

**West Virginia Department of Environmental Protection  
Division of Air Quality**

Earl Ray Tomblin  
Governor

Randy C. Huffman  
Cabinet Secretary

# Permit to Operate



Pursuant to  
**Title V**  
of the Clean Air Act

*Issued to:*  
**Continental Brick Company**  
**Martinsburg Facility/Martinsburg, WV**  
**R30-00300002-2014**

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*William F. Durham*  
*Director*

*Issued: August 21, 2014 • Effective: September 4, 2014*  
*Expiration: August 21, 2019 • Renewal Application Due: February 21, 2019*

Permit Number: **R30-00300002-2014**  
Permittee: **Continental Brick Company**  
Facility Name: **Martinsburg Facility**  
Permittee Mailing Address: **154 Charles Town Road, Martinsburg, WV 25405**

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*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.*

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Facility Location:	Martinsburg, Berkeley County, West Virginia
Facility Mailing Address:	Same as above
Telephone Number:	(304) 263-6974
Type of Business Entity:	Corporation
Facility Description:	The Martinsburg Facility is a face brick manufacturing operation which includes quarry to final brick production and storage.
SIC Code:	Primary 3251
UTM Coordinates:	245.4 km Easting • 4,368.7 km Northing • Zone 18

Permit Writer: Rex Compston, P.E.

*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.*

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*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 and Active R13, R14, and R19 Permits

### 1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
<b>Raw Feed, Grinding Building, and Plant Feed System</b>					
001	1S	Open Stockpile No. 1 – OS1	1981	75 tph/153,300 tpy	W
002	2S	Truck-Endloader Fed Bin – B1	1981	75 tph/153,300 tpy	FE
003	3S	Chain Conveyor No. 1 – CC1	1981	75 tph/153,300 tpy	FE
004	4S	Belt Conveyor No. 1 – BC1	1981	75 tph/153,300 tpy	FE
005	5S	Belt Conveyor No. 2 – BC2	1981	75 tph/153,300 tpy	FE
006	6S	Crusher No. 1 – CR1	2006	75 tph/153,300 tpy	FE
007	7S	Belt Conveyor No. 3 – BC3	1981	75 tph/153,300 tpy	FE
008	8S	Screen No. 1 – SC1	1981	75 tph/153,300 tpy	FE
009	9S	Screen No. 2 – SC2	1981	75 tph/153,300 tpy	FE
010	10S	Screen No. 3 – SC3	1981	75 tph/153,300 tpy	FE
011	11S	Screen No. 4 – SC4	1981	75 tph/153,300 tpy	FE
012	12S	Belt Conveyor No. 4 – BC4	1981	75 tph/153,300 tpy	FE
013	13S	Belt Conveyor No. 5 – BC5	1981	75 tph/153,300 tpy	FE
014	14S	Belt Conveyor No. 6 – BC6	1981	75 tph/153,300 tpy	FE
015	15S	Belt Conveyor No. 7 – BC7	1981	75 tph/153,300 tpy	FE
016	16S	Belt Conveyor No. 8 – BC8	1981	75 tph/153,300 tpy	FE
017	17S	Belt Conveyor No. 9 – BC9	1981	75 tph/153,300 tpy	FE
018	18S	Covered Stockpile – CS1	1981	1,600 tons	FE
019	19S	Drag Conveyor No. 1 – DC1	1981	75 tph/153,300 tpy	FE
020	20S	Belt Conveyor No. 10 – BC10	1981	75 tph/153,300 tpy	FE
021	21S	Belt Conveyor No. 11 – BC11	1981	75 tph/153,300 tpy	FE
022	22S	Plant Bin - B2	1981	75 tph/153,300 tpy	FE
023	23S	Belt Conveyor No. 12 – BC12	1981	75 tph/153,300 tpy	FE

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
024	24S	Belt Conveyor No. 13 – BC13	1981	75 tph/153,300 tpy	FE
Brick Forming					
025	25S	Pug Mill	1970	75 tph/153,300 tpy	FE (Located inside building)
		Vacuum Extruder	1970	75 tph/153,300 tpy	
		Brick Trimming and Cutting	1970	75 tph/153,300 tpy	
		Brick Setting Machine	1999	75 tph/153,300 tpy	
		Sand Hopper – B3	1970	75 tph/153,300 tpy	
		Sand Hopper – B4	1970	75 tph/153,300 tpy	
		Sand Screw Conveyor - SSC	1970	75 tph/153,300 tpy	
Brick Warming, Drying, and Firing					
NA	NA	Warming Room	1966	NA	NA
026	K1E	Kiln No. 1	1966	8.25 tph fired/72,270 tpy fired	NA
	D11E	Dryer No. 1	1966	NA	NA
	D12E	Dryer No. 2	1966	NA	NA
027	K2E	Kiln No. 2	1971/1983	8.25 tph fired/72,270 tpy fired	NA
	D21E	Dryer No. 3	1971/1983	NA	NA
	D22E	Dryer No. 4	1971/1983	NA	NA
P-Kiln	P-K3E	Periodic Kiln	2010	1 tpd fired/72 tpy fired	NA
RSD	RSD	Rotary Sand Dryer	2013	1.0 tph and 1.0 MMBtu/hr	NA
Coal Handling, Grinding and Firing System					
028	28S	Covered Stockpile No. 2 – CS2	1984	500 tons	PE
029	29S	Coal Bin No. 1 – CB1	1984	30 tons	PE
030	30S	Coal Belt Conveyor No. 1 – CBC1	1984	100 tph/13,140 tpy	PE

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
031	31S	Coal Bin No. 2 – CB2	1984	12 tons	FE
032	32S	Coal Grinder/Pulverizer - CG	1984	1.5 tph/13,140 tpy	BAG
033	33S	Dense Phase Pump System - DPPS	1984	1.5 tph/13,140 tpy	BAG
034	34S	Coal Screw Conveyor No. 1 – CSC1	1984	1.5 tph/13,140 tpy	FE
035	35S	Coal Screw Conveyor No. 2 – CSC2	1984	1.5 tph/13,140 tpy	FE
036	36S	Coal Screw Conveyor No. 3 – CSC3	1984	1.5 tph/13,140 tpy	FE
<b>Finished Brick Area</b>					
NA	SM	Brick Cube Strapping Machine	1991	50 tph/144,540 tpy	NA
NA	WBC1	Waste Belt Conveyor No. 1	1991	50 tph/144,540 tpy	NA
NA	WBC2	Waste Belt Conveyor No. 2	1991	50 tph/144,540 tpy	NA
NA	VAC	Duovac PL52 Portable Vacuum	1991	850 ICFM	NA
<b>Sand Dryer</b>					
037	37S	Sand Dryer	NA	5 MM Btu/hr	N
038	38S	Sand Stockpile – OS2	NA	150 tons	W
039	39S	Covered Sand Stockpile – CS3	NA	200 tons	PE
<b>Vehicle Activity</b>					
041	41S	Vehicle Activity	NA	NA	W
<b>Tanks</b>					
042	42S	Brick Oil Tank – TK1	NA	6,000 gallons	N
043	43S	Fuel Tank – TK2	NA	6,000 gallons	N

## **1.2. Active R13, R14, and R19 Permits**

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

<b>Permit Number</b>	<b>Date of Issuance</b>
R13-0682B	April 4, 2014

## 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.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

### 2.2. Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NSPS</b>	New Source Performance
<b>CBI</b>	Confidential Business Information		Standards
<b>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations		
<b>CO</b>	Carbon Monoxide	<b>pph</b>	Pounds per Hour
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>ppm</b>	Parts per Million
<b>DAQ</b>	Division of Air Quality	<b>PSD</b>	Prevention of Significant Deterioration
<b>DEP</b>	Department of Environmental Protection	<b>psi</b>	Pounds per Square Inch
<b>FOIA</b>	Freedom of Information Act	<b>SIC</b>	Standard Industrial Classification
<b>HAP</b>	Hazardous Air Pollutant		
<b>HON</b>	Hazardous Organic NESHAP	<b>SIP</b>	State Implementation Plan
<b>HP</b>	Horsepower	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>TAP</b>	Toxic Air Pollutant
<b>LDAR</b>	Leak Detection and Repair	<b>TPY</b>	Tons per Year
<b>m</b>	Thousand	<b>TRS</b>	Total Reduced Sulfur
<b>MACT</b>	Maximum Achievable Control Technology	<b>TSP</b>	Total Suspended Particulate
		<b>USEPA</b>	United States Environmental Protection Agency
<b>mm</b>	Million		
<b>mmBtu/hr</b>	Million British Thermal Units per Hour	<b>UTM</b>	Universal Transverse Mercator
<b>mmft<sup>3</sup>/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour	<b>VEE</b>	Visual Emissions Evaluation
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>VOC</b>	Volatile Organic Compounds
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants		
<b>NO<sub>x</sub></b>	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 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 or allow 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, owner, or operator 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). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40 C.F.R. §61.145(b) and 45CSR34]
- 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 any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**[45CSR§7-5.1.]**

- 3.1.10. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

**[45CSR§7-5.2.]**

### **3.2. Monitoring Requirements**

- 3.2.1. Reserved

### **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.
- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
  - 1. The permit or rule evaluated, with the citation number and language.
  - 2. The result of the test for each permit or rule condition.
  - 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) 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.; 45CSR13, Permit No. R13-0682 (Condition 4.3.1)]

- 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. The permittee shall also 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 and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.  
**[45CSR§30-5.1.c.]**

### **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. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, 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 57<sup>th</sup> Street SE  
Charleston, WV 25304

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

**If to the US EPA:**

Associate Director  
Office of Air Enforcement and Compliance  
Assistance (3AP20)  
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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: [R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov). 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.
  - a. 45CSR5—The coal handling operations are regulated by 45CSR7 and therefore are exempt in accordance with 45CSR§§5-2.4.b. & 2.14.
  - b. 45CSR17—The facility is regulated by 45CSR7 and therefore exempt in accordance with 45CSR§7-10.2 and 45CSR§17-6.
  - c. 40 CFR Part 60, Subpart Y—The coal handling facility processes less than 200 tons per day.
  - d. 40 CFR Part 60, Subpart OOO—Excluding existing Crusher No. 1, all the other shale processing equipment known as the grinding building commenced construction prior to August 31, 1983 and have not been reconstructed or modified. Crusher No.1 was replaced with a crusher of equal size in 2006, therefore in accordance with 40 CFR §60.670(d)(1) it is exempt from the provisions of 40 CFR§§60.672, 60.674, and 60.675.
  - e. 40 C.F.R. Part 64—There are no pollutant specific emissions units (PSEU) at this facility that satisfy all of the applicability criteria requirements of 40 CFR §64.2(a), i.e., that: 1) have pre-control device regulated pollutant potential emissions (PTE) equal to or greater than the “major” threshold limits to be

classified as a major source; 2) are subject to an emission limitation or standard and; 3) have a control device to achieve compliance with such emission limitation or standard. Therefore, the facility is not subject to the Compliance Assurance Monitoring (CAM) rule.

#### **4.0 Kilns, Periodic Kiln, and Rotary Sand Dryer [emission point ID(s): K1E, K2E, P-K3E, and RSD]**

##### **4.1. Limitations and Standards**

- 4.1.1. Visible Emissions from each kiln stack shall not exceed twenty (20) percent opacity except as noted in 4.1.2. below.  
[45CSR§7-3.1.]
- 4.1.2. The provisions of 4.1.1. above, shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.  
[45CSR§7-3.2.]
- 4.1.3. The provisions of 45CSR7 shall not be circumvented by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.  
[45CSR§7-4.3.]
- 4.1.4. The increase of the operating process weight rate of any manufacturing process source operation or duplicate source operation by the operation of new, replacement, reactivated and/or altered source operation(s) shall be considered as an expansion and the allowable emission rates from the source operation(s) which resulted in the increase shall be determined as per 45CSR§7-4.4.  
[45CSR§7-4.7.]
- 4.1.5. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.  
[45CSR§7-4.12.]
- 4.1.6. **Potential Hazardous Material Emissions**--Persons responsible for manufacturing process source operations from which hazardous particulate matter material may be emitted such as, but not limited to, lead, arsenic, beryllium and other such materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluations of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Director working in conjunction with other appropriate governmental agencies.  
[45CSR§7-4.13.]
- 4.1.7. Sulfur Dioxide emissions from each Kiln shall not exceed an in-stack concentration of 2000 ppm by volume.  
[45CSR§10-4.1.]
- 4.1.8. Compliance with the allowable sulfur dioxide concentration limitations shall be based on a block three (3) hour averaging time.  
[45CSR§10-4.2.]
- 4.1.9. The facility shall submit a 112(j) application for case-by-case MACT determination for each kiln including the information required in 40 CFR §63.53(a) by June 30, 2015, or as amended by EPA consent order for federal rulemaking. The 112(j) application shall address HAP emissions from each of the kilns. All 112(j) applications must be submitted to both WVDEP-Division of Air Quality, and to the USEPA Region III at

the following address: Chief of Permits and Technical Branch, US EPA Region III, Mail Code 3AP11, 1650 Arch Street, Philadelphia, PA, 19103-2029.

**[45CSR34, 40 CFR §63.52, 45CSR13, Permit No. R13-0682 (Condition 4.1.8.)]**

4.1.10. Emissions from the kilns and rotary sand dryer shall not exceed the following:

	Tunnel Kiln 1 (K1E)		Tunnel Kiln 2 (K2E)		Periodic Kiln (P-K3E)		Rotary Sand Dryer (RSD)	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lbs/hr	tpy
PM	9.5	65.04	9.5	65.04	0.1	0.03	2.01	1.21
PM10	9.5	50.59	9.5	50.59	0.1	0.03	2	1.2
PM2.5	7.18	31.44	7.18	31.44	0.1	0.03	2	1.2
SO2	13.93	61.07	13.93	61.07	1.34	0.02	0.01	0.01
NOx	4.21	18.43	4.21	18.43	0.7	0.01	0.1	0.44
CO	9.9	43.36	9.9	43.36	2.4	0.04	0.09	0.37
VOC	0.2	0.87	0.2	0.87	0.05	0.01	0.01	0.03
Non HF/HCl HAPs	0.07	0.32	0.07	0.32	0.02	0.01	0.02	0.02
HF	18.98	83.11	18.98	83.11	4.6	0.08	n/a	n/a
HCl	1.4	6.14	1.4	6.14	0.34	0.01	n/a	n/a

Compliance with 45CSR13, Permit No. R13-0682 (Condition 4.1.1.) will also show compliance with the particulate matter limits given in 45CSR§§7-4.1. and 4.8.

**[45CSR13, Permit No. R13-0682 (Condition 4.1.1.)]**

4.1.11. Total emissions from the facility shall not exceed the following:

	lb/hr	tpy
PM	61.74	189.88
PM <sub>10</sub>	38.30	130.33
PM <sub>2.5</sub>	21.68	75.18
SO <sub>2</sub>	29.22	122.19
NO <sub>x</sub>	10.37	39.66
CO	22.76	88.98
VOC	0.51	1.91
HF	42.56	166.30
HCl	3.14	12.29
Non HF/HCl HAPs	0.23	0.72

**[45CSR13, Permit No. R13-0682 (Condition 4.1.2.)]**

- 4.1.12. Production from Tunnel Kiln 1 (K1E) shall not exceed 8.25 tons per hour nor 72,270 tons per year.  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.3.)]**
- 4.1.13. Production from Tunnel Kiln 2 (K2E) shall not exceed 8.25 tons per hour nor 72,270 tons per year.  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.4.)]**
- 4.1.14. Production from Periodic Kiln (P-K3E) shall not exceed 2 tons per cycle (72 hours) nor 72 tons per year.  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.5.)]**
- 4.1.15. Sulfur content of the coal used as fuel in the tunnel kilns shall not exceed 1%.  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.6.)]**
- 4.1.16. HF emissions from the Kilns shall not exceed 1,150 micrograms of HF per gram of material fired. Compliance with this condition shall be demonstrated by testing the fluoride concentration of a brick both before and after firing. The concentration after firing shall be subtracted from the concentration before firing. This result shall then be multiplied by  $(18.998 + 1.008)/18.998$  in order to get the equivalent HF emissions. Compliance with this condition shall be determined by averaging all required tests from the previous 12 months (12 month rolling average).  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.7.)]**
- 4.1.17. The permittee shall use only natural gas as a fuel for the Rotary Sand Dryer [RSD].  
**[45CSR13, Permit No. R13-0682 (Condition 4.1.9.)]**
- 4.1.18. Visible emissions from the Rotary Sand Dryer [RSD] shall not exceed ten (10) percent opacity based on a six minute block average.  
**[45CSR §2-3.1; 45CSR13, Permit No. R13-0682 (Condition 4.1.10)]**

## **4.2. Monitoring Requirements**

- 4.2.1. Compliance with the sulfur dioxide limitations shall be determined by not exceeding the maximum sulfur content percentages as listed in Table 2 of the DAQ approved “45CSR10 Monitoring Plan” attached in Appendix A of this permit and through fuel analysis as outlined in the aforementioned monitoring plan.  
**[45CSR§10-8.2.c.]**

## **4.3. Testing Requirements**

- 4.3.1. To demonstrate compliance with the opacity limits, visible emission checks shall be conducted to determine the presence or absence of visible emissions. 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 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each kiln stack for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A as soon as

practicable, but within seventy-two (72) hours of the final visual emission check. A 45CSR7A observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

**[45CSR§7A-2.1., 45CSR§30-5.1.c.] (K1E, K2E, P-K3E)**

- 4.3.2. Tests to determine the compliance of Kiln No.1 (K1E), Kiln No. 2 (K2E), and Periodic Kiln (P-K3E) with the particulate matter (PM) weight emission standards (in lbs/hr) shall be conducted at least once in every five (5) year period. Such tests shall be conducted in accordance with the appropriate method set forth in 45CSR§7A-3. – “Mass Emission Test Procedures” or other equivalent EPA testing method approved by the Secretary and in accordance with section 3.3. of this permit. Unless tests have been completed within one (1) year prior to the issuance date of this permit, initial tests shall be conducted and completed within one hundred eighty (180) days of the effective date of this permit. The results of such tests shall be submitted within sixty (60) days from conducting the stack testing.

**[45CSR§7-8.1., 45CSR§7A-3.1.]**

- 4.3.3. In order to determine compliance with condition 4.1.16 of this permit, the permittee shall perform or have performed appropriate laboratory tests to determine the fluoride content of the bricks both before and after firing at least once for every 12,000 tons of production.

**[45CSR13, Permit No. R13-0682 (Condition 4.2.1)]**

- 4.3.4. In order to determine compliance with condition 4.1.15 of this permit, the permittee shall maintain statements made by fuel suppliers guaranteeing that the sulfur content of the coal is less than or equal to 1%.

**[45CSR13, Permit No. R13-0682 (Condition 4.2.2)]**

- 4.3.5. For the purpose of determining compliance with the opacity limits of 45CSR2, the permittee shall conduct visible emission checks and / or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

- a. The visible emission check shall determine the presence or absence of visible emissions. 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 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.
- b. Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at the rotary sand dryer [RSD] for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.
- c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

**[45CSR§2-3.2; 45CSR13, Permit No. R13-0682 (Condition 4.2.3)] (RSD)**

#### **4.4. Recordkeeping Requirements**

- 4.4.1. Records of all monitoring data required by condition 4.3.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned shall be maintained. The permittee shall also record the general weather conditions (e.g., sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.  
**[45CSR§30-5.1.c.]**
- 4.4.2. A record of all required monitoring data as established in the 45CSR10A monitoring plan shall be maintained on-site. Such records shall be made available to the Director or his duly authorized representative upon request and shall be retained on-site for a minimum of five years.  
**[45CSR§10-8.3.a.]**
- 4.4.3. Records of the operating schedule and the quantity and quality of fuel consumed in each kiln shall be maintained on-site and made available to the Director or his duly authorized representative upon request. Such records may be maintained in electronic form and at a minimum for coal shall include but not limited to an ash, BTU, and sulfur analysis of each shipment.  
**[45CSR§§10-8.3.c. & 8.3.d., 45CSR§30-5.1.c.]**
- 4.4.4. In order to determine compliance with Conditions 4.1.10 through 4.1.14, the Permittee shall monitor and record the production of each of the three kilns on a monthly basis.  
**[45CSR13, Permit No. R13-0682 (Condition 4.3.4.)]**
- 4.4.5. In order to determine compliance with the rotary sand dryer [RSD] emissions in condition 4.1.10, the permittee shall record the amount of sand processed through the rotary sand dryer on a monthly basis.  
**[45CSR13, Permit No. R13-0682 (Condition 4.3.5.)]**
- 4.4.6. In order to determine compliance with the fuel type limitation in condition 4.1.17, the permittee shall maintain records of the fuel usage for the RSD. At a minimum, the records shall indicate the type of fuel used.  
**[45CSR13, Permit No. R13-0682 (Condition 4.3.6.)]**
- 4.4.7. The permittee shall maintain records of all monitoring data required by condition 4.3.5 documenting the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.  
**[45CSR13, Permit No. R13-0682 (Condition 4.3.7.)]**

#### **4.5. Reporting Requirements**

- 4.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A, must be reported in writing to the Director of the Division of Air Quality as soon as practicable but within ten (10) calendar days of the occurrence. The report shall include at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.  
**[45CSR§30-5.1.c.]**
- 4.5.2. A periodic exception report shall be submitted to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.  
**[45CSR§10-8.3.b.]**
- 4.5.3. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A (Method 22) or Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.  
**[45CSR13, Permit No. R13-0682 (Condition 4.4.1.)]**

#### **4.6. Compliance Plan**

- 4.6.1. The facility is major for HAPs. The facility will potentially be subject to the NESHAP for Brick and Structural Products Manufacturing, "Brick MACT" (40 CFR Part 63 Subpart JJJJ). The previous version has been vacated, and the final rule from the EPA is due by June 30, 2015. Additionally, USEPA Region III has determined that 112(j) applies to facilities for which a federal standard has been vacated. This compliance plan to restrict the maximum annual emissions of HF on Tunnel Kilns Nos. 1 and 2 via limits on maximum annual brick production concludes upon compliance with an EPA National Emission Standard for Hazardous Air Pollutants for this source category, or upon compliance with a 112(j) standard in an approved Title V permit. The following permit conditions shall apply until conclusion of this compliance plan:
- 4.6.1.1. The kilns (K1E and K2E) shall have a maximum throughput of 8.25 tph fired/56,873 tpy fired for each kiln. This limit shall be followed instead of the limits in conditions 4.1.12 and 4.1.13.
- 4.6.1.2. Maximum annual HF emissions from the kilns (K1E and K2E) shall be no more than 65.40 tpy for each kiln. This limit shall be followed instead of the HF limits for each kiln in condition 4.1.10.
- 4.6.1.3. Maximum annual HF emissions from the periodic kiln (P-K3E) shall be no more than 0.07 tpy. This limit shall be followed instead of the HF limits for the periodic kiln in condition 4.1.10.
- 4.6.1.4. Maximum annual HF emissions from the facility shall be no more than 130.87 tpy. This limit shall be followed instead of the HF limit in condition 4.1.11.

- 4.6.1.5. During the September 2014 performance testing required by 4.3.2., testing of HF emissions to atmosphere correlated with the fluoride content of the bricks both before and after firing (using the procedures of 4.3.3.) shall be performed. In addition to HF, the permittee shall also test for HCl and Cl<sub>2</sub>. Audit samples will be collected and analyzed as part of the EPA Method 26A testing.

## **APPENDIX A**

45CSR10 Monitoring Plan

# Continental Brick Company

154 Charles Town Road  
Martinsburg, West Virginia 25405

Phone: 304-263-6974  
Fax: 304-267-0793

July 9, 2014

Director  
Division of Air Quality  
West Virginia Department of Environmental Protection  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

RE: Continental Brick Company  
45CSR10 Monitoring Plan for Manufacturing Processes  
Plant ID No.: 003-00002

Dear Sir:

Continental Brick Company (Continental) is submitting this revised monitoring plan, in accordance with 45CSR10, for Continental's two (2) tunnel kilns located at the Martinsburg, West Virginia plant. This plan is being submitted to the West Virginia Department of Environmental Protection (WVDEP), Division of Air Quality (DAQ), to address the natural gas and coal-fired tunnel kilns used to cure and fire face brick.

## ***Regulation 10 Testing Requirements***

Continental hereby petitions the Director for an alternative to stack testing and requests that fuel analysis for sulfur and the corresponding calculations of in-stack sulfur dioxide concentrations be used as a substitute in demonstrating compliance with the 2,000 ppm standard from 45CSR10, Section 4. The attached calculations, based on existing permit limits, demonstrate that each affected unit operated by Continental has maintained, and will continue to maintain, compliance with the in-stack sulfur dioxide concentration. The results of the in-stack concentration calculations are shown in Table 1.

**Table 1 – In-Stack SO<sub>2</sub> Concentration Calculation Results**

Unit	Result (ppm)
Tunnel Kiln No. 1	69
Tunnel Kiln No. 2	69

By maintaining compliance with existing permit conditions and limitations, it can be reasonably expected that the in-stack sulfur dioxide concentration will be well below the 2,000 ppm standard. Continental requests that the Director accept these results as they are a reliable indication of Continental's ability to meet the standard.

***Regulation 10 Monitoring Requirements***

Continental proposes to monitor the sulfur content percentage of permitted fuels in the affected units by obtaining sulfur content statements from the fuel supplier. Operating these permitted units as they were intended, while utilizing fuels with sulfur contents at or below existing permitted levels, will assure that Continental continues to maintain compliance with the 2,000 ppm standard from 45CSR10, Section 4. Maximum sulfur content percentages for each affected unit for the permitted fuels are shown in Table 2.

**Table 2 – Maximum Sulfur Content Percentages**

Unit	Fuel Type	Maximum Sulfur Content (%)
Tunnel Kiln No. 1	Natural Gas	Trace S (pipeline quality)
	Coal	1.0
Tunnel Kiln No. 2	Natural Gas	Trace S (pipeline quality)
	Coal	1.0

By utilizing fuels that do not exceed the maximum sulfur content listed in Table 2, which maintains compliance with existing permit conditions and limitations, it can be reasonably expected that the in-stack sulfur dioxide concentration will be well below the 2,000 ppm standard as indicated in Table 1. Continental requests that the Director accept fuel sulfur content as the trackable basis of a Regulation 10 monitoring plan for the affected units.

***Regulation 10 Recordkeeping and Reporting Requirements***

Continental will maintain sulfur content statements from the fuel suppliers on site at the affected facility for a period of at least five (5) years in accordance with 45CSR10A, Section 7. Upon approval of this monitoring plan by the Director, Continental will submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report". In accordance with 45CSR10A, Section 7.2 b., Continental will submit these reports on a quarterly basis to the Director by the 30<sup>th</sup> day of the month following the calendar quarter. The purpose of these reports is to provide the Director with sulfur content statements for the fuels utilized during the quarter and to report any excursions in accordance with 45CSR10A, Section 7.2.b.3.

If you have any questions, or require additional information, please contact me at (304) 263-6974.

Sincerely,

CONTINENTAL BRICK COMPANY



Donald B. Sult  
Vice President

Director, Division of Air Quality  
Reg. 10 Monitoring Plan

Attachment

c: Patrick Ward, Potesta & Associates, Inc.

Continental Brick Company  
Martinsburg Plant (Plant ID No.: 003-00002)

POTESTA & ASSOCIATES, INC.  
Project No: 0101-13-0410-001

By: ADM  
Date: July 2, 2014

Checked By: PEW  
Date: July 7, 2014

Unit Name: Tunnel Kiln No. 1 and No. 2  
Unit ID No.: TK-1 and -2  
Emission ID No.: E-TK -1 and -2  
Max. Heat Input: 30 MMBtu/hour  
SO<sub>2</sub> Limit: 13.93 lbs/hour (from permit application associated with R.13-682A)  
Fuel Source(s): coal and natural gas  
Max. S Content: 1% coal, negligible natural gas  
Max. Stack Temp: 340 F  
Max. Stack Flow: 30,699 ACFM Based on Blue Mountain Environmental Corporation Stack Test (September 23, 2009)

SO<sub>2</sub> in-stack concentration based on the existing hourly SO<sub>2</sub> mass limitation:

Hourly SO<sub>2</sub> Mass Limit = 13.93 lbs/hour

1. Converting hourly SO<sub>2</sub> mass limit to gram moles of SO<sub>2</sub> using MW of sulfur dioxide = 64 grams/mole:

$n_{SO_2} = 98.73$  moles SO<sub>2</sub> /hour

2. Using the ideal gas law to calculate the number of moles of stack gas per hour:

$n = P V / R T$        $n$  = number of moles of stack gas per hour  
P = stack pressure (atm)  
V = stack volumetric flow rate (L/hr)  
R = ideal gas constant (0.08206 L atm / mole K)  
T = stack gas temperature (K)

Input Plant Parameters:

Stack pressure = 14.7 lbs/in<sup>2</sup>  
Stack temperature = 340 F  
Stack flow rate = 30,699 ft<sup>3</sup>/minute

Converting to required units for the ideal gas law equation:

Stack pressure = 1.00 atmosphere (1 atmosphere = 14.7 lbs/in<sup>2</sup>)  
Stack temperature = 444.26 K [ $K = ((F-32)/1.8) + 273.15$ ]  
Stack flow rate = 52,163,741 L/hr (L/hr = ft<sup>3</sup>/minute x 28.32 L/ft<sup>3</sup> x 60 minute/hr)

$n_{stack} = 1,430,869$  moles/hour

3. Calculating the SO<sub>2</sub> in-stack concentration in parts per million (ppm):

SO<sub>2</sub> concentration = 69 ppm