential to operate seven (7) days per week, twenty four (24) hours per day and fifty-two (52) weeks per year.

The 1965 vintage FMC 140 ft² deck thermal dryer (fluidized bed) is rated at 350 tons per hour of wet coal. The process heat is supplied by a stoker fuel furnace burning 1-¼" X 0" dry coal, which is rated at 105 mmBTU/hr. The combustion products are sent through a multi-clone, then exhausted through a flooded disc scrubber with mist eliminator. The multi-clone system is a pre-cleaner used to reduce the large particle size grain loading before entry into the wet scrubber. The multi-clone consists of a battery of 30 twenty-four inch cyclones. The multi-clone arrangement consists of five (5) parallel banks of cyclones with six (6) cyclones in each series and two tubes omitted. The wet scrubber collection device uses the impaction energy of water droplets in order to remove particulate matter from the gas stream. The design is a "W.W. Sly" ImpinJet wet scrubber. The scrubber also removes a portion of sulfur dioxide and nitrogen oxides emissions. The exhaust stack is equipped with a mist eliminator. This device prohibits water droplets from the wet scrubber into the atmosphere. Typical, fuel firing analysis yields 0.54 percent sulfur, 9 percent ash, 14 percent moisture and 4 percent fines. The drier exhaust is vented thru two (2) identical 12-ft. diameter stacks.



APPLICABILITY:

It was determined through the agency that driers are defined as manufacturing process source operations and not as fuel burning units within the definition and intent of Regulation 10. With this rule interpretation, thermal driers must comply with Regulation 10 Section 4.1. The only exemption applies to units with a potential to emit less than 500 lbs/yr of sulfur dioxide. To show compliance with 45CSR10.4.1, the company shall conduct fuel sampling analysis of the coal on a monthly basis. Fuel sampling is a reasonable way of testing for sulfur content and is an acceptable testing method.

MONITORING PLAN:

45CSR10.6.4. An approved monitoring plan shall contain, at a minimum, the following items:

45CSR10.6.4.a. A list of parameters to be monitored;

1. Coal Samples shall be prepared for analysis in accordance with procedures specified in ASTM D2013, "Standard Method of Preparing Coal Samples for Analysis."
2. The heat content of coal samples shall be determined in accordance with procedures specified in ASTM D2015, "Standard Test Method for Gross Calorific Value of Solid fuel by the Adiabatic Bomb Calorimeter," or ASTM D5865, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter."
3. The sulfur content of coal samples shall be determined in accordance with procedures specified in ASTM D3177, "Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke using High Temperature Tube Furnace Combustion Methods."

45CSR10.6.4.b. The monitoring method and frequency for each parameter to be monitored;

1. The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the dryer may be obtained.
2. Coal shall be sampled at least three (3) times per day and at least once per eight (8) hour period during fuel burning operations.
3. Minimum sample size shall be five hundred (500) grams.
4. Samples shall be composited and analyzed at the end of each calendar month.



45CSR10.6.4.c. The compliance range for each parameter to be monitored;

Acceptable Heat Content range: 10,000 – 16,000 BTU/lb (dry basis)
Acceptable Sulfur Content range: 2% max. For this unit to reach the 2000 ppm limit, the %S would have to reach 11.5%, which is not realistic.

45CSR10.6.4.d. An explanation of how the parameters to be monitored were chosen, and how they are indicative of compliance;

By using the equations in this monitoring plan, the maximum design heat input, and minimum volumetric gas flow rate, if compliance with 45CSR10.4.1 is shown with these “worse case” conditions, then compliance at lower heat inputs and/or higher stack gas flow rates will be ensured.

The SO₂ emissions shall be calculated for each month based on the estimated exhaust flowrate of the dryer and results of the analyses for sulfur and heat content for the month according to the following equations:

Equation 1:

$$SO_2 \text{ (lbs / hour)} = 2 \times S \times \frac{MFR}{HV}$$

Where: SO₂(lb/hr) = Sulfur Dioxide mass emission
MFR = Design heat input of thermal dryer (105,000,000 BTU/hr)
HV = Heating value of fuel (BTU/lbs.)
S = Percent sulfur content of fuel divided by 100
2 = 2 lbs. SO₂ per 1 lbs. S

Equation 2:

$$SO_2 \text{ (ppmv)} = SO_2 \text{ (lb / hr)} \times \frac{385}{64} \times \frac{1}{Flow \text{ (scfm)}} \times \frac{1}{60} \times 10^6$$

Where: SO₂(ppmv) = Sulfur dioxide concentration by volume, wet basis
SO₂(lb/hr) = Sulfur Dioxide mass emission
385 = Molar volume in scf/lb-mole
64 = Molecular weight of SO₂ in lb/lb-mole
Flow_(scfm) = Exhaust fan volumetric flow rate (120,228 scfm)
60 = Minutes per hour

45CSR10.6.4.e. An explanation of how the compliance ranges were established;

The compliance ranges were provided by the manufacturer. A calculation was performed based on worse case conditions. The results showed that based on the minimum required flow rate, minimum heat content of the fuel, and maximum heat input of the burners, the maximum allowed percent sulfur of the fuel was 11.5%, which equals the 2000 ppm SO₂ limit. This is not a realistic sulfur content of bituminous coal. A more realistic maximum of two (2) percent sulfur was used and with this data the SO₂ ppm calculates to 350 ppm, which is well below the 2000 ppm SO₂ limit.



45CSR10.6.4.f. A schedule for installation and operation of any additional monitoring equipment installed for purposes of complying with this rule;

None

45CSR10.6.4.g. A response plan to be implemented during excursions; and

The dryer will not operate properly unless the compliance ranges are met. Therefore, the dryer will be shutdown until proper fuel is available. The dryer can burn coal with a maximum 11.5% sulfur, before reaching the excursion level. This level is not realistic for bituminous coal and should never occur.

45CSR10.6.4.h. A proposed compliance testing schedule for manufacturing process source(s) and combustion source(s), as applicable.

Testing of coal samples will be performed on a monthly basis. Coal samples will be taken on a daily basis. Compliance will be proven through recordkeeping, sampling, analysis, and calculations. Stack testing will be performed as required.

The logo for ERSG, consisting of the letters E, R, S, and G in a stylized, bold, outlined font.

Sulfur Dioxide Calculations - Worse Case

Client:	Herndon Processing
Max. Sulfur	2 %
Min. GCV	10,000 BTU/lb
Max. Heat Input	105,000,000 BTU/hr
SO ₂ emission	420.00 lb/hr
Ts	170 F
	630 R
Psa	26.83 inHg @1800 ft. elev. above sea level & -17.6 static pressure
Design Fan Inlet Flow	160,000 acfm
	120,228 scfm (to EPA std. conditions)
SO ₂ concentration	<input type="text" value="349.9"/> ppm, wet basis



