

APPENDIX B
WEST VIRGINIA
NO_x SIP CALL NON-EGU BUDGET DEMONSTRATION

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WV NOX SIP CALL NON-EGU BUDGET DEMONSTRATION

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West Virginia NO_x SIP Call Non-EGU Budget Demonstration, a Non-Regulatory Component of the WV 45CSR40 SIP Revision

45CSR40 “Control of Ozone Season Nitrogen Oxides Emissions” establishes an ozone season budget for oxides of nitrogen (NO_x). The ozone season NO_x budget is 2,184 tons for units that have a maximum design heat input greater than 250 MMBtu/hr, except for any unit subject to a seasonal NO_x trading program established under 40 CFR part 97 in accordance with a federal implementation plan set forth in 40 CFR § 52.38(b) or subject to a seasonal NO_x trading program established under a SIP revision approved by the U.S. EPA as meeting the requirements of 40 CFR § 52.38(b). The rule also requires West Virginia to demonstrate to the U.S. Environmental Protection Agency (USEPA) how the budget will be met.

Background

In October 1998, the USEPA finalized a “Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone” - commonly referred to as the NO_x SIP Call. It required twenty-two (22) states and the District of Columbia to submit State Implementation Plans to address the regional transport of ground-level ozone. West Virginia is subject to the NO_x SIP Call.

West Virginia was subject to the subsequent NO_x Budget Trading Program (NBP) which began in 2003. The NBP was designed to mitigate the transport of ozone in response to the NO_x SIP Call, and required the reduction of NO_x, one of the precursors of ozone, during the warm summer months, referred to as the ozone season. The Clean Air Interstate Rule (CAIR) was finalized by the EPA in 2005 and although it did not technically replace the NBP, electric generating units (EGUs) that met the requirements of CAIR also met the NO_x SIP Call requirements. In July of 2011, the EPA finalized the Cross-State Air Pollution Rule (CSAPR) to replace CAIR; however, CSAPR did not apply to the non-EGU large boilers and combustion turbines that were included in West Virginia’s original NO_x SIP Call compliance strategy.

In response to CAIR, the DEP promulgated 45CSR40 “Control of Ozone Season Nitrogen Oxides Emissions”, which included the provisions of the CAIR program for EGUs and the NBP provisions for non-EGUs. The DEP then repealed 45CSR1 “NO_x Budget Trading Program as a Means of Control and Reduction of Nitrogen Oxides from Non-Electric Generating Units” and 45CSR26 “NO_x Budget Trading Program as a Means of Control and Reduction of Nitrogen Oxides from Electric Generating Units”. In 2016, when CSAPR replaced CAIR, 45CSR40 was revised to remove the CAIR provisions, retaining the NO_x SIP Call requirements for non-EGUs which were beyond the scope of CSAPR. 45CSR40 requires West Virginia to show continuing compliance with the NO_x SIP Call through a demonstration to the EPA that the ozone season NO_x budget of 2,184 tons for non-EGUs will be achieved [65FR2767, January 18, 2000].

In March 2019, the EPA published *Emissions Monitoring Provisions in State Implementation Plans Required Under the NO_x SIP Call* [84 Fed. Reg. 8422, March 8, 2019] which allowed states to establish alternative monitoring and reporting requirements for sources that are not otherwise required to perform monitoring, recordkeeping, and reporting requirements in accordance with 40 CFR part 75. West Virginia revised 40CFR40, effective June 1, 2020, to establish alternative monitoring, recordkeeping,

and reporting requirements for sources that are not otherwise required to follow the provisions of 40 CFR part 75. The West Virginia DEP further revised 45CSR40, effective April 1, 2023 to update the characterization of units not subject to the rule because they are subject to a federal NO_x ozone season trading program.

Methodology

The tables below identify the facilities and units with a maximum design heat input greater than 250 MMBtu/hr which were included in the NBP and are not subject to a seasonal NO_x trading program established under 40 CFR part 97 in accordance with a federal implementation plan set forth in 40 CFR § 52.38(b) or subject to a seasonal NO_x trading program established under a SIP revision approved by the U.S. EPA as meeting the requirements of 40 CFR § 52.38(b). Table 1 identifies units that were included in the NBP that have been permanently shut down. Table 2 identifies the subject units that are currently operational or are currently permitted. The “Ozone Season NO_x Emissions” are the maximum potential NO_x emissions calculated by assuming each unit operates at its maximum design heat input for the entire ozone season (3,672 hours), or for its maximum annual NO_x emissions, or for its maximum permitted annual operating hours (if less than 3,672 hours).

This demonstration is based on the maximum potential NO_x emissions during the ozone season, starting with the 2017 ozone season. If a new unit meeting the applicability requirements of 45CSR40 is permitted, the DEP will update the ozone season NO_x budget demonstration to include the new unit and verify that the ozone season NO_x budget will not be exceeded.

Demonstration

The owner or operator of a unit with a maximum design heat input greater than 250 mmBtu/hr, except for any unit subject to a seasonal NO_x trading program established under 40 CFR part 97 in accordance with a federal implementation plan set forth in 40 CFR § 52.38(b) or subject to a seasonal NO_x trading program established under a SIP revision approved by the U.S. EPA as meeting the requirements of 40 CFR § 52.38(b), is subject to 45CSR40 “Control of Ozone Season Nitrogen Oxides Emissions”. This rule requires the owners or operators of affected units to limit ozone season NO_x emissions pursuant to a permit issued under 45CSR13, 45CSR14, 45CSR19, or via consent order. The owner or operator of an affected unit must comply with the provisions of 40 CFR part 75, subpart H (including use of any of the emissions monitoring methodologies which the unit qualifies to use under 40 CFR part 75) or install and operate a certified continuous emission monitoring system (CEMS) or a certified predictive emission monitoring system (PEMS) as necessary to attribute ozone season mass emissions of NO_x to each unit in accordance with §§ 45-40-6.2, -6.3, -6.4 or -6.5. Nitrogen oxides mass emissions measurements recorded and reported in accordance with §§ 45-40-6.2, -6.3, -6.4 or -6.5 must be used to determine a unit’s compliance with the ozone season NO_x emission limitation. Conditions concerning alternative monitoring scenarios are established in §§ 45-40-6.6, -6.7, -6.8, and -6.9.

In Table 2, West Virginia clearly demonstrates that the ozone season NO_x budget of 2,184 tons for affected units cannot be exceeded, considering the legally enforceable NO_x emission limits of the units currently operational or permitted. The legally enforceable maximum potential ozone season NO_x emissions total of 1,202 tons, is approximately 55% of the total budget and leaves 982 tons in the budget available for new units.

Table 1: West Virginia Ozone Season NO_x Budget Demonstration Large Non-EGU Boilers - Permanently Shut Down

Facility Name	WV Facility ID#	ORISPL Facility ID#	CAMD Unit ID#	Boiler #	Date Permanently Shut Down
ArcelorMittal Weirton, Inc. ¹	029-00001	54344	89	3	2015
			90	4	2015
			91	5	2015
Eagle Natrium LLC, Natrium ²	051-00002	50491	2	3	July, 2016
Union Carbide Corporation, Institute ³	039-00007	88053	70	10	January, 2017
			80	11	January, 2017
			90	12	January, 2017
Union Carbide Corporation, South Charleston	039-00003	50151	B25	25	2012
WV Manufacturing LLC, Alloy ⁴	019-00001	50012	BLR4	4	2008

¹ ArcelorMittal Weirton, Inc. was previously Weirton Steel Corporation.

² Eagle Natrium, LLC Natrium Plant was PPG Industries in 2003.

³ Union Carbide Corporation, Institute was Aventis CropScience in 2003.

⁴ WV Manufacturing LLC, Alloy was Elkem Metals Company, Alloy in 2003.

Table 2: West Virginia Ozone Season NO_x Budget Demonstration for Current Large Non-EGU Boilers

Facility Name	WV Facility ID#	ORISPL Facility ID#	CAMD Unit ID#	Boiler #	Enforceable Mechanism	Specific condition(s) incorporated by reference (IBR)	Max Design Heat Input (mmBtu/hr)	Ozone Season Operating Time (hrs)	NO _x Limit (lb/mmBtu) or (lb/hr) or tpy	Ozone Season NO _x Emissions (tons)
Altivia Services, LLC, Institute ¹	039-00692	880053	BO16	16	R13-3111E	4.1.1	350	3,672	0.036 lb/mmBtu	23
			BO17	17	R13-3111E	4.1.1	350	3,672	0.036 lb/mmBtu	23
			B018	18	R13-3111E	4.1.1	350	3,672	0.036 lb/mmBtu	23
Appalachian Power Company, John E Amos	079-00006	3935	AUX1	AUX1	R13-2663E	4.1.17	642	876	0.20 lb/mmBtu	56
			AUX3	AUX3	R13-2663E	4.1.18	600	876	0.20 lb/mmBtu	53
Appalachian Power Company, Mountaineer (1301)	053-00009	6264	AUX1	AUX1	R13-0075J	4.1.3	600	876	99.67 lb/hr	44
			AUX2	AUX2	R13-0075J	4.1.4	600	876	99.67 lb/hr	44
Blue Racer Midstream, LLC, Natrium Power Plant ²	051-00142	n/a ³	n/a	CT1	R13-3493	4.1.2.e	496.2	3,672	20.35 tpy	20
			n/a	CT2	R13-3493	4.1.2.e	496.2	3,672	20.35 tpy	20
			n/a	CT3	R13-3493	4.1.2.e	496.2	3,672	20.35 tpy	20
			n/a	CT4	R13-3493	4.1.2.e	496.2	3,672	20.35 tpy	20
Chemours Company, Belle ⁴	039-00001	10788	612	10	CO-R40-C-2016-30	1	275	3,672	0.20 lb/mmBtu	101
Kentucky Power Company, Mitchell (WV) ⁵	051-00005	3948	AUX1	AUX1	R13-2608E	5.1.1	663	876	99.45 lb/hr	44
Union Carbide Corporation, South Charleston	039-00003	50151	B26	26	R13-2033D	4.1.1	352	3,672	70.4 lb/hr	129
			B27	27	R13-2141C	A.6	353	3,672	70.6 lb/hr	130
Westlake Natrium LLC, Natrium ^{6, 7, 8}	051-00002	50491	1	4	R14-0027F	4.1.1	540	3,672	0.16 lb/mmBtu	159
			3	5	R14-0027F	4.1.2	999	3,672	0.16 lb/mmBtu	293
Total Ozone Season NO _x (tons)										1,202
WV Non-EGU Ozone Season NO _x Budget										2,184
Reserve										982

¹ Altivia Services, LLC, Institute was Aventis CropScience in 2003.

² Blue Racer emissions are the most conservative "Scenario B" based on the Siemens SGT-800 units. The hourly NO_x rate in the table is the steady-state operations rate.

³ Blue Racer CTs have not yet been installed and they do not have an ORISPL facility ID number at this time.

⁴ The Chemours Company was DuPont in 2003.

⁵ Kentucky Power Company, Mitchell (WV) was Ohio Power Company, Mitchell in 2003.

⁶ Westlake Natrium LLC, Natrium Plant was PPG Industries in 2003.

⁷ The NO_x limits for the Natrium plant is after the conversion to natural gas from coal.

⁸ Westlake Natrium LLC name changed from Eagle Natrium LLC in April 2022.

WEST VIRGINIA PERMITS AND COMPLIANCE ORDERS

LEGALLY ENFORCEABLE MECHANISMS

Altivia Services, Institute Plant - Permit R13-3111e

Appalachian Power Company, John E. Amos Plant – Permit R13-2663E

Appalachian Power Company, Mountaineer Plant – Permit R13-0075J

Blue Racer Midstream, Natrium Power Plant – Permit R13-3493

The Chemours Company, Belle Plant – Compliance Order CO-R40-C-2016-30

Eagle Natrium LLC, Natrium Plant – Permit R14-0027F

Kentucky Power Company, Mitchell Plant – Permit R13-2608E

Union Carbide Corporation, South Charleston Plant – Permit R13-2033D

Union Carbide Corporation, South Charleston Plant – Permit R13-2141C

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

*Austin Caperton
Cabinet Secretary*

Class I Administrative Update



R13-3111E

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Union Carbide Corporation
Institute Site
039-00005**

A handwritten signature in blue ink, appearing to read "William F. Durham", is written over a horizontal line.

**William F. Durham
Director**

Issued: July 13, 2018

This permit will supersede and replace Permit R13-3111D.

Facility Location: On State Route 25
Institute, Kanawha County, West Virginia
Mailing Address: P.O. Box 8361
South Charleston, WV 25303
Facility Description: Chemical Manufacturing Complex
NAICS Codes: 325199
UTM Coordinates: 432.19 km Easting • 4,248.75 km Northing • Zone 17
Permit Type: Class I Administrative Update
Description of Change: Class I Administrative Update to remove Boilers 19 and 20.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity (MMBtu/hr)	Control Device
B016	E016	Boiler 16 ¹ ; Industrial Boiler Natural Gas Fired Boiler with low-NO _x Burner	2017	350 MMBtu/hr	None
B017	E017	Boiler 17 ¹ ; Industrial Boiler Natural Gas Fired Boiler with low-NO _x Burner	2017	350 MMBtu/hr	None
B018	E018	Boiler 18 ¹ ; Industrial Boiler Natural Gas Fired Boiler with low-NO _x Burner	Future	350 MMBtu/hr	None

1- Boiler Nos. 16, 17, and 18 are new affected units under Subpart Db to Part 60 and Subpart DDDDD to Part 63.

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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppm_v	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.3.2. 45CSR14 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration;*

2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-3111D. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3111B and R13-3111E and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 10.3.]

2.5.2. 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;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

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; and
- 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.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.
- 2.12.2. 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 Section 2.12.3 are met.

2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
[45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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.]

3.2. Monitoring Requirements

[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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for

continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **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§4. *State Enforceable Only.*]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class 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
Charleston, WV 25304-2345

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. Operating Fee

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based

upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to Boilers 16, 17, and 18:

- a. CO emissions emitted to the atmosphere from each boiler shall not exceed 12.0 pounds per hour on a 3-hour average with an annual rate not to exceed 52.4 tpy. Initial compliance with this limit shall be satisfied through testing as required in Condition 4.3.1. After the initial compliance demonstration, verifying compliance with this hourly limit shall be satisfied by optimization of the CO concentration from the unit during the tune-up as required in Condition 4.1.2. and verifying compliance with the annual limit shall be determined by satisfying the fuel usage limit of Condition 4.1.1.e.
- b. NO_x emissions emitted to the atmosphere from each boiler shall not exceed 0.036 pounds per MMBtu. Compliance with this limit shall be determined on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days. This limit applies at all times including periods of startup, shutdown, or malfunction.
[40 CFR §60.44b(a), (h), and (i); 40 CFR §60.46b(e)(3)]
- c. Each boiler shall only be fired with pipeline quality natural gas. This condition satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b. and 45CSR§10-3.1.e.
- d. Each boiler shall be equipped, maintained, operated with a continuous oxygen trim system that maintains an optimum air to fuel ratio for each unit. Such system shall be installed upon initial start-up of the unit.
[40 CFR §63.7575]
- e. Each boiler shall be designed or constructed with a maximum design heat input of no greater than 350 MMBtu/hr. Compliance with this limit for each boiler shall be satisfied by limiting the annual consumption of natural gas to 2,942.4 MM cubic feet, measured as a 12 month rolling total.

4.1.2. The permittee shall conduct the initial tune-up and subsequent tune-ups for the boilers in accordance with the following timing and tune-up requirements:

- a. The initial tune up for Boiler Nos. 16, 17 and 18, shall be completed no later than 61 months after initial start-up of each affected unit respectively.
[40 CFR §63.7510(g) & §63.7490(b)]
- b. Subsequent tune-ups for Boilers Nos. 16, 17 and 18 shall be completed no later than 61 months after the previous tune-up.
[40 CFR §63.7515(d) § 63.7540(a)(12)]
- c. Each tune-up shall consist of the following:
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

- ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, which includes the manufacturer's NO_x concentration specification of 30 ppm;
- v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[40 CFR §63.7500(a)(1), §63.7505(a), §§63.7510(g), §63.7515(d), §63.7540(a)(12), and Table 3 to Subpart DDDDD of Part 63—Work Practice Standards]

- 4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2.1. The permittee shall record and maintain records of the amount of natural gas consumed by Boiler Nos. 16, 17 and 18 during each day and calculate the annual capacity factor for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity calculated at the end of each calendar month. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

[40 CFR §60.49b(d)(1)]

- 4.2.2. For Boiler Nos. 16, 17 and 18, the permittee shall install, operate, certify, and maintain a continuous emission monitoring system (CEMS) for measuring NO_x and diluent gas (CO₂ or O₂) from the exhaust of each boiler in accordance with the applicable Performance Specifications under Appendix B to Part 60 of Chapter 40 or a NO_x CEMS that meets the requirements of Part 75 of Chapter 40 of the Code of Federal Regulations. A NO_x CEMS installed, operated, maintained and continuing to meet the ongoing requirements of Part 75 of the Chapter 40, may be used for the purpose of demonstrating compliance with the NO_x in Condition 4.1.1.b., except that the permittee shall also meet the requirements of §60.49b. Such monitor system shall include an automated data acquisition and handling system (DAHS). All required certification tests of the monitoring system for Boiler Nos. 16, 17, and 18 must be completed no later than 90 unit operating days or 180 calendar days (whichever is sooner) after initial start-up of each boiler. All required certification tests of the monitoring system for Boiler Nos. 19 and 20 must be completed 180 calendar days after initial start-up.

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for NO_x shall be 500 ppm or the value determined according to Section 2.1.2. in Appendix A to Part 75 of Chapter 40.

The CEMS required under this condition shall be operated and data recorded during all periods of operation of the respected boiler except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by this condition and required under 40 CFR §60.13(h) shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under item b of Condition 4.1.1. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(h)(2).

When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of Appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

CEMS unit conforming to the specifications of 40 CFR Part 75 shall use unbiased, un-substituted data to demonstrate compliance with the limits as specified in this permit.

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.1.b. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration

checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS shall be maintained in accordance with Condition 3.4.1. of this permit.

[40 CFR §§60.48b(b) though (f), 45 CSR §40-71. and 40 CFR §75.20.]

4.3. Testing Requirements

4.3.1. The purpose of this requirement is for the permittee to demonstrating initial compliance with the CO emission limit in Condition 4.1.1.a. Within 180 days after start-up and a satisfactory performance evaluation of the NO_x CEMs, the permittee shall conduct initial performance testing for Boiler Nos. 16, 17, and 18 to demonstrate initial compliance with the hourly CO rate in Condition 4.1.1.a. for each unit. The permittee shall conduct such testing at 90 percent or greater of each unit's maximum design heat input, in accordance with Test Method 10B from Appendix A to 40 CFR Part 60, and Condition 3.3.1. In the test report, the permittee shall include the NO_x measurement from the NO_x CEM for each test run of each test. Records of this testing shall be maintained in accordance with Condition 3.4.1.

4.3.2. To determine initial compliance with the emission limits for NO_x required under 40 CFR §60.44b and Conditions 4.1.1.b., the permittee shall conduct the performance test for Boiler Nos. 16, 17, 18, 19, and 20 as required under 40 CFR §60.8 using the continuous system for monitoring NO_x (NO_x CEMS) under Condition 4.2.2. Such testing shall be conducted within 60 days after achieving the maximum production rate at which the affected unit will be operated, but not later than 180 days after initial startup of the boiler.

NO_x emissions from the steam generating unit are to be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_x emission standards under Condition 4.1.1.b. and 40 CFR §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. Such testing shall be conducted in accordance with Condition 3.3.1. and 40 CFR §60.46b. Records of this testing shall be maintained in accordance with Condition 3.4.1.

[40 CFR §60.8, §60.46b(c) & (e)(1)]

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** 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.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. The permittee shall keep the following records in accordance with 40CFR§63.7555. This includes but is not limited to the following information during the tune-up as required in Condition 4.1.2. and 40 CFR §63.7540:

- a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. During the tune-up, concentrations of NO_x from the CEMS of the unit shall be included; and
- b. A description of any corrective actions taken as a part of the tune-up.
[40 CFR §§63.7540 (a)(12), and 63.7555]

4.4.5. The permittee shall maintain records of the following information for each steam generating unit operating day of Boiler Nos. 16, 17, and 18:

- a. Calendar date;
- b. The average hourly NO_x emission rates (expressed as NO₂) (lb/MMBtu heat input) measured or predicted;
- c. The 30-day average NO_x emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
- d. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
- e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

- f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- g. Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;
- h. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
- j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of Part 60.

Such records shall be maintained in accordance with Condition 3.4.1. of this permit.
[40 CFR §60.49b(g)]

4.5. Reporting Requirements

- 4.5.1. The permittee shall submit a “Notification of Compliance Status” for boiler Nos. 16, 17 and 18 to the Director before the close of business on the sixtieth (60th) day after completion of the initial compliance demonstration as required in Condition 4.1.2. Such “Notification of Compliance Status” shall be in accordance with 40 CFR §63.9(h)(2)(ii) and contain the information specified in 40 CFR §§63.7545(e)(1), and (8), which includes a statement the initial tune-up for each boiler was completed.
[40CFR§63.7545(e)]
- 4.5.2. The permittee shall submit an “Initial Notification” to the Director of the initial start-up of Boiler Nos. 16, 17 and 18 within 15 days after the actual date of start-up. This Initial Notification supersedes the notification requirements of Condition 2.18.
[40CFR§§63.7545(c) & 40 CFR §60.49b(a), §60.7]
- 4.5.3. The permittee shall submit “5-year Compliance Reports” for the Boiler Nos. 16, 17 and 18 electronically using CEDRI that is accessed through the EPA’s Center Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form for this report is not available in CEDRI at the time the report is due, the permittee shall submit the report to the Administrator and Director using the addresses listed in Condition 3.5.3. The first compliance report shall be submitted no later than five years after the initial start-up of the unit and the first date ending on January 31. Subsequent reports shall be submitted once every five years afterwards. Such reports shall contain the information specified in 40 CFR §63.7550(c)(1) which are:
 - a. Permittee and facility name, and address;
 - b. Process unit information, emission limitations, and operating limitations;
 - c. Date of report and beginning and ending dates of the reporting period;
 - d. Include the date of the most recent tune-up for each boiler; and
 - e. Include the date of the most recent burner inspection if it was not done on a five-year frequency and was delayed until the next scheduled or unscheduled unit shutdown.

The permittee shall maintain records of such reports in accordance with Condition 3.4.1.
[40CFR §§63.7550(b), (b)(1), (c)(1), & (c)(5)(i) though (iv) and (xiv), and (h)(3)]

- 4.5.4. The permittee shall submit to the Director within 60 days of completion of NO_x CEMS performance evaluation for Boiler Nos. 16, 17 and 18 two copies of the performance evaluation report for each unit. A copy of the NO_x CMS Certification Application required by 45 CSR §40-74.3 and 40 CFR §75.63(a)(1) provisions shall be submitted in the Administrator and Director within 45 days of completion of all CEM certification tests, which shall include the information as prescribed in 40 CFR §75.63(b).
[45 CSR §40-73.1., 45 CSR §40-74.3, 40 CFR §60.13(c)(2), 40 CFR §60.49b(b), and 40 CFR §75.63.(a)(1)]
- 4.5.5. The permittee shall submit semiannual and annual reports to the Director for Boiler Nos. 16, 17 and 18. The reporting period for these reports shall be January 1st through June 30th and July 1st through December 31st. Such reports shall be submitted with the facility's Title V Compliance Report. These reports shall contain the recorded information as required in Condition 4.4.5.
[40 CFR §60.49b(g), (i), & (w)]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name & Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

Permit to Modify



R13-2663E

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:
Appalachian Power Company
John E. Amos Plant
079-00006



William F. Durham
Director

Issued: September 1, 2015

This permit will supercede and replace Permit R13-2663D.

Facility Location: Saint Albans, Putnam County, West Virginia
Mailing Address: P.O. Box 4000
State Route 817
Saint Albans, WV 25177
Facility Description: Electrical Power Generator
SIC Codes: 4911
UTM Coordinates: 428.2 km Easting • 4,258.4 km Northing • Zone 17
Permit Type: Modification
Description of Change: Voluntary heat input capacity limit on the two auxiliary boiler in order to meet the definition of "Limited Use" boiler per 40 CFR 63 Subpart DDDDD

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0 Emission Units

Emission Point ID	Emission Unit ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
4E	1S	Limestone Material Handling	2006/2007	1500 TPH	None
5E	2S	Limestone Mineral Processing	2006/2007	500 TPH	None
6E	2S	Limestone Mineral Processing	2006/2007	500 TPH	Fabric Filter
7E	2S	Limestone Mineral Processing	2006/2007	500 TPH	Fabric Filter
8E	2S	Limestone Mineral Processing	2006/2007	500 TPH	Fabric Filter
9E	3S	Gypsum Material Handling	2006/2007	300 TPH	None
10E	4S	Dry Sorbent Material Handling	2006/2007	50 TPH	None
11E	4S	Dry Sorbent Material Handling	2006/2007	50TPH	Fabric Filter
12E	4S	Dry Sorbent Material Handling	2006/2007	50 TPH	Fabric Filter
13E	5S	MgOH Material Handling	2006/2007	8000 gal/hr	None
14E	6S	Wastewater Treatment Handling	2006/2007	80 TPH	None
15E	6S	Wastewater Treatment Handling	2006/2007	50 TPH	Fabric Filter
3E	ME-1	Mechanical Extractor 1	2009	NA	Filter Separator
3E	ME-2	Mechanical Extractor 2	2009	NA	Filter Separator
3E	ME-3	Mechanical Extractor 3	2009	NA	Filter Separator
3E	ME-4	Mechanical Extractor 4	2009	NA	Filter Separator
3E	ME-5	Mechanical Extractor 5	2009	NA	Filter Separator
EP-1	FAS-5	Unit 3 Fly Ash Silo A	2009	1600 tons	Bin Vent Filter
EP-2	FAS-6	Unit 3 Fly Ash Silo B	2009	1600 tons	Bin Vent Filter
EP-5	FC-A31	Fluidized Conveyor A31 TP	2009	360 tph	Vent Filter
EP-10	FC-A32	Fluidized Conveyor A32 TP	2009	360 tph	Vent Filter
EP-8	FC-B31	Fluidized Conveyor B31 TP	2009	360 tph	Vent Filter
EP-11	FC-B32	Fluidized Conveyor B32 TP	2009	360 tph	Vent Filter
F-1	WFA-3A1	Pin/Paddle Mixer A31 TP	2009	450 tph	N
F-2	WFA-3A2	Pin/Paddle Mixer A32 TP	2009	450 tph	N
F-3	WFA-3B1	Pin/Paddle Mixer B31 TP	2009	450 tph	N
F-4	WFA-3B2	Pin/Paddle Mixer B32 TP	2009	450 tph	N
Aux AM1	Aux 1	Auxiliary Boiler	1971	642 mmbtu/hr	N
Aux AM3	Aux 3	Auxiliary Boiler	1971	600 mmbtu/hr	N

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 (45 CSR § 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 Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM_{2.5}	Particulate Matter less than 2.5µm in diameter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations	Ppb	Pounds per Batch
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	Ppmv or ppmv	Parts per million by volume
DEP	Department of Environmental Protection	PSD	Prevention of Significant Deterioration
dscm	Dry Standard Cubic Meter	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant	SIP	State Implementation Plan
HON	Hazardous Organic NESHAP	SO₂	Sulfur Dioxide
HP	Horsepower	TAP	Toxic Air Pollutant
lbs/hr	Pounds per Hour	TPY	Tons per Year
LDAR	Leak Detection and Repair	TRS	Total Reduced Sulfur
M	Thousand	TSP	Total Suspended Particulate
MACT	Maximum Achievable Control Technology	USEPA	United States Environmental Protection Agency
MDHI	Maximum Design Heat Input	UTM	Universal Transverse Mercator
MM	Million	VEE	Visual Emissions Evaluation
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VOC	Volatile Organic Compounds
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOL	Volatile Organic Liquids
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supercedes and replaces previously issued Permit R13-2663B. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2663, R13-2663A, R13-2663B, R13-2663C, R13-2663D, R13-2663E and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 13-10.3]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

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.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

- 2.12.2. 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 Section 2.12.3 are not met.
- 2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
[45CSR§13-10.1]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **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§4. State-Enforceable only.]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class 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 25304-2345

If to the USEPA:

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. Operating Fee.

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions from the baghouses covered by this permit shall not exceed the following:

Source	PM		PM ₁₀	
	lb/hr	tpy	lb/hr	tpy
Limestone Processing System				
Baghouses	0.33	0.37	0.16	0.18
Dry SO ₃ Sorbent Handling System				
Baghouses	0.19	0.02	0.09	0.01
Wastewater Treatment Handling System				
Baghouse	0.01	0.01	0.04	0.01

- 4.1.2. The amount of limestone unloaded from barges (conveyor LS1) shall not exceed 1,500 tons per hour nor 1,125,000 tons per year based on a 12 month rolling total. For the purposes of this permit a 12 month rolling total means the sum of material throughput at the end of any given month for the previous 12 months.
- 4.1.3. The amount of limestone processed at the facility (conveyors LS2-A and LS2-B combined) shall not exceed 1000 tons per hour nor 1,125,000 tons per year based on a 12 month rolling total.
- 4.1.4. The amount of gypsum trucked to the landfill shall not exceed 600 tons per hour nor 1,750,000 tons per year based on a 12 month rolling total.
- 4.1.5. The amount of magnesium hydroxide used at the facility shall not exceed 22,703,000 gallons per year based on a 12 month rolling total.
- 4.1.6. The amount of Dry SO₃ sorbent used at the facility shall not exceed 96,200 tons per year based on a 12 month rolling total if Trona is used.
- 4.1.7. The amount of Dry SO₃ sorbent used at the facility shall not exceed 62,400 tons per year based on a 12 month rolling total if hydrated lime is used.
- 4.1.8. The amount of hydrated lime delivered to the facility for use in wastewater treatment shall not exceed 6,840 tons per year based on a 12 month rolling total.
- 4.1.9. The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spraybar shall be equipped with spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated.

The pump delivering the water shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haulroads and work areas where mobile equipment is used.

Additionally, at least twice per year the permittee shall apply a mixture of water and an environmentally acceptable dust control additive hereafter referred to as solution to all unpaved haul roads. The solution shall have a concentration of dust control additive sufficient to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads.

For paved haulroads, the use of a wet road sweeper is an acceptable alternative to a water truck as long as it is operated in such a manner as to assure minimization of the atmospheric entrainment of fugitive particulate emissions.

[45CSR§2-5.1.]

4.1.10. The maximum amount of fly ash handled by the Unit 3 fly ash handling system shall not exceed 600,000 tons (dry weight) per year (actual weight 690,000-780,000 tons per year based on 15%-30% moisture). Compliance with the throughput limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the fly ash transferred for the previous twelve consecutive calendar months.

4.1.11. A regular fugitive fly ash emissions inspection program shall be implemented and properly documented. The permittee shall, at a minimum, inspect all fly ash fugitive dust control systems weekly to ensure that they are operated as necessary and maintained in good working order. The inspection program shall include provisions to document any observed accumulations of fly ash on or around facility control equipment and proximate areas. The inspections shall be documented and maintained on site for a minimum of five years.

[Consent Order CO-R2-E-2005-2 §III.2]

4.1.12. Fugitive fly ash accumulations identified on or around all fugitive dust control systems per permit condition 4.1.11. above, shall be removed and properly disposed of as soon as reasonably and safely possible. Removal techniques may include, but are not limited to, the use of vacuum trucks, hand removal, or any other method so deemed suitable by the permittee.

[45CSR§2-5.1 and Consent Order CO-R2-E-2005-2 §III.3]

4.1.13. Emissions from the facility (transfer of the fly ash by truck) shall not exceed the following:

	PM		PM ₁₀	
	lb/hr	tpy	lb/hr	tpy
Emissions from 3E	0.97	4.23	0.97	4.23
EP-1	0.24	1.04	0.24	1.04
EP-2	0.24	1.04	0.24	1.04
EP-5	0.01	0.06	0.01	0.06
EP-8	0.01	0.06	0.01	0.06

Trucking Fugitives*	35.72	15.01	10.24	4.33
Total	37.19	21.44	11.71	10.76

4.1.14. The fly ash from units 1, 2, and 3 shall be conditioned such that the minimum moisture content of the ash shall be no less than 15% by wt. prior to being loaded into trucks.
[45CSR§2-5.1.]

4.1.15 The permittee shall operate the dry sorbent injection system as necessary to minimize the appearance of a trailing SO₃ plume, consistent with the technological capabilities of the system and good operation and maintenance practices..

4.1.16 In the event that a trailing plume is observed, the following actions shall be taken:

4.1.16.1 Review unit process and/or equipment data to verify that the plume is an SO₃ plume.

4.1.16.2 Verify sufficient dry sorbent injection flow.

4.1.16.3 Investigate for potential dry sorbent nozzle pluggage.

4.1.16.4 Increase injection rate, consistent with the technological capabilities and limitations of the system and with good operations and maintenance practices.

4.1.16.5 If system conditions allow, reducing unit load may be considered.

4.1.17 Maximum emissions to the atmosphere from Auxiliary Boiler #1 (AUX 1) shall not exceed the following limits:

Limits applicable before January 31, 2016:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	128.40	562.4
Sulfur Dioxide	379.85	1,663.74
Carbon Monoxide	26.75	117.17
PM	10.70	46.87
PM ₁₀	5.35	23.43
Volatile Organic Compounds	1.07	4.69

Limits applicable beginning January 31, 2016:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	128.40	56.24
Sulfur Dioxide	379.85	166.37
Carbon Monoxide	26.75	11.72
PM	10.70	4.69
PM ₁₀	5.35	2.34
Volatile Organic Compounds	1.07	0.47

- 4.1.18 Maximum emissions to the atmosphere from Auxiliary Boiler #3 (AUX 3) shall not exceed the following limits:

Limits applicable before January 31, 2016:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	120.00	525.60
Sulfur Dioxide	355.00	1,554.90
Carbon Monoxide	25.00	109.50
PM	10.00	43.80
PM ₁₀	5.00	21.90
Volatile Organic Compounds	1.00	4.38

Limits applicable beginning January 31, 2016:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	120.00	52.56
Sulfur Dioxide	355.00	155.49
Carbon Monoxide	25.00	10.95
PM	10.00	4.38
PM ₁₀	5.00	2.19
Volatile Organic Compounds	1.00	0.44

- 4.1.19 Maximum fuel feed rate to Auxiliary Boiler 1 (AUX 1) shall not exceed 128,400 gallons of fuel oil per day. The percent sulfur of the fuel oil shall not exceed 0.5%.
- 4.1.19.1 Beginning January 31, 2016, the annual heat input to Auxiliary Boiler 1 (AUX 1) shall not exceed 562,392 mmbtu/year.
- 4.1.20 Maximum fuel feed rate to Auxiliary Boiler 3 (AUX 3) shall not exceed 120,000 gallons of fuel oil per day. The percent sulfur of the fuel oil shall not exceed 0.5%.
- 4.1.20.1 Beginning January 31, 2016, the annual heat input to Auxiliary Boiler 3 (AUX 3) shall not exceed 525,600 mmbtu/year.
- 4.1.21 Auxiliary boilers AUX 1 and AUX 3 shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD no later than January 31, 2016.
[40 CFR §63.7495(b)]
- 4.1.22 The permittee shall complete an initial tune up of auxiliary boilers AUX 1 and AUX 3 by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than the compliance date specified in §63.7495.
[40 CFR §63.7510(e)]
- 4.1.23 The permittee shall complete a tune-up of auxiliary boilers AUX 1 and AUX 3 every 5 years as specified in paragraphs (a)(10)(i) through (vi) of 40 C.F.R. §7540 to demonstrate continuous compliance.
[40 CFR §63.7540(a)(12)]
- 4.1.24 **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2. 1. For the purposes of determining compliance with condition 4.1.2 of this permit, the permittee shall maintain monthly records of the amount of limestone unloaded from barges.
- 4.2. 2. For the purposes of determining compliance with condition 4.1.3 of this permit, the permittee shall maintain monthly records of the amount of limestone processed at the facility.
- 4.2. 3. For the purposes of determining compliance with condition 4.1.4 of this permit, the permittee shall maintain monthly records of the amount of gypsum trucked to the landfill. At the permittee's discretion the permittee may use records from belt scales located on belts G2 and G1B as a surrogate for records of actual material trucked to the landfill.
- 4.2. 4. For the purposes of determining compliance with condition 4.1.5 of this permit, the permittee shall maintain monthly records of the amount of magnesium hydroxide used at the facility.

- 4.2. 5. For the purposes of determining compliance with condition 4.1.6 of this permit, the permittee shall maintain monthly records of the amount of Trona used as dry SO₃ sorbent at the facility.
- 4.2. 6. For the purposes of determining compliance with condition 4.1.7 of this permit, the permittee shall maintain monthly records of the amount of hydrated lime used at the facility as dry SO₃ Sorbent.
- 4.2. 7. For the purposes of determining compliance with condition 4.1.8 of this permit, the permittee shall maintain monthly records of the amount of hydrated lime used at the facility for wastewater treatment.
- 4.2. 8. For the purposes of determining compliance with condition 4.1.9 of this permit, the permittee shall maintain records of the amount of dust control additive used at the facility and the dates the solution was applied.
- 4.2. 9. For the purposes of determining compliance with the maximum throughput limit set forth in condition 4.1.10 above, the facility shall maintain monthly (and calculated rolling yearly total) records of the amount of fly ash handled by the Unit 3 fly ash system.
- 4.2. 10. Each stack plume shall be visually observed (downstream of the moisture plume), at a minimum of, once per daylight shift.
- 4.2. 11. To determine compliance with requirement 4.1.17, 4.1.18, 4.1.19 and 4.1.20, the permittee shall monitor and maintain records of the maximum fuel feed rate to Auxiliary Boiler 1 (AUX 1) and Auxiliary Boiler 3 (AUX 3) and sulfur content of the fuel oil. In addition, to determine compliance with 4.1.19.1 and 4.1.20.1, the permittee shall maintain records of the monthly fuel feed rate and fuel heat content. These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request. Compliance with the annual limits in conditions 4.1.17, 4.1.18, 4.1.19.1 and 4.1.20.1 shall be based on a rolling yearly total.

4.3. Testing Requirements

[Reserved]

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** 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.
- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
 - a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. 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 inspect all fugitive dust control systems weekly from May 1 through September 30 and monthly (except for flyash, see permit condition 4.1.13) from October 1 through April 30, to ensure that they are operated as necessary and maintained in good working order. 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 weekly and/or monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.
[Consent Order CO-R2-E-2005-2 §III.4]
- 4.4.5. The permittee shall properly document any fugitive fly ash emissions not being minimized as discovered through the implementation of condition 4.1.13 of this permit, and repair such problems as soon as reasonably and safely possible. The permittee at a minimum shall maintain records of all scheduled and non-scheduled maintenance or corrective actions taken as a result of the weekly inspections, the times the fugitive dust control systems were inoperable, and any corrective actions taken. The existing facility work order system database is acceptable for demonstrating proper documentation and repair of such discoveries. The company shall make a good faith effort to notify DAQ as necessary regarding fugitive emission minimization concerns. Additional documentation of corrective actions taken shall be provided by the permittee to DAQ upon the request of the Director.

- 4.4.6. All records documenting the monitoring of compliance as required in the conditions in 4.2. and 4.3. of this permit shall be maintained in accordance with Condition 3.4.1. of this permit.
- 4.4.7 A record shall be kept of the date, time and personnel completing the visual inspection of the plume monitoring required by condition 4.2.10 of this permit. The record should also include a description of the plume and any actions taken. The record may include the inability of the visual inspector to observe a plume due to atmospheric conditions.
- 4.4.8 In order to determine compliance with 4.2.11, the permittee shall maintain records of the monthly fuel feed rate and fuel heat content.
- 4.4.9 You must keep records according to paragraphs (1) and (2) of this condition.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).

[40 CFR §63.7555(a)]

- 4.4.10 You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

[40 CFR §63.7555(i)]

- 4.4.11 You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[40 CFR §63.7555(j)]

- 4.4.12 All records required to comply with 40 CFR 63 Subpart DDDDD shall be kept in the following form:

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 CFR §63.7560]

- 4.4.13 For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

[40 CFR §63.7525(k)]

4.5. Reporting Requirements

- 4.5.1 Records of plume observations should be maintained on site and made available to the Director or his authorized representative for inspection upon request.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative _____

Date _____

Name and Title

(please print or type)

Name _____

Title _____

Telephone No. _____

Fax No. _____

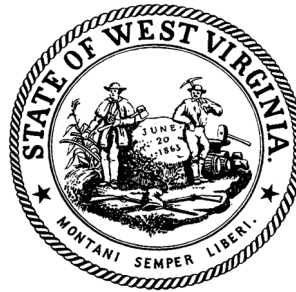
¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

West Virginia Department of Environmental Protection

*Harold D. Ward
Cabinet Secretary*

Class II Administrative Update



R13- 0075J

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 CSR 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Appalachian Power Company
Mountaineer Plant
053-00009**

A handwritten signature in blue ink, reading "Laura M. Crowder", is written over a horizontal line.

*Laura M. Crowder
Director, Division of Air Quality*

Issued: April 8, 2021

This permit will supercede and replace Permit R13-0075I.

Facility Location: New Haven, Mason County, West Virginia
Mailing Address: PO Box 419
New Haven, WV 25265
Facility Description: Power Plant
NAICS Codes: 221112
UTM Coordinates: 419.04 km Easting • 4,314.7 km Northing • Zone 17
Permit Type: Class I Administrative Update
Description of Change: Off-site transportation of Gypsum from emergency stock pile.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
1S	3E	Steam Generator #1	15,020 mmbtu/hr	ESP/SCR
2S	2E	Auxiliary Boiler #1	600 mmbtu/hr	N
3S	2E	Auxiliary Boiler #2	600 mmbtu/hr	N
4S	4E	Emergency Quench Pump	80 hp	N
5S	5E	Limestone Material Handling System	1000 TPH	N
6S	6E, 7E, 8E 9E	Gypsum Material Handling System	1500 TPH	Baghouses
7S	10E, 11E, 12E	Limestone Material Processing System	400 TPH	Baghouses
	FL3-3,CRL-3		350 TPH	FE
8S	13E	Magnesium Hydroxide System	1050 gal/hr	N
10S	15E, 16E	Hydrated Lime System	4.08 TPH	Baghouse
11S	17E, 18E	Trona System	2.5 TPH	Baghouse
12S	19E,20E, 21E	Chloride Purge Stream Treatment System	448 GPM	Baghouses
13S	22E	Sulfuric Acid Tank	6000 Gallon	N
14S	23E	Hydrochloric Acid Tank	6000 Gallon	N
15S	24E	Mine Link Conveyor	1800 tph	Baghouse

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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-0075I. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-0075, R13-0075A, R13-0075B, R13-0075C, R13-0075D, R13-0075E, R13-0075F, R13-0075G, R13-0075H, R13-0075I and R13-0075J and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.10 and 10.3.]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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 CFR Part 2.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

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; and
- 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.

2.12. Emergency

- 2.12.1. An “emergency” means any situation arising from sudden and reasonable 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.
- 2.12.2. 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 Section 2.12.3 are met.
- 2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
[45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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 CFR § 61.145, 40 CFR § 61.148, and 40 CFR § 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 CFR § 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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.]

3.2. Monitoring Requirements

[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 CFR Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **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§4. State Enforceable Only.]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

US EPA:

Section Chief
U.S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance
Division Air Section (3ED21)
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. **Operating Fee**

In accordance with 45CSR30 – Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. Maximum emissions to the atmosphere from Steam Generator #1 (ID # 1S) shall not exceed the following limits:

Pollutant	lb/hr	Averaging Time	TPY
Nitrogen Oxides	10,514	3-hours	46,051
Sulfur Dioxide	18,024	3-hours	78,945
Carbon Monoxide	427	24-hours	1,870
Particulate Matter	598	6-hours	2,620
PM ₁₀	138	6-hours	603
Volatile Organic Compounds	51	24-hours	224

- 4.1.1.1 Unit 1 shall be equipped with a flue gas desulfurization (FGD) system which shall be continuously operated for the reduction of SO₂ emissions.
- 4.1.1.2 Unit 1 shall be equipped with a selective catalytic reduction (SCR) system which shall be continuously operated for the reduction of NO_x emissions.
- 4.1.1.3 For the purposes of this permit “continuously operated” means that the SCR/FGD shall be operated at all times Unit 1 is in operation, except during a malfunction, consistent with the technological limitations, manufacturers specifications, and good engineering and maintenance practices for such equipment and the unit so as to minimize emissions to the greatest extent practicable.
- 4.1.2 Emissions from Steam Generator #1 (ID #1S) shall be vented to and controlled by the electrostatic precipitator (ID #1C), prior to the release to the atmosphere. The electrostatic precipitator shall be designed to achieve a minimum collection efficiency of 99.7% for particulate matter.
- 4.1.3 Maximum emissions to the atmosphere from Auxiliary Boiler #1 (ID # 2S) shall not exceed the following limits:

Limits applicable beginning January 31, 2016:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	99.67	43.65
Sulfur Dioxide	353.82	154.97
Carbon Monoxide	24.92	10.91
PM-10	4.98	2.18
Volatile Organic Compounds	1.00	0.44

- 4.1.4 Maximum emissions to the atmosphere from Auxiliary Boiler #2 (ID # 3S) shall not exceed the following limits:

Limits applicable beginning January 31, 2016

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
Nitrogen Oxides	99.67	43.65
Sulfur Dioxide	353.82	154.97
Carbon Monoxide	24.92	10.91
PM-10	4.98	2.18
Volatile Organic Compounds	1.00	0.44

- 4.1.5 Maximum fuel feed rate to Auxiliary Boiler #1 (ID#2S) and Auxiliary Boiler #2 (ID#3S) shall not exceed 135,500 gallons of fuel oil per day respectively. The percent sulfur of the fuel oil shall not exceed 0.5%.

4.1.5.1 Beginning January 31, 2016, the annual heat input to each auxiliary boiler (2S and 3S) shall not exceed 525,600 mmbtu/year.

- 4.1.6 The emergency quench pump (4S) shall not be operated more than 500 hours per year.
- 4.1.7 The amount of limestone unloaded from barges (conveyor ZU-CV-70001) shall not exceed 1500 tons per hour nor 1,092,000 tons per year based on a 12 month rolling total. For the purposes of this permit a 12 month rolling total means the sum of material throughput at the end of any given month for the previous 12 months.
- 4.1.8 The amount of limestone processed at the facility (conveyor ZU-CV-70005) shall not exceed 400 tons per hour nor 802,560 tons per year based on a 12 month rolling total.
- 4.1.9 The amount of gypsum loaded out to barge (conveyor ZB-CV-70011) shall not exceed 250 tons per hour nor 1,448,000 tons per year based on a 12 month rolling total.
- 4.1.10 The amount of gypsum and Chloride Purge Stream Waste Water Treatment Plant solids belted to the landfill (Conveyor ZB-CV-70003) shall not exceed 1700 tons per hour nor 4,026,000 tons per year based on a 12 month rolling total.
- 4.1.11 The amount of gypsum CPS Waste Water Treatment Plant solids trucked to the landfill shall not exceed 694 tons per hour nor 4,026,000 tons per year based on a 12 month rolling total.
- 4.1.12 The amount of magnesium hydroxide used at the facility shall not exceed 10,512,000 gallons per year based on a 12 month rolling total..
- 4.1.13 The amount of hydrated lime used at the facility shall not exceed 35,916 tons per year based on a 12 month rolling total..
- 4.1.14 The amount of Trona used at the facility shall not exceed 21,900 tons per year based on a 12 month rolling total.

- 4.1.15 The permittee shall not cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. **[45CSR2.5.1]**
- 4.1.16 The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spraybar shall be equipped with spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated.

The pump delivering the water shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haulroads and work areas where mobile equipment is used.

Additionally, at least twice per year the permittee shall apply a mixture of water and an environmentally acceptable dust control additive hereafter referred to as solution to all unpaved haul roads. The solution shall have a concentration of dust control additive sufficient to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads.

For paved haulroads, the use of a wet road sweeper is an acceptable alternative to a water truck as long as it is operated in such a manner as to assure minimization of the atmospheric entrainment of fugitive particulate emissions

- 4.1.17 a. The amount of gypsum from the emergency pile and CPS WWTP solids trucked to the landfill shall not exceed 694 tons per hour nor 162,400 tons per year based on a 12 month rolling total.
- b. The amount of gypsum trucked off-site for sale from the emergency pile shall not exceed 500 tons per hour nor 1,488,000 tons per year based on a 12 month rolling total.
- 4.1.18 The amount of chemicals received for the CPS WWTP shall not exceed the following:

Chemical	Hourly Rate	Annual Rate
Ferric Chloride	20 gal. per hour	74,000 gal/yr
Hydrochloric Acid	25 gal. per hour	108,000 gal/yr
Sulfuric Acid	10 gal. per hour	43,000 gal/yr
Hydrated Lime	920 lb/hr	2000 ton/yr

- 4.1.19. The amount of coal unloaded from the mine conveyor (M5) shall not exceed 1800 tons per hour nor 3,000,000 tons per year based on a 12 month rolling total.
- 4.1.20 The amount of limestone processed through Roll Crusher 7S shall not exceed 350 tons per hour nor 216,000 tons per year based on a 12 month rolling total.

- 4.1.21. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]
- 4.1.22 Auxiliary boilers 2S and 3S shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD no later than January 31, 2016.
[40 CFR §63.7495(b)]
- 4.1.23 The permittee shall complete an initial tune up of auxiliary boilers 2S and 3S by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than the compliance date specified in §63.7495.
[40 CFR §63.7510(e)]
- 4.1.24 The permittee shall completet a tune-up of auxiliary boilers 2S and 3Severy 5 years as specified in paragraphs (a)(10)(i) through (vi) of 40 C.F.R. §7540 to demonstrate continuous compliance.
[40 CFR §63.7540(a)(12)]

4.2. Monitoring Requirements

- 4.2.1. To determine compliance with requirement 4.1.1 of this permit, the permittee shall monitor and maintain Continuous Emission Monitors (CEMs) for Nitrogen Oxides (NO_x) and Sulfur Dioxide (SO₂) on Steam Generator #1 (ID # 1S). These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.2 To determine compliance with requirement 4.1.3, 4.1.4, and 4.1.5, the permittee shall monitor and maintain records of the maximum fuel feed rate to Auxiliary Boiler #1 (ID# 2S) and Auxiliary Boiler #2 (ID# 3S) and sulfur content of the fuel oil. In addition, to determine compliance with 4.1.5.1, the permittee shall maintain records of the monthly fuel feed rate and fuel heat content. These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.3 For the purposes of determining compliance with condition 4.1.6 of this permit, the permittee shall maintain monthly records of the number of hours the emergency quench pump is operated. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.4 For the purposes of determining compliance with condition 4.1.7 of this permit, the permittee shall maintain monthly records of the amount of limestone unloaded from barges. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.5 For the purposes of determining compliance with condition 4.1.8 of this permit, the permittee shall maintain monthly records of the amount of limestone processed at the facility. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.

- 4.2.6 For the purposes of determining compliance with condition 4.1.9 of this permit, the permittee shall maintain monthly records of the amount of gypsum loaded out to barges. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.7 For the purposes of determining compliance with condition 4.1.10 of this permit, the permittee shall maintain monthly records of the amount of gypsum and CPS WWTP Solids belted to the landfill. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.8 For the purposes of determining compliance with condition 4.1.11 of this permit, the permittee shall maintain monthly records of the amount of gypsum and CPS WWTP solids trucked to the landfill. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.9 For the purposes of determining compliance with condition 4.1.12 of this permit, the permittee shall maintain monthly records of the amount of magnesium hydroxide used at the facility. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.10 For the purposes of determining compliance with condition 4.1.13 of this permit, the permittee shall maintain monthly records of the amount of hydrated lime used at the facility. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.11 For the purposes of determining compliance with condition 4.1.14 of this permit, the permittee shall maintain monthly records of the amount of Trona used at the facility. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.12 For the purposes of determining compliance with condition 4.1.16 of this permit, the permittee shall maintain records of the amount of dust control additive used at the facility and the dates the solution was applied. These records shall be maintained on site for a period of not less than five (5) years. The records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.13 a. For the purposes of determining compliance with condition 4.1.17.a. of this permit, the permittee shall maintain monthly records of the amount of gypsum and CPS WWTP solids trucked to the landfill. These records shall be maintained on site for a period of not less than five (5) years. These records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- b. For the purposes of determining compliance with condition 4.1.17.b. of this permit, the permittee shall maintain monthly records of the amount of gypsum trucked offsite. These records shall be maintained on site for a period of not less than five (5) years. These records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.

- 4.2.14 For the purposes of determining compliance with condition 4.1.18 of this permit, the permittee shall maintain monthly records of the amount of chemicals used at the CPS WWTP facility. These records shall be maintained on site for a period of not less than five (5) years. These records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.15 For the purposes of determining compliance with condition 4.1.19 of this permit, the permittee shall maintain monthly records of the amount of coal received from the mine conveyor. These records shall be maintained on site for a period of not less than five (5) years. These records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.
- 4.2.16 For the purposes of determining compliance with condition 4.1.20 of this permit, the permittee shall maintain monthly records of the amount of limestone processed through the roll crusher. Alternatively, the permittee may keep records certifying the maximum hourly capacity of the crusher and the daily hours of operation of said crusher. These records shall be maintained on site for a period of not less than five (5) years. These records shall be certified and made available to the Director or a duly authorized representative of the Director upon request.

4.3. Testing Requirements

[Reserved]

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** 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.
- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
 - a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. In order to determine compliance with 4.2.2, the permittee shall maintain records of the monthly fuel feed rate and fuel heat content.

4.4.5 You must keep records according to paragraphs (1) and (2) of this condition.

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).

[40 CFR §63.7555(a)]

4.4.6 You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

[40 CFR §63.7555(i)]

4.4.7 You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[40 CFR §63.7555(j)]

4.4.8 All records required to comply with 40 CFR 63 Subpart DDDDD shall be kept in the following form:

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 CFR §63.7560]

4.4.9 For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

[40 CFR §63.7525(k)]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name & Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

Construction Permit



R13-3493

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Blue Racer Midstream, LLC
Natrium Power Plant
051-00142

A blue ink signature of Laura M. Crowder, written in a cursive style.

Laura M. Crowder
Director, Division of Air Quality

Issued: December 15, 2020

Facility Location: Proctor, Marshall County, West Virginia
Mailing Address: 5949 Sherry Lane, Suite 1700, Dallas, TX 75225
Facility Description: Natural Gas Combined Heat and Power Plant
SIC/NAICS Code: 4911/221112
UTM Coordinates: Easting: 512.1 km Northing: 4,400.8 km Zone: 17
Latitude/Longitude: 39.75703/-80.85991
Permit Type: Construction
Description: Construction of a nominal 230 mW_e gas-fired combined heat and power plant to provide heat duty and electrical power to the existing and co-located Natrium Extraction and Fractionation Processing Plant.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement date of any operation authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device ⁽¹⁾
Combustion Turbines⁽²⁾					
<i>Scenario A</i>					
TB1A	TB1AE	GE LM6000PG SPRINT Combustion Turbine #1	2021	55.275 mW, 482.6 mmBtu	OC1, SCR1
TB2A	TB2AE	GE LM6000PG SPRINT Combustion Turbine #2	2021	55.275 mW, 482.6 mmBtu	OC2, SCR2
TB3A	TB3AE	GE LM6000PG SPRINT Combustion Turbine #3	2021	55.275 mW, 482.6 mmBtu	OC3, SCR3
TB4A	TB4AE	GE LM6000PG SPRINT Combustion Turbine #4	2021	55.275 mW, 482.6 mmBtu	OC4, SCR4
<i>Scenario B</i>					
TB1B	TB1BE	Siemens SGT-800 Combustion Turbine #1	2021	57.863 mW, 496.2 mmBtu	OC1, SCR1
TB2B	TB2BE	Siemens SGT-800 Combustion Turbine #2	2021	57.863 mW, 496.2 mmBtu	OC2, SCR2
TB3B	TB3BE	Siemens SGT-800 Combustion Turbine #3	2021	57.863 mW, 496.2 mmBtu	OC3, SCR3
TB4B	TB4BE	Siemens SGT-800 Combustion Turbine #4	2021	57.863 mW, 496.2 mmBtu	OC4, SCR4
Other Combustion Devices					
TB1A/B	TB1A/BE	Duct Burner #1	2021	475.1 mmBtu	OC1, SCR1
TB2A/B	TB2A/BE	Duct Burner #2	2021	475.1 mmBtu	OC2, SCR2
TB3A/B	TB3A/BE	Duct Burner #3	2021	475.1 mmBtu	OC3, SCR3
TB4A/B	TB4A/BE	Duct Burner #4	2021	475.1 mmBtu	OC4, SCR4
FH1	FH1E	Fuel Gas Heater #1	2021	9.9 mmBtu	None
FH2	FH2E	Fuel Gas Heater #2	2021	9.9 mmBtu	None
EG1	EG1E	Emergency Generator	2021	1,676 hp	None
FP1	FP1E	Emergency Fire Pump Engine	2021	700 hp	None
Storage Tanks					
OT1-4	OT1E-OT4E	Lubricating Oil Tank #1-4 ⁽³⁾	2021	5,000 gal	None
OT5-8	OT5E-OT8E	Waste Oil Tank #1-4 ⁽³⁾	2021	250 gal	None
AT1	AT1E	Ammonia/Urea Storage Tank ⁽⁴⁾	2021	60,000 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device ⁽¹⁾
WS1-4	WS1E-4E	Washout Sumps #1-4 ⁽³⁾	2021	250 gal	None
GT1-1	GT1E-4E	Glycol Tanks #1-4 ⁽³⁾	2021	1,000 gal	None
FT1	FT1E	Generator Fuel Tank ⁽³⁾	2021	25 gal	None
FT2	FT2E	Fire Pump Engine Fuel Tank ⁽³⁾	2021	25 gal	None
<u>Fugitive Emission Sources</u>					
EL1	n/a	Equipment Leaks	2021	n/a	n/a

- (1) OC = Oxidation Catalyst; SCR = Selective Catalytic Reduction
- (2) BRM has permitted two (2) distinct and independent operational scenarios involving different sets of four (4) Combustion Turbines (CTs). Only one scenario will be permitted for the site. No more than four CTs (of the same set) will be permitted to be operated at the site.
- (3) Pursuant to 45CSR13, Table 45-13B, defined as a *de minimis* source but included here for completeness.
- (4) Ammonia/Urea are not regulated pollutants but the storage tank is included here for completeness.

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 (45 CSR § 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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	pph	Pounds per Hour
DAQ	Division of Air Quality	ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per million by volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
mW	megawatt	VOL	Volatile Organic Liquids
mW-h	megawatt-hour		
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.*

2.4. Term and Renewal

- 2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3493 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.10 and 13-10.3]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

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.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

2.12.2. 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 Section 2.12.3 are met.

2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

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

2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

- 3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **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§4. State-Enforceable only.]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as 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 25304-2345

If to the US EPA:

Section Chief
U.S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air Section (3ED21)
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement¹:
DEPAirQualityReports@wv.gov

¹ For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.

- 3.5.4. **Operating Fee.** In accordance with 45CSR30 - Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Only the emission unit/source identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, is authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R13-3493, the emission unit/source identified under Table 1.0 of this permit shall not exceed the listed maximum design capacity and comply with any other information provided under Table 1.0.

4.1.2. Combustion Turbines

The combustion turbines (CTs) shall meet the following requirements:

- a. This permit only authorizes construction and operation of one (1) set of the four (4) same make/model CTs defined as either “Scenario A” or “Scenario B” under Table 1.0 of this permit. This permit does not authorize any scenario where more than four (4) CTs are authorized;
- b. Each group of authorized CTs shall be the make, model, and size as specified under Table 1.0 and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof;
- c. With the exception of operation during times defined as “startup” or “shutdown” pursuant to 4.2.3., at all times each CT is in operation, each unit shall be controlled by Selective Catalytic Reduction (SCR) for control of NO_x emissions and an Oxidation Catalyst for control of CO and unburnt hydrocarbon (UHC) emissions;
- d. Each CT shall be fired using good combustion practices. Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.;
- e. The maximum emissions from each CT shall not exceed the limits (during the specific operational times) as given in the following table; and

Table 4.1.2(e): CT Emission Limits

GE LM6000PG SPRINT Emission Limits				
Pollutant	lbs/hour			tons/year
	Startup	Shutdown	Steady-State	
CO	152.90	95.82	2.04	10.40
NO_x	41.86	41.86	3.35	15.13
PM_{2.5}/PM₁₀/PM⁽¹⁾	3.19	3.19	3.86	16.91
SO₂	1.64	1.64	1.64	7.19
VOC	4.81	4.81	0.44	1.97
Formaldehyde	0.34	0.34	0.34	1.50
Total HAPs	0.49	0.49	0.49	2.17

Siemens SGT-800 Emission Limits				
Pollutant	lbs/hour			tons/year
	Startup	Shutdown	Steady-State	
CO	51.84	12.48	0.61	10.74
NO_x	25.68	20.88	3.49	20.35
PM_{2.5}/PM₁₀/PM⁽¹⁾	0.72	0.48	3.52	14.86
SO₂	1.69	1.69	1.69	7.39
VOC	2.88	0.48	0.35	1.86
Formaldehyde	0.13	0.13	0.13	0.57
Total HAPs	0.29	0.29	0.29	1.25

(1) Includes condensables.

- f. The CTs shall each not operate in the modes defined as “startup” and “shutdown” (as defined under 4.2.3) in excess of the annual hourly limits given in the following table:

Table 4.1.2(f): CT Annual Startup/Shutdown Hours of Operation Limits

CT	Startup	Shutdown
GE LM6000PG SPRINT	12	12
Siemens SGT-800	256	256

- g. At the time operation of the CTs commences, the permittee shall have, and make available to the Director upon request, guarantees from the appropriate equipment vendors that the following maximum emission rates are achievable from the equipment in question:

Table 4.1.2(g): CT Vendor Guarantee Requirements (in ppm_{vd} @ 15% O₂)

Pollutant	GE LM6000PG SPRINT		Siemens SGT-800	
	Uncontrolled	Controlled	Uncontrolled	Controlled
CO	94.0	2.0	5.0	0.5
NO_x	25.0	2.0	35.0	1.8
PM_{2.5}/PM₁₀/PM⁽²⁾	n/a	n/a	2.5	n/a
VOC	11.0	1.0	5.0	0.5
Formaldehyde	n/a	n/a	0.1	0.1

- h. The amount of power supplied by each CT to the utility distribution systems (not used at the plant and supplied instead to the “grid”) shall be less than 219,000 mW-hour per year; and
- i. **40 CFR 60, Subpart KKKK**
The CTs shall meet all applicable requirements under 40 CFR 60, Subpart KKKK including the following:

(1) **What emission limits must I meet for nitrogen oxides (NO_x)?**

- (i) You must meet the emission limits for NO_x specified in Table 1 to this subpart.
[40 CFR§60.4320(a)]

(ii) **Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines**

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO _x emission standard
New turbine firing natural gas	>50 MMBtu/h and <850 MMBtu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb/MWh).

[40 CFR60, Subpart KKKK, Table 1]

(2) **What emission limits must I meet for sulfur dioxide (SO₂)?**

- (ii) If your turbine is located in a continental area, you must comply with either paragraph (a)(1), (a)(2), or (a)(3) of this section. If your turbine is located in Alaska, you do not have to comply with the requirements in paragraph (a) of this section until January 1, 2008.

[40 CFR§60.4330(a)]

- (A) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output;

[40 CFR§60.4330(a)(1)]

- (B) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

[40 CFR§60.4330(a)(2)]

4.1.3. **Duct Burners**

The Duct Burners, identified as TB1A/B through TB2A/B, shall meet the following requirements:

- a. Each Duct Burner will not exceed an MDHI of 475.1 mmBtu and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof;
- b. At all times each Duct Burner is in operation, the exhaust from each unit shall be controlled by Selective Catalytic Reduction (SCR) for control of NO_x emissions and an oxidation catalyst for control of CO and unburnt hydrocarbon (UHC) emissions. The Duct Burners shall not be operated during times defined as “startup” or “shutdown” pursuant to 4.2.3.;
- c. Each Duct Burner shall be fired using good combustion practices. Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.;
- d. The maximum emissions from each Duct Burner shall not exceed the limits as given in the following table; and

Table 4.1.3(d): Per-Duct Burner Emission Limits

Pollutant	lbs/hour	tons/year
CO	2.12	1.86
NO _x	3.50	3.05
PM _{2.5} /PM ₁₀ /PM ⁽¹⁾	3.65	3.19
SO ₂	0.28	0.24
VOC	0.13	0.11
Formaldehyde	0.03	0.03
Total HAPs	0.05	0.04

(1) Includes condensables.

- e. At the time operation of the Duct Burners commences, the permittee shall have, and make available to the Director upon request, guarantees from the appropriate equipment vendors that the following maximum emission rates are achievable from the Duct Burners:

Table 4.1.2(e): Duct Burner Vendor Guarantee Requirements (in ppm_{vd} @ 15% O₂)

Pollutant	Requirement
CO	2.0
NO _x	2.0
VOC	1.0

- f. The Duct Burners shall each not combust in excess of 610.81 mmscf of fuel gas per year;
- g. **45CSR2**
The Duct Burners are subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under (1) through (3).
- (1) The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from the fuel burning units which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]
- (2) The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:
- (i) The product of 0.09 and the total design heat input for the fuel burning units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than twelve hundred (1200) pounds per hour of particulate matter shall be discharged into the open air.
[45CSR§2-4.1a]
- (3) The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-

ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.

[45CSR§2-9.1]

h. 45CSR10

The Duct Burners are subject to the applicable limitations and standards under 45CSR10, including the requirement as given below under (1) and (2).

- (1) The permittee shall not cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from the fuel burning units measured in terms of pounds per hour, in excess of the product of 3.2 and the total design heat of the boilers in million BTU's per hour.

[45CSR§10-3.1]

- (2) No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

[45CSR§10-5.1]

i. 40 CFR 60, Subpart KKKK

The Duct Burners shall meet all applicable requirements under 40 CFR 60, Subpart KKKK including the requirements given under 4.1.2(i).

4.1.4. Fuel Gas Heaters

The Fuel Gas Heaters, as identified as FH1 and FH2, shall each not exceed an MDHI of 9.90 mmBtu/hr, and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof. The boilers shall operate in accordance with the following:

- a. The maximum emissions from each Fuel Gas Heater shall not exceed the limits given in the following table:

Table 4.1.4(a): Per-Fuel Gas Heater Emission Limits

Pollutant	PPH	TPY
CO	0.82	3.57
NO _x	0.49	2.13
PM _{2.5} /PM ₁₀ /PM ⁽²⁾	0.07	0.32
SO ₂	0.01	0.03
VOC	0.05	0.23

- c. As the annual emission limits given under Table 4.1.4(a) are based on the Fuel Gas Heaters operating 8,760 hours per year, there are no annual restrictions on the fuel combusted or hours of operation for the units; and

d. **45CSR2**

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

[45CSR§2-3.1.]

4.1.5. **Emergency Generator & Emergency Fire Pump**

The Emergency Generator & Emergency Fire Pump, identified as EG1 and FP1, respectively, shall meet the following requirements:

- a. The Emergency Generator shall not exceed 1,676 hp, shall be fired only with diesel fuel with a maximum sulfur content not to exceed 0.05%, and shall not operate in excess of 100 hours per year during times not defined as emergencies. The Emergency Fire Pump shall not exceed 700 hp, shall be fired only with diesel fuel with a maximum sulfur content not to exceed 0.05%, and shall not operate in excess of 100 hours per year during times not defined as emergencies ;
- b. The maximum emissions from the Emergency Generator shall not exceed the limits given in the following table:

Table 4.1.5(b): Emergency Generator Emission Limits

Pollutant	PPH	TPY
CO	12.13	0.61
NO _x	16.45	0.82
PM ⁽¹⁾	0.77	0.04
SO ₂	3.43	0.17
VOCs	5.60	0.28
HAPs	0.01	0.01

(1) All particulate matter emissions are assumed to be PM_{2.5} or smaller. Includes condensables.

- c. The maximum emissions from the Emergency Fire Pump shall not exceed the limits given in the following table:

Table 4.1.5(c): Emergency Fire Pump Emission Limits

Pollutant	PPH	TPY
CO	5.07	0.25
NO _x	4.29	0.21
PM ⁽¹⁾	0.32	0.02
SO ₂	1.44	0.07
VOCs	1.46	0.07
HAPs	0.01	0.01

(1) All particulate matter emissions are assumed to be PM_{2.5} or smaller. Includes condensables.

d. **40 CFR 60, Subpart IIII Based Not-to-Exceed (NTE) Standards**

Pursuant to the language given under §60.4205(e), the Emergency Generator and the Emergency Fire Pump are subject to the following NTE Standards:

Table 4.1.5(d): Subpart IIII NTE Standards

Engine Type	Emission Standards - g/kW-hr (g/hp-hr)		
	NMHC + NO _x	CO	PM
Emergency	8.0 (6.0)	4.4 (3.3)	0.25 (0.19)
Fire Pump	5.0 (3.7)	4.4 (3.3)	0.25 (0.19)

e. **40 CFR 60, Subpart IIII**

The Emergency Generator and the Emergency Fire Pump are subject to all applicable requirements under 40 CFR 60, Subpart IIII.

f. **40 CFR 63, Subpart ZZZZ**

An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

[40 CFR §63.6590(c)]

4.1.6. **Storage Tanks**

Tank size and material stored shall be limited as specified under Table 1.0 of this permit.

4.1.7. **Control Devices**

Use of SCR systems and oxidation catalysts shall be in accordance with the following:

- a. The SCR systems and oxidation catalysts shall be designed, operated and maintained according to good engineering practices and manufacturing recommendations so as to achieve, at a minimum, the following limits on each emission unit:

(1) **LM6000PG**

- (i) NO_x: 2.0 ppmvd @ 15% O₂;
- (ii) CO: 2.0 ppmvd @ 15% O₂; and
- (iii) VOCs: 1.0 ppmvd.

(2) **SGT-800**

- (i) NO_x: 1.75 ppmvd @ 15% O₂;
- (ii) CO: 0.5 ppmvd @ 15% O₂;
- (iii) VOCs: 0.5 ppmvd @ 15% O₂; and
- (iv) Formaldehyde: 0.1 ppmvd @ 15% O₂.

(3) **Duct Burner**

- (i) NO_x: 2.0 ppmvd @ 15% O₂;
- (ii) CO: 2.0 ppmvd @ 15% O₂; and
- (iii) VOCs: 1.0 ppmvd @ 15% O₂.

- b. Catalyst performance shall be monitored and catalysts replaced according to good engineering practices and manufacturing recommendations;
- c. The permittee shall operate each SCR in the optimal aqueous ammonia injection range as determined according to manufacturer recommendations or during the required performance testing. Ammonia/Urea slip from each SCR shall not exceed 5 ppmvd at 15% O₂; and
- d. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.10.]

4.1.8. **Component Leaks**

The permittee shall mitigate the release of fugitive emissions according to the following requirements:

- a. The permittee shall, within 180 days of facility startup, submit a modification or Class II Administrative Update, as applicable pursuant 45CSR13, to revise the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed in Attachment N of Permit Application R13-3493 or any amendments or revisions submitted thereto if the as-built number of components results in calculated VOC or HAP emissions in excess of those given under Attachment N.

4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements

4.2.1. **Maximum Design Capacity Compliance**

Compliance with the maximum design capacity limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate that does not exceed the specified value under 4.1.

4.2.2. **Maximum Design Heat Input Compliance**

Compliance with the various combustion unit MDHI limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under 4.1.

4.2.3. **Startup/Shutdowns**

For the purposes of demonstrating compliance with the maximum startup and shutdown operating hours as given under 4.1.2(f), the permittee shall monitor and record the monthly and rolling twelve (12) month total of hours each CT is operating in startup and shutdown mode. The record shall show the distinct hours of operation in each mode. "Startup" and "Shutdown" shall be defined as those periods where the exhaust temperature of the CTs is not sufficient for the SCR's and Oxidation Catalysts to effectively meet the limitations given under 4.1.7.

4.2.4. **Grid Power Distribution**

For the purposes of demonstrating compliance with the maximum power export limitations as given under 4.1.2(h), the permittee shall monitor and record the monthly and rolling twelve (12) month total watts (in mW) exported to the power grid (i.e., not used for on-site power).

4.2.5. **Duct Burner Fuel Usage**

For the purposes of demonstrating compliance with the maximum Duct Burner fuel usage limitations as given under 4.1.3(f), the permittee shall monitor and record the monthly and rolling twelve (12) month total of the volume of fuel used in each Duct Burner.

4.2.6. **CEMS**

Within 60 days after achieving the maximum power generation rate at which the facility will be operated, but not later than 180 days after initial startup, the permittee shall, to show continuous compliance with the NO_x emission limits as given under Table 4.1.2(e), install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of NO_x from each CT. The CEMS shall be installed, maintained, and operated according to the applicable requirements given under 40 CFR 60, Subpart KKKK and any additional Subparts referenced thereto. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.

4.2.7. **45CSR2 Visual Emissions Monitoring**

At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with 4.1.3(d) and 4.1.4(g). Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

4.2.8. **Control Devices**

The permittee shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the oxidation catalysts:

- a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices to ensure functional and effective operation of each unit. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices by following the catalyst manufacturer emissions related operating and maintenance recommendations, or develop, implement, or follow a site-specific maintenance plan.
- b. To demonstrate compliance with section 4.2.8(a), the permittee shall maintain a copy of the site specific maintenance plan or manufacturer maintenance plan.

4.3. Testing Requirements

- 4.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

4.3.2. **Combustion Turbines/Duct Burners**

The permittee shall meet the following performance testing requirements with respect to the CTs:

- a. The permittee shall, pursuant to the timing and other requirements of 40 CFR 60, Subparts KKKK, conduct, or have conducted, performance testing on each CT and Duct Burner to determine the emission rates of NO_x, during operation in non-startup/shutdown mode (as defined under 4.2.3). The testing shall, in addition to meeting all applicable requirements under 40 CFR 60, Subpart KKKK, be in accordance with 3.3.1. Results of the performance testing shall, unless granted in writing a waiver by the Director, be used to determine compliance with the NO_x emission limits given under 4.1.2(e) and 4.1.3(d). After the initial test, subsequent NO_x performance testing shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less

than or equal to 75 percent of the applicable emission limits, then the permittee may reduce the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test); and

- b. In addition to the required performance testing under 4.3.2(a), the permittee shall, within 60 days after achieving the maximum capacity each CT/Duct Burner combination will be operated, but not later than 180 days after initial startup, conduct, or have conducted, a performance test on each CT and Duct Burner to determine compliance with the emission limits of CO, during operation in non-startup/shutdown mode as defined 4.2.1(e). After the initial tests, subsequent performance testing on CO shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less than or equal to 75 percent of the applicable emission limits, then the permittee may reduce the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test). The permittee shall use the test methods specified in Table 4.3.2(b) unless granted approval in writing by the Director to use an alternative test method in a protocol submitted pursuant to 3.3.1(c).

Table 4.3.2(b): Combustion Turbine Test Methods

Pollutant	Test Method ⁽¹⁾
CO	Method 10B

(1) All test methods refer to those given under 40 CFR 60, Appendix A

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- The date, place as defined in this permit and time of sampling or measurements;
- The date(s) analyses were performed;
- The company or entity that performed the analyses;
- The analytical techniques or methods used;
- The results of the analyses; and
- The operating conditions existing at the time of sampling or measurement.

- 4.4.2. For the purpose of demonstrating compliance with any visible emissions monitoring required by the Director, the permittee shall maintain records 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). For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name and Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.



The Chemours Company FC, LLC

901 W DuPont Avenue

Belle, WV 25015

Belle Plant

Laura Jennings
WVDEP, DAQ
601 57th Street SE
Charleston, WV 25304

RE: Belle Plant NOX Compliance Order

Dear Laura,

Enclosed please find a signed original of the subject consent order.

Sincerely,

A handwritten signature in blue ink that reads 'LeAnne'.

LeAnne S. Wheeler
Senior Environmental Consultant





west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0475

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

**COMPLIANCE ORDER
ISSUED UNDER THE
AIR POLLUTION CONTROL ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 5, SECTION 4**

TO: The Chemours Company FC, LLC
c/o Mr. Timothy L. Byrd
901 West Dupont Avenue
Belle, WV 20755

DATE: ~~December 1, 2016~~ ^{January 4, 2017}
ORDER NO.: CO-R40-C-2016-30
FACILITY ID NO.: 039-00001

INTRODUCTION

This Consent Order is issued by the Director of the Division of Air Quality (hereinafter, "Director"), under the authority of West Virginia Code, Chapter 22, Article 5, Section 1 et seq. to The Chemours Company FC, LLC ("Chemours and/or Company").

FINDINGS OF FACT

In support of this Order, the Director hereby finds the following:

1. Chemours operates a chemical facility that includes a 275 mmBtu/hr natural gas fired boiler ("Boiler 10") located in Belle, West Virginia.
2. Boiler 10 has a maximum design heat input greater than 250 mmBtu/hr and is not subject to the federal Cross-State Air Pollution Rule ("CSAPR") NO_x Ozone Season Trading Program established under 40 CFR Part 97, Subpart BBBBB, or an equivalent trading program established under regulations approved as a state implementation plan revision pursuant to 40 CFR §52.38(b)(5).
3. Chemours is subject to 45 C.S.R. 40, *Control of Ozone Season Nitrogen Oxides Emissions*, because they meet applicability requirement §4.1, which states "The owner or operator of a unit that has a maximum design heat input greater than 250 mmBtu/hr, except for any unit subject to the federal Cross-State Air Pollution Rule NO_x Ozone Season Trading

Promoting a healthy environment.

Program established under 40 CFR Part 97, Subpart BBBBB, or an equivalent trading program established under regulations approved as a state implementation plan revision pursuant to 40 CFR §52.38(b)(5), shall comply with the ozone season NOX emission limitation, and monitoring, recordkeeping and reporting requirements for ozone season emissions of NOX set forth in sections 5 and 6.”

4. This Order does not make any finding of violation against The Chemours Company.

ORDER FOR COMPLIANCE

Now therefore, in accordance with Chapter 22, Article 5, Section 1 et seq. of the West Virginia Code, it is hereby agreed between the parties and ORDERED by the Director:

1. Chemours shall limit emissions of NO_x to a maximum of 0.20 lb/MMBtu during the NO_x ozone season (May 1 through September 30 each year), specifically for Boiler 10.
2. Chemours shall comply with the ozone season NO_x emission limitation and the monitoring, recordkeeping, and reporting requirements for ozone season emissions of NO_x set forth in 45CSR40 “**Control Of Ozone Season Nitrogen Oxides Emissions**”, Section 6, which states “The owner or operator of an applicable unit under subsection 4.1 shall operate certified continuous emission monitor (“CEMs”) systems necessary to attribute ozone season NO_x mass emissions to each unit, in accordance with 40 CFR Part 75, Subpart H. NO_x mass emissions measurements recorded and reported in accordance with 40 CFR Part 75, Subpart H shall be used to determine a unit’s compliance with the ozone season NO_x emission limitation”. Chemours shall comply with all provisions set forth in 40 CFR Part 75 for the NO_x CEMs.
3. If the Company fails to complete any of the requirements contained in this Order to the reasonable satisfaction of the Director or within the time limits set forth herein, the Director may order the Company to pay a stipulated penalty of one thousand dollars (\$1,000.00) per day to the Air Pollution Education and Environment Fund for each day that the action remains incomplete. The Director shall first notify the Company in writing that the facility is in violation of the terms of conditions of the Order, and the stipulated penalty shall then become immediately due and payable. Payments made pursuant to this paragraph are not tax-deductible expenditures for purposes of State or federal law.

OTHER PROVISIONS

1. Chemours hereby waives its right to appeal this Order under the provisions of Chapter 22, Article 5, Section 1 of the Code of West Virginia. Under this Order Chemours agrees to take all actions required by the terms and conditions of this Order and consents to and will not contest the Director’s jurisdiction regarding this Order. However, Chemours does not admit to any factual and legal determinations made by the Director and reserves all rights and defenses available regarding liability or responsibility in any proceedings regarding Chemours other than proceedings, administrative or civil, to enforce this Order.

2. If any event occurs which causes delay in the achievement of the requirements of this Order. Chemours shall have the burden of proving that the delay was caused by circumstances beyond its reasonable control which could not have been overcome by due diligence (i.e., force majeure). Force majeure shall not include delays caused or contributed to by the lack of sufficient funding. Within three (3) working days after Chemours becomes aware of such a delay, notification shall be provided to the Director and shall, within ten (10) working days of initial notification, submit a detailed written explanation of the anticipated length and cause of the delay the measures taken and/or to be taken to prevent or minimize the delay, and a timetable by which Chemours intends to implement these measures. If the Director agrees that the delay has been or will be caused by circumstances beyond the reasonable control of Chemours (i.e., force majeure), the time for performance hereunder shall be extended for a period of time equal to the delay resulting from such circumstances. A force majeure amendment granted by the Director shall be considered a binding extension of this Order and of the requirements herein. The determination of the Director shall be final and not subject to appeal.
3. Compliance with the terms and conditions of this Order shall not in any way be construed as relieving Chemours of the obligation to comply with any applicable law, permit, other order, or any other requirement otherwise applicable. Violations of the terms and conditions of this Order may subject Chemours to additional penalties and injunctive relief in accordance with the applicable law.
4. The provisions of this Order are severable and should a court or board of competent jurisdiction declare any provisions to be invalid or unenforceable, all other provisions shall remain in full force and effect.
5. This Order is binding on Chemours, its successors and assigns.



The Chemours Company FC/LLC

01/04/2017
Date



William F. Durham, Director
Division of Air Quality

12-01-2016
Date

Class I Administrative Update Permit



R13-2608E

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**AEP Generation Resources, Inc.
Mitchell Plant
051-00005**

A blue ink signature of William F. Dunham is written over a horizontal line.

William F. Dunham
Deputy Director

Issued: May 12, 2014

This permit will supersede and replace Permit R13-2608D.

Facility Location: State Route 2
Cresap/Moundsville, Marshall County, West Virginia

Mailing Address: Mitchell Plant
P.O. Box K
Moundsville, WV 26041

Facility Description: Electric Generating Plant

NAICS Codes: 221112

UTM Coordinates: 516.0 km Easting • 4,409.0 km Northing • Zone 17

Permit Type: Administrative Update

Description of Change: This update is to correctly codify the term of the limited use for Boiler Aux-1 in the terms as defined in the Subpart DDDDD of Part 63 of Chapter 40 and correctly define the compliance path for Aux-1 under Subpart Db of Part 60 in Chapter 40.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
1S - Limestone Material Handling				
BUN-1		Limestone Unloading Crane	1,000 TPH	None
RH-1		Limestone Unloading Hopper	60 Tons	WS/PE
VF-1		Limestone Unloading Feeder	750 TPH	FE
BC-1		Limestone Dock/Connecting Conveyor	750 TPH	PE
TH-1		Limestone Transfer House #1	750 TPH	FE
BC-2		Limestone Storage Pile Stacking Conveyor	750 TPH	PE
LSSP		Limestone Active/Long-Term Stockpile	41,300 Tons	None
2S - Gypsum Material Handling				
BC-8		Vacuum Collecting Conveyor	200 TPH	PE
TH-3		Gypsum Transfer House #3	200 TPH	FE
BC-9		Connecting Conveyor	200 TPH	PE
TH-4		Gypsum Transfer House #4	200 TPH	FE
BC-10		Connecting Conveyor	200 TPH	PE
TH-5		Gypsum Transfer House #5	200 TPH	FE
BC-11		Connecting Conveyor	200 TPH	PE
TH-6		Gypsum Transfer House #6	200 TPH	FE
BC-12		Stacking Tripper Conveyor	200 TPH	PE
GSP		Gypsum Stockpile	15,600 Tons	FE
PSR-1		Traveling Portal Scraper Reclaimer	1,000 TPH	FE
BC-14		Reclaim Conveyor	1,000 TPH	PE
TH-7		Transfer House #7	1,000 TPH	FE
BC-13		Bypass Conveyor	200 TPH	PE
BC-15		Connecting Conveyor	1,000 TPH	PE
TH-1		Transfer House #1	1,000 TPH	FE
BC-16		Transfer Conveyor	1,000 TPH	PE
BL-1		Barge Loader	1,000 TPH	PE
BC-14		Reclaim Conveyor Extension	1,000 TPH	PE
TH-8		Transfer House #8	1,000 TPH	FE
BC-19		Transfer Conveyor	1,000 TPH	PE
TH-9		Transfer House #9	1,000 TPH	FE
BC-20		Transfer Conveyor	1,000 TPH	FE

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
TH-10		Transfer House #10	1,000 TPH	PE
BC-21		Transfer Conveyor to 21	1,000 TPH	FE
BUN-1		Clamshell Unloading Crane	1,000 TPH	
RH-4		Gypsum Unloading Hopper	30 tons	WSPE
RP-1		Gypsum Rotary Plow	750 TPH	FE
BC-17		Dock Connecting Conveyor	750 TPH	PE
TH-7		Transfer House #7	750 TPH	FE
BC-18		Bypass Conveyor	750 TPH	PE
TH-6		Transfer House #6	750 TPH	FE
3S Limestone Mineral Processing				
VF-2		Limestone Reclaim Feeder 2	750 TPH	FE
VF-3		Limestone Reclaim Feeder 3	750 TPH	FE
BC-3		Limestone Tunnel Reclaim Conveyor	750 TPH	PE
FB-1		Emergency Limestone Reclaim Feeder/Breaker	750 TPH	None
TH-2		Limestone Transfer House 2	750 TPH	FE
BC-4		Limestone Silo A Feed Conveyor	750 TPH	PE
BC-5		Limestone Silo B Feed Conveyor	750 TPH	PE
BC-6		Limestone Silo C Feed Conveyor (future)	750 TPH	PE
LSB-1	6E	Limestone Silo A	900 tons	FF
LSB-2	7E	Limestone Silo B	900 tons	FF
LSB-3	8E	Limestone Silo C (future)	900 tons	FF
		Vibrating Bin Discharger (one per silo)	68.4 TPH	FE
LSWF-1 LSWF-2 LSWF-3		Limestone Weigh Feeder	68.4 TPH	FE
		Wet Ball Mill (one per silo)	68.4 TPH	FE
4S Dry Sorbent Material Handling				
		Truck Unloading Connection (2)	25 TPH	FE
DSSB-1	10E	Dry Sorbent Storage Silo #1	500 Tons	FE/FF
DSSB-1	11E	Dry Sorbent Storage Silo #2	500 Tons	FE/FF
		Aeration Distribution Bins	4.6 TPH	FE
		De-aeration Bins	4.6 TPH	FE
		Rotary Feeder	4.6 TPH	FE
5S Coal Blending System				

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
HTS-1		Transfer House #1	3,000 TPH	FE
HSC-1		Stacking Conveyor #1	3,000 TPH	PE
HTS-2A		Transfer House #2A	3,000 TPH	FE
HSC-2		Stacking Conveyor #2	3,000 TPH	PE
HTS-3		Transfer House #3	3,000 TPH	FE
HSC-3		Stacking Conveyor #3	3,000 TPH	PE
SH-1		Stacking Hopper SH-1 Transfer to SC-3 (receives coal from existing plant radial stacker R9)	3,000 TPH	FE
HSC-3 to High Sulfur Pile (CSA-2, existing)		Transfer from Stacking Conveyor HSC-3 to the High Sulfur Coal Pile located at existing North Yard Storage Area (CSA-2)	3,000 TPH	ST
HVF-1		Coal Reclaim Feeder 1	800 TPH	FE
HVF-2		Coal Reclaim Feeder 1	800 TPH	FE
HVF-3		Coal Reclaim Feeder 1	800 TPH	FE
HVF-4		Coal Reclaim Feeder 1	800 TPH	FE
HVF-1 through HVF-4 to HRC-1 (Transfer)_		Transfer from Vibrating Feeders HVF-1 through HVF-4 to Reclaim Conveyor HRC-1	1,600 TPH	FE
HRC-1		Coal Tunnel Reclaim Conveyor	1,600 TPH	PE
HTS-2B		Coal Transfer House #2B	1,600 TPH	FE
HRC-2		Reclaim Conveyor #2	1,600 TPH	PE
HTS-4		Coal Transfer House #4	1,600 TPH	FE
HRC-3		Reclaim Conveyor #3	1,600 TPH	PE
HTS-5		Coal Transfer House #5	1,600 TPH	FE
SB-1		Surge Bin #1	80 Tons	FE
HBF-1A		Belt Feeder 1A	800 TPH	PE
HBF-1B		Belt Feeder 1B	800 TPH	PE
HBF-1A/1B to BF-4E/4W (Transfer)		Transfer from Belt Feeders HBF-1A and HBF-1B to Existing Coal Conveyors 4E and 4W	1,600 TPH	FE
6S. 7S Emergency Quench Water System				
6S	15E	Diesel Fired Engine for Quench Pump #1	60 Bhp	None
7S	16E	Diesel Fired Engine for Quench Pump #2	60 Bhp	None
9S Magnesium Hydroxide Material Handling System				
MHM-1		Magnesium Hydroxide Mix Tank	1,000 Gallons	

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
MHM-2		Magnesium Hydroxide Mix Tank	1,000 Gallons	
11S Wastewater Treatment System Material Handling				
		Truck Unloading Connection (2)	25 TPH	FE
		Lime Storage Silo #1	100 TPH	FE//FF
		Lime Storage Silo #2	100 TPH	FE//FF
		Wastewater Treatment Cake Stockpile	3,600 Tons	BE
FB-2		Filter Cake Feeder/Breaker	600 TPH	PE
BC-22		Transfer Conveyor 22	600 TPH	PE
TH-12		Transfer House #12	600 TPH	PE
Fly Ash Handling System				
ME-1A	EP-1	Unit 1 Mechanical Exhauster		FF/Separator
ME-1B	EP-2	Unit 1 Mechanical Exhauster		FF/Separator
ME-1C	EP-3	Unit 1 Mechanical Exhauster		FF/Separator
ME-2A	EP-4	Unit 2 Mechanical Exhauster		FF/Separator
ME-2B	EP-5	Unit 2 Mechanical Exhauster		FF/Separator
ME-2C	EP-6	Unit 2 Mechanical Exhauster		FF/Separator
FAS-A	EP-7	Fly Ash Silo A	2,160 tons	FF Bin Vent
FAS-B	EP-8	Fly Ash Silo B	2,160 tons	FF Bin Vent
FAS-B	EP-8	Fly Ash Silo B	2,160 tons	FF Bin Vent
WFA-AA	F-1	Conditioned fly ash transfer from Silo A to Truck	360 TPH	MC
WFA-BA	F-2	Conditioned fly ash transfer from Silo B to Truck	360 TPH	MC
WFA-CA	F-3	Conditioned fly ash transfer from Silo C to Truck	360 TPH	MC
WFA-BA	F-4	Conditioned fly ash transfer from Silo A to Truck	360 TPH	MC
WFA-BB	F-5	Conditioned fly ash transfer from Silo B to Truck	360 TPH	MC
WFA-CB	F-6	Conditioned fly ash transfer from Silo C to Truck	360 TPH	MC
TC-A	EP-10	Dry Ash Transfer from Silo A to Truck	360 TPH	TC
TC-B	EP-11	Dry Ash Transfer from Silo A to Truck	360 TPH	TC
TC-C	EP-12	Dry Ash Transfer from Silo A to Truck	360 TPH	TC
Auxiliary Boiler				
Aux-1	Aux-ML-1	Auxiliary Boiler using Flue Gas Recirculation with Low NO _x Burners	663 MMBtu/hr	None
You can type whatever you want here :o)				

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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*
- 2.3.2. 45CSR14 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration;*
- 2.3.3. 45CSR19 – *Requirements for Pre-Construction Review, Determination of Emission Offsets for Proposed New or Modified Stationary Sources of Air Pollution and Emission Trading for Intrasource Pollutants.*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2608D. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2608, R13-2608A, R13-2608B, R13-2608C, R13-2608D, R13-2608E, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 10.3.]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

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; and
- 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.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

- 2.12.2. 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 Section 2.12.3 are met.
- 2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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.]

3.2. Monitoring Requirements *[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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded

in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **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§4. State Enforceable Only.]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class 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
Charleston, WV 25304-2345

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. Operating Fee

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. Limestone transferred across belt conveyor BC-1 to Transfer House #1 [TH-1] shall be limited to a maximum transfer rate of 750 tons per hour and 1,100,000 tons per year.
- 4.1.2. Limestone transferred across belt conveyor BC-3 to Transfer House #2 [TH-2] shall be limited to a maximum transfer rate of 750 tons per hour and 1,100,000 tons per year.
- 4.1.3. Gypsum transferred across belt conveyor BC-9 to Transfer House #4 [TH-4] shall be limited to a maximum transfer rate of 200 tons per hour and 1,700,000 tons per year.
- 4.1.4. Gypsum and wastewater treatment system cake transferred across belt conveyor BC-14 to Transfer House #7 [TH-7] shall be limited to a maximum transfer rate of 1,000 tons per hour and 1,912,000 tons per year.
- 4.1.5. Gypsum transferred across belt conveyor BC-17 to Transfer House #7 [TH-7] shall be limited to a maximum transfer rate of 750 tons per hour and 1,200,000 tons per year.
- 4.1.6. Gypsum transferred across belt conveyor BC-19 to Transfer House #9 [TH-9] shall be limited to a maximum transfer rate of 1,000 tons per hour and 1,700,000 tons per year.
- 4.1.7. Coal transferred across belt conveyor HSC-1 shall be limited to a maximum transfer rate of 3,000 tons per hour and 5,732,544 tons per year.
- 4.1.8. Dry Sorbent (Trona or Hydrated Lime) for SO₃ mitigation shall be delivered to the facility at a maximum annual rate of 81,000 tons per year.
- 4.1.9. Liquid magnesium hydroxide shall be delivered to the facility at a maximum annual rate of 6,600,000 gallons per year.
- 4.1.10. Hydrated lime for the FGD wastewater treatment system shall be delivered to the facility at a maximum annual rate of 3,200 tons per year.
- 4.1.11. Ferric Chloride for the FGD wastewater treatment system shall be delivered to the facility at a maximum annual rate of 110,000 gallons per year.
- 4.1.12. Acid (hydrochloric or sulfuric) for the FGD wastewater treatment system shall be delivered to the facility at a maximum annual rate of 170,000 gallons per year.
- 4.1.13. Polymer and organosulfide for the FGD wastewater treatment facility shall be delivered to the facility at a maximum annual rate of 13,500 gallons per year.
- 4.1.14. The diesel-fired engines [6S and 7S] used to power the emergency quench water system shall be limited to a total maximum combined annual operating schedule of 200 hours per year.
- 4.1.15. Compliance with all annual operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the quantified operating data at any given time during the previous twelve (12) consecutive calendar months.
- 4.1.16. The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water as often as is necessary in order to minimize the atmospheric

entrainment of fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spraybar shall be equipped with spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated.

The pump delivering the water shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haulroads and work areas where mobile equipment is used.

- 4.1.17. Additionally, at least three times per year the permittee shall apply a mixture of water and an environmentally acceptable dust control additive hereafter referred to as solution to all unpaved haul roads. The solution shall have a concentration of dust control additive sufficient to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads.
- 4.1.18. The permittee shall not cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter.
- 4.1.19. The installation and operation of the proposed Limestone Processing equipment [3S] shall be applicable to the limits and requirements set forth by 40CFR60 - Subpart OOO, "Standards of performance for non-metallic mineral processing plants."
 - a. The material transfers across the conveyors within the enclosed transfer stations and ball mill within the processing building will be limited to the opacity emissions from the building or building vents. The buildings will be limited to emissions of no visible opacity per 40CFR60.672(e)(1), and the vents from the buildings will be limited to an opacity of 7% and particulate emissions of 0.022 grains per dry standard cubic foot, per 40CFR60.672(e)(2).
 - b. The emissions from the baghouse on each of the limestone day bins will be limited to 7% opacity per 40CFR60.672(f).
 - c. All material transfer points outside of the buildings will be limited to a maximum 10% opacity per 40CFR60.672(b).
 - d. In order to comply with the emission and opacity limitations of this Subpart, the permittee shall employ dust suppression methods to minimize particulate emissions from the limestone processing equipment. In order to demonstrate compliance, in accordance to the requirements of the regulation, the applicant shall conduct performance testing and monitoring activities as set forth by this Subpart.
- 4.1.20. The maximum amount of fly ash handled by the fly ash handling system shall not exceed 800,000 tons per year on a dry (1% moisture) basis (i.e 980,000 tons per year at 20% moisture). Compliance with the throughput limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the fly ash transferred for the previous twelve (12) consecutive calendar months.
- 4.1.21. PM emissions from Mechanical Exhausters ME-1A, ME-1B and ME-1C shall not exceed 0.16 lb/hr and 0.69 tpy individually nor 0.32 lb/hr and 1.38 tons per year combined.
- 4.1.22. PM emissions from Mechanical Exhausters ME-2A, ME-2B and ME-2C shall not exceed 0.15 lb/hr and 0.65 tpy individually nor 0.30 lb/hr and 1.30 tons per year combined.

- 4.1.23. PM emissions from Bin Vent Filters BVF-A, BVF-B and BVF-C shall not exceed 0.75 lb/hr nor 3.25 tpy combined.
- 4.1.24. PM emissions from the transfer of conditioned fly ash from the silos to trucks (WFA-AA, WFA-AB, WFA-BA, WFA-BB, WFA-CA, and WFA-CB) shall not exceed 0.07 pounds per hour nor 0.09 tons per year combined.
- 4.1.25. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2.1. For the purpose of determining compliance with the material transfer limits set forth by Section 4.1.1. and 4.1.2. of this permit, the permittee shall monitor the hourly and annual limestone transfer rates across belt conveyor BC-1 to Transfer House #1 [TH-1] and across belt conveyor BC-3 to Transfer House #2 [TH-2].
- 4.2.2. For the purpose of determining compliance with the material transfer limits set forth by Section 4.1.3., 4.1.4., 4.1.5. and 4.1.6. of this permit, the permittee shall monitor the hourly and annual gypsum and wastewater treatment cake transfer rates across belt conveyors BC-9 to Transfer House #4 [TH-4], BC-14 to Transfer House #7 [TH-7], BC-17 to the Transfer House #7 Extension, and BC-19 to Transfer House #9 [TH-9].
- 4.2.3. For the purpose of determining compliance with the material transfer limits set forth by Section 4.1.7. of this permit, the permittee shall monitor the hourly and annual coal transfer rates across belt conveyor HSC-1 to Transfer Station #2A.
- 4.2.4. For the purpose of determining compliance with the limits associated with the delivery of raw materials for the SO₃ mitigation system, as set forth by Section 4.1.8. and 4.1.9. of this permit, the permittee shall monitor the on-site delivery of dry sorbent (including trona and hydrated lime) and liquid magnesium hydroxide.
- 4.2.5. For the purpose of determining compliance with the limits associated with the delivery of raw materials for the FGD wastewater treatment system, as set forth by Sections 4.1.10. through 4.1.13. of this permit, the permittee shall monitor the on-site delivery of hydrated lime, ferric chloride, acid (hydrochloric or sulfuric), polymer and organosulfide.
- 4.2.6. For the purpose of determining compliance with the operating limits set forth by Section 4.1.14. of this permit, the permittee shall monitor the operating schedule of the diesel-fired engine [6S and 7S] used to power the emergency quench water system.
- 4.2.7. For the purpose of determining compliance with the limits associated with disposal of dry fly ash, as set forth by Section 4.1.20 of this permit, the permittee shall monitor and record the amount of dry fly ash disposed of.
- 4.2.8. For the purpose of determining compliance with the operating limits set forth by Section 4.1.17. of this permit, the permittee shall monitor and record the date that chemical solution is applied to the haulroads along with the amount and concentration of the solution applied.

4.3. Testing Requirements

- 4.3.1. For the purpose of determining compliance with the performance testing requirements of 40 C.F.R. Part 60, Subpart OOO, as set forth by Section 4.1.19. of this permit, the permittee shall conduct compliance testing of the permitted facility within 180 days of the equipment start-up. These tests will be used to determine the particulate matter emissions generated from the open transfer points and processing operations. The testing methods to be employed are as follows:

<u>Pollutant</u>	<u>USEPA Test Method*</u>
Determination of the Opacity of Emissions	9
* Per 40CFR60, Appendix A	

The permittee shall submit to the Director of the DAQ a test protocol detailing the proposed test methods, date, and time testing is to take place, testing locations, and any other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times during which the tests will be conducted. The results of emissions testing shall be submitted to the DAQ within thirty (30) days of completion of testing.

- 4.3.2. Within 120 days of startup of the dry ash handling system, the permittee shall perform or have performed EPA approved tests (or other methods as approved by WVDAQ) to determine maximum PM emissions from any one of the Silo Bin Vent Filters (BVF-A, BVF-B or BVF-C).

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- The date, place as defined in this permit, and time of sampling or measurements;
- The date(s) analyses were performed;
- The company or entity that performed the analyses;
- The analytical techniques or methods used;
- The results of the analyses; and
- The operating conditions existing at the time of sampling or measurement.

- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- The equipment involved.
- Steps taken to minimize emissions during the event.

- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
 - f. Steps taken to correct the malfunction.
 - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.1. of this permit, the permittee shall maintain monthly records of the amount of limestone transferred across the monitored belt conveyors.
 - 4.4.5. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.2. of this permit, the permittee shall maintain monthly records of the amount of gypsum and wastewater treatment cake transferred across the monitored belt conveyors.
 - 4.4.6. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.3. of this permit, the permittee shall maintain monthly records of the amount of coal transferred across the monitored belt conveyor.
 - 4.4.7. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.4. of this permit, the permittee shall maintain monthly records of the amount of dry sorbent (trona and hydrated lime) and liquid magnesium hydroxide delivered to the facility via truck.
 - 4.4.8. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.5. of this permit, the permittee shall maintain monthly records of the amount of hydrated lime, ferric chloride, acid (hydrochloric or sulfuric), polymer and organosulfide delivered to the facility via truck.
 - 4.4.9. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 4.2.6. of this permit, the permittee shall maintain monthly records of the hours of operation of the diesel-fired engines [6S and 7S].
 - 4.4.10. For the purposes of determining compliance with Section 4.1.16., 4.1.17., and 4.1.18. of this permit, the permittee shall maintain records of the amount of dust control additive used at the facility and the dates the solution was applied.
 - 4.4.11. All records produced in accordance to the requirements set forth by Section 4.4. of this permit shall be maintained on-site for a period of no less than five (5) years and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" or a duly authorized representative, utilizing the attached Certification of Data Accuracy statement.
 - 4.4.12. For the purposes of determining compliance with the maximum throughput limit set forth in Condition 4.1.20 above, the facility shall maintain monthly (and calculated rolling yearly total) records of the amount of fly ash handled by the Units 1 and 2 fly ash system.

5.0. Source-Specific Requirements for the Auxiliary Boiler (Aux-1)

5.1. Limitations and Standards

5.1.1. The following conditions and requirements are specific to the Boiler Aux-1:

a. Emissions from the boiler shall not exceed the following limits:

Pollutant	lb/hr	tpy
SO ₂	39.78*	17.42
NO _x	99.45	43.56
CO	206.86	90.60
VOC	0.95	0.41
PM (filterable +condensable.)	15.63	6.85
PM ₁₀ (filterable +condensable)	10.90	4.77
PM _{2.5} (filterable +condensable)	7.34	3.22
CO ₂	105,606.4	46,255.6
N ₂ O	0.88	0.38
CH ₄	4.38	1.92
CO _{2e} (Total)	105,971.18	46,413.72
Formaldehyde	0.29	0.13
Benzene	0.01	0.01
Ethylbenzene	0.01	0.01
Toluene	0.03	0.02
Xylene	0.01	0.01
Naphthalene	0.01	0.01

* This limit makes 40 CFR §60.42b(k)(2) applicable and excludes the unit from limitations of 40 CFR §60.42b(k)(1). This limit satisfies the limitation in 45 CSR §10-3.1.b.

b. Boiler Aux-1 shall be fitted with Low NO_x burners and shall utilize Flue Gas Recirculation.

c. The permittee shall limit the annual capacity of the boiler to no more than 10 percent by limiting the annual average heat input of the boiler to 580,788 MMBtu per year. Compliance with this limit shall be satisfied through compliance with the annual fuel usage limit in item d of this condition.

[40 CFR §60.44b(c) and §63.7575; and 45 CSR §2-8.4.a.1.]

d. For the purpose of complying with the SO₂ limits in item a of this condition, the Boiler Aux-1 shall not consume more than 4,736 gallons of fuel oil (distillate oil) per hour nor more than 4,148,736 gallons per year. Such fuel oil can not contain more than 600 ppm or 0.06 % of

sulfur, which makes the sulfur dioxide potential for this unit at no greater than 0.06 lb/MMBtu.

[40 CFR §60.42.b(k)(2), §60.43b(h)(5), and §60.48b(j)(2); and 45 CSR §10-10.2]

- e. Opacity from boiler shall not exceed 20% based on a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, except during periods of startup, shutdown, or malfunction.
[40 CFR §§60.43b(f) & (g)]

- f. Visible emissions from the boiler shall not exceed 10 percent opacity based on a six minute block average, except during periods of startup, shutdown, or malfunction.
[45 CSR §2-3.1, and §2-9.1.]

- g. The permittee shall conduct an initial tune-up of the unit before January 31, 2016 (40 CFR §63.7510(e)) and subsequent tune-ups once every 5 years thereafter in accordance with the applicable requirements of 40 CFR 63, Subpart DDDDD. Subsequent tune-ups shall be conducted no later than 61 months from previous tune-up. If the unit is not operating on the required date for a tune-up, then the tune-up must be conducted within 30 calendar days of re-startup. These tune-ups shall consist of the following:

- i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment, but each burner must be inspect at least once every 72 months;
- ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, which includes the verifying or ensure the manufacturer's NO_x concentration specification are maintain;
- v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

[40 CFR §§63.7500(a)(1) & (c); §63.7505(a); §63.7510(e); §63.7515(d); §§63.7540(a)(10), (11) & (12); and Table 3 to Subpart DDDDD of Part 63—Work Practice Standards]

- 5.1.2. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.11.]

5.2. Monitoring Requirements

5.2.1. In order to determine compliance with Condition 5.1.1.d of this permit, the permittee shall monitor and record the amount of fuel oil combusted by Boiler Aux-1 on a monthly basis. Compliance with fuel usage limitations in item d will constitute compliance with the emission limitations of item a. of Condition 5.1.1. Such records shall be maintained in accordance with Condition 3.4.1. [40 CFR §60.49b(d)(2); and 45 CSR §2-8.3c., §§10-8.2.c.3., and 8.3.c.]

5.2.2. The permittee shall obtain records indicating the fuel oil received at the facility for Boiler Aux I meets the specification of distillate oil as defined in 40 CFR §60.41b and sulfur content stated in item d. of Condition 5.1.1. from the fuel supplier. Such records shall be maintained in accordance with Condition 3.4.1. [40 CFR §60.49b(r)(1) and 45 CSR §§10-8.2.c.3.]

5.2.3. The permittee shall conduct subsequent visible emission observations of the emission point for Boiler Aux-1 at least once every 12 months from the date of the most recent observation. Such observations be conducted using Method 9 of Appendix A-4 of Part 60. If visible emissions are observed, the permittee must follow the subsequent observation schedule in 40 CFR §60.48b(a)(1)(ii) through (iv) as applicable. Record of Method 9 observation shall contain the following:

- a. Dates and time intervals of all opacity observation periods;
- b. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
- c. Copies of all visible emission observer opacity field data sheets;

If the most recent observation is less than 10 percent opacity, the permittee may use Method 22 of Appendix A-7 of Part 60 to demonstrate compliance in lieu of using Method 9. The use of Method 22 observations must be in accordance with the length of observation and frequency as outline in 40 CFR §60.48b(a)(2)(i) through (ii) as applicable. Record of Method 9 observation shall contain the following

- a. Dates and time intervals of all visible emissions observation periods;
- b. Name and affiliation for each visible emission observer participating in the performance test;
- c. Copies of all visible emission observer opacity field data sheets; and
- d. Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

Records of observations shall be maintained in accordance with Condition 3.4.1. [40 CFR §§60.48b(a) and 60.49b(f); and 45 CSR §2-8.1(a)]

5.3. Testing Requirements

[Reserved]

5.4. Recordkeeping Requirements

5.4.1. **Record of Monitoring.** 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.

5.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

5.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

5.4.4. The permittee shall keep the following records in accordance with 40CFR§63.7555. This includes but not limited to the following information during the tune up as required in Condition 4.1.1.g. and 40 CFR §63.7540:

- a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. If concentrations of NO_x were taken during the tune-up of the unit, record of such measurements shall be included;

- b. A description of any corrective actions taken as a part of the tune-up; and.
[40 CFR §§63.7540(a)(10)(vi) and 63.7555]

5.5. Reporting Requirements

- 5.5.1. The permittee shall submit a “Notification of Compliance Status” for Boiler Aux-1 to the Director before the close of business on the sixtieth (60th) day after completion of the initial compliance demonstration as required in 40 CFR §63.7530(f). Such “Notification of Compliance Status” shall be in accordance with 40 CFR §63.9(h)(2(ii) and contain the information specified in 40 CFR §§63.7545(e)(1), and (8), which included a statement the initial tune-up for boiler was completed.
[40CFR§63. 7530(d), and §63. 7545(e)]
- 5.5.2. The permittee shall submit “5- year Compliance Reports” to the Director for Boiler Aux-1 with the first report being submitted by no later than January 31, 2016, and subsequent reports are due every 5 years from thereafter. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5) (i)through (iv) and (xiv) which are:
 - a. Permittee and facility name, and address;
 - b. Process unit information, emission limitations, and operating limitations;
 - c. Date of report and beginning and ending dates of the reporting period;
 - d. The total operating time during the reporting period of each affected unit;
 - e. Include the date of the most recent tune-up for the boiler; and
 - f. Include the date of the most recent burner inspection if it was not done biennial and was delayed until the next scheduled or unscheduled unit shutdown.
[40CFR §§63.7550(b), (b)(1), (c)(1), & (c)(5)(i) though (iv) and (xiv)]
- 5.5.3. The permittee shall report any observation made in accordance with Condition 5.2.3. that indicate visible emissions in excess of either items e and/or f of Condition 5.1.1. made during January 1 to June 30 in the facility’s Title V Semi Annual Compliance Report or July 1 to December 31 as part of the facility’s Title V Annual Compliance Report. Such report shall include the record of the recorded observation in accordance with Condition 5.2.3. and measures taken as result of the observation. This reporting requirement can be satisfied by including the results of the exceeded observation(s) with the facility’s quarterly opacity report and list the exceedance in the facility’s Title V annual compliance certification report.
[40 CFR §60.49b(h) and 45 CSR §2-8.3b.]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name & Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify



R13-2033D

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Union Carbide Corporation
South Charleston
039-00003



John A. Benedict
Director

Issued: April 3, 2013 • Effective: April 3, 2013

This permit will supercede and replace Permit R13-2033C.

Facility Location: South Charleston, Kanawha County, West Virginia

Mailing Address: PO Box 8361
South Charleston, WV 25303

Facility Description: Chemical Plant

NAICS Code: 325199

UTM Coordinates: 439.67 km Easting • 4,246.72 km Northing • Zone 17

Permit Type: Class I Administrative Update

Description of Change:
Replacement of stack testing requirement with enhanced monitoring and recordkeeping.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
B-26	E-26	Indeck Boiler Serial No. C-94122	1997	352 mmbtu/hr	N

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 (45 CSR § 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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	pph	Pounds per Hour
DAQ	Division of Air Quality	ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per million by volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supercedes and replaces previously issued Permit R13-2033B. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2033, R13-2033A, R13-2033B, R13-2033C and R13-2033D and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 13-10.3]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

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.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

- 2.12.2. 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 Section 2.12.3 are not met.
- 2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
[45CSR§13-10.1]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **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§4. *State-Enforceable only.*]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W. Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class 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 25304-2345

If to the USEPA:

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. **Operating Fee.**

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions from Boiler 26 shall not exceed the following:

Pollutant	Potential Emissions (pounds/hour)	Potential Emissions (tons/year)
Carbon Monoxide (CO)	22.5	98.4
Oxides of Nitrogen (NO _x)	70.4	308.35
PM/PM ₁₀ /PM _{2.5} *	2.22	9.7
Sulfur Dioxide (SO ₂)	20.1	88.1
Total VOCs	24.2	13.1
Vinyl Acetate	0.82	1.1
Propylene Oxide	20	0.6
Hexane	1.4	2.8
Total HAPs	22.3	4.6
CO _{2e}	43,370	186,301

* Includes condensables.

4.1.2 Boiler 26 shall only combust the following materials:

4.1.2.1 Natural gas.

4.1.2.2 Natural gas liquid condensate from boiler fuel feed piping.

4.1.2.3 Process vent gas from Bayer MaterialScience's propylene oxide filtering system containing water vapor, nitrogen and propylene oxide.

4.1.2.4 Process vent gas from Union Carbide's Gum Base Plant (previously referred to as the Polyvinyl Acetate Plant) containing acetone, isopropanol, vinyl acetate and nitrogen.

4.1.3 Total heat input from all process vent gas combustion shall not exceed 10% of the total annual heat input to the boiler based on a 12 month rolling average.

4.1.4 No later than 180 days following commencement of process vent gas and/or liquid natural gas condensate combustion in Boiler 26 (whichever comes first), Boiler 25 will be permanently shutdown. During this 180 day period, only natural gas, natural gas condensate and process vent gases will be burned in Boiler 25. Coal feed pulverizer electrical feeds will be disconnected prior to commencement of the 180 day period. Permanent shutdown of Boiler 25 will be completed by the end

of the 180 day commissioning period by disconnecting boiler cycle water piping and installing blind flanges. All PM_{2.5} and CO emissions from Boiler 25 shall be permanently retired and never used for netting purposes, emission reduction credits etc.

- 4.1.5 Boiler 26 shall not combust more than 352,000 cubic feet of natural gas per hour nor more than 3,086 mmcf per year based on a rolling 12 month total.
- 4.1.6 Boiler 26 shall not combust more than 100 gallons per hour of natural gas liquid condensate nor more than 24,700 gallons per year based on a rolling 12 month total.
- 4.1.7 Boiler 26 shall comply with all applicable emission standards of 40 CFR 60 Subpart Db including but not limited to the following:
 - 4.1.7.1 NO_x emissions from Boiler 26 shall not exceed 0.2 pounds per mmbtu.
[40 CFR §60.44b(1)(ii)]
- 4.1.8 Anytime Boiler 26 is combusting process vent gas from Bayer MaterialScience, the permittee shall comply with all applicable emission standards of 40 CFR 63 Subpart PPP including but not limited to the following:
 - 4.1.8.1 Emissions of propylene oxide shall be reduced by at least 98%.
[40 CFR §63.1425(b)(2)]
 - 4.1.8.2 Process vent gas shall be introduced into the boiler combustion chamber.
[40 CFR §63.1430(b)(2)(iii)]
- 4.1.9 Anytime Boiler 26 is combusting process vent gas from Union Carbides Gum Base plant, the permittee shall comply with all applicable emission standards of 40 CFR 63 Subpart FFFF including but not limited to the following:
 - 4.1.9.1 Emissions of vinyl acetate shall be reduced by at least 98%.
[40 CFR §63.2455(a)]
 - 4.1.9.2 Process vent gas shall be introduced into the flame zone of the boiler.
[40 CFR §63.2450(e), 63.982(c)(2), and 63.988(a)(3)]
- 4.1.10 Visible emissions from Boiler 26 shall not exceed 10% opacity based on a six minute block average.
[45CSR§2-3.1.]
- 4.1.11 The permittee shall comply with all applicable requirements of 45 CSR 40.
- 4.1.12 Boiler 26 shall operate at a minimum of 25% of its design heat input, utilizing natural gas, immediately prior to and during combustion of process vent gas from the Bayer MaterialScience plant.
- 4.1.13. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit

or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.11.]

4.2. Monitoring and Recordkeeping Requirements

4.2.1. **Record of Monitoring.** 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.

4.2.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.2.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

- 4.2.4. In order to determine compliance with annual combustion limit of section 4.1.5 of this permit, the permittee shall maintain monthly records of the amount of natural gas combusted by Boiler 26. Additionally, in order to determine compliance with the hourly combustion limit of section 4.1.5 of this permit, the permittee shall maintain monthly records of the hours of operation of Boiler 26. Compliance with the hourly limit shall be determined by dividing the amount of natural gas consumed during the month by the monthly hours of operation.
- 4.2.5 In order to determine compliance with annual combustion limit of section 4.1.6 of this permit, the permittee shall maintain monthly records of the amount of natural gas condensate combusted by Boiler 26. Additionally, in order to determine compliance with the hourly combustion limit of section 4.1.6 of this permit, the permittee shall maintain monthly records of the hours of operation of Boiler 26. Compliance with the hourly limit shall be determined by dividing the amount of natural gas condensate consumed during the month by the monthly hours of operation.
- 4.2.6 In order to determine compliance with annual combustion limit of section 4.1.3 of this permit, the permittee shall maintain monthly records of the amount of process vent gas from Bayer MaterialScience combusted by Boiler 26.
- 4.2.7 In order to determine compliance with annual combustion limit of section 4.1.3 of this permit, the permittee shall maintain monthly records of the amount of process vent gas from Union Carbides Gum Base Plant combusted by Boiler 26.
- 4.2.8 The permittee shall comply with all applicable monitoring and recordkeeping requirements of 40 CFR 60 Subpart Db including but not limited to the following:
- 4.2.8.1 The permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system. As provided by 40 CFR §60.48b(b)(2), installation of a CEMS meeting the requirements of 40 CFR 75, Subpart H, meets the requirements of Subpart Db, except as otherwise provided by 40 CFR §60.48b.
[40 CFR §60.48b(b)]
- 4.2.9 The permittee shall comply with all applicable monitoring and recordkeeping requirements of 40 CFR 63 Subpart PPP.
- 4.2.10 The permittee shall comply with all applicable monitoring and recordkeeping requirements of 40 CFR 63 Subpart FFFF.
- 4.2.11 The permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for the Boiler 26 stack exhaust to the air.

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.

Visible emission checks shall be conducted at least once per calendar month when natural gas condensate is burned. These checks shall be performed on the Boiler 26 stack exhaust 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 normal facility operation and appropriate weather conditions.

If visible emissions are present 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. Method 9 checks shall be performed on the source for at least six (6) minutes. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

- 4.2.12 In order to determine compliance with the propylene oxide emission limits in section 4.1.1 of this permit, the permittee shall monitor and record actual propylene oxide loading (on at least an hourly basis) to the boiler during combustion of process vent gas from the Bayer MaterialScience facility. The permittee shall use this data to calculate actual hourly and annual propylene oxide emissions. When calculating emissions a 98% control efficiency may be used provided all applicable conditions of 40 CFR 63 Subpart PPP have been met. Compliance with the annual limit of 4.1.1 shall be based on a rolling 12 month total.

4.3. Testing Requirements

- 4.3.1 In order to determine compliance with the vinyl acetate and hexane emission limits in section 4.1.1 of this permit, within 180 days of commencement of process vent gas and/or liquid natural gas condensate combustion in Boiler 26 (whichever comes first) the permittee shall complete the following performance testing:
- 4.3.1.1 The permittee shall perform or have performed EPA approved stack tests to determine emissions of vinyl acetate from Boiler 26. Said testing shall be performed while the boiler is operating as close to maximum steam capacity as practical and receiving process vent gas from Union Carbides Gum Base plant at the highest practical loading.
- 4.3.1.2 The permittee shall perform or have performed EPA approved stack tests to determine emissions of hexane from Boiler 26. Said testing shall be performed while the boiler is combusting natural gas condensate as close to practical a feed rate of approximately 100 gallons per hour.
[45CSR§13-5.11.]
- 4.3.2 The permittee shall comply with all applicable testing requirements of 40 CFR 63 Subpart PPP.
- 4.3.3 The permittee shall comply with all applicable testing requirements of 40 CFR 63 Subpart FFFF.
- 4.3.4 The permittee shall comply with all applicable testing requirements of 40 CFR 60 Subpart Db
- 4.3.5 After the testing required by 4.3.1 of this permit is completed, ongoing compliance shall be demonstrated by repeating the testing required by 4.3.1 according to the following schedule:

Test	Test Results	Testing Frequency
Initial	< 50% of limits	Upon Directors Request
Initial	Between 50% and 90% limits	Once/5 years
Initial	≥90% of limits	Once/3 years
Once/3 years	After two successive tests indicate emission rates ≤50% of limits	Upon Directors Request
Once/3 years	After two successive tests indicate emission rates <90% of limits	Once/5 years
Once/3 years	≥90% of limits	Once/3 years
Once/5 years	After two successive tests indicate emission rates <50% of limits	Upon Directors Request
Once/5 years	After two successive tests indicate emission rates < 90% of limits	Once/5 years
Once/5 years	≥90% of limits	Once/3 years

4.4. Reporting Requirements

- 4.4.1. Any violations of the allowable visible emission requirement for any emission source discovered during testing must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten 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.
- 4.4.2. With regard to testing required by section 4.3 of this permit, results shall be submitted to the Director no more than 60 days after the date the testing takes place.
- 4.4.3. The permittee shall comply with all applicable reporting requirements of 45CSR2, 45CSR10, 45CSR13, 40 CFR 63 Subpart PPP, 40 CFR 63 Subpart FFFF and 40 CFR 60 Subpart Db.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative _____

Date _____

Name and Title

(please print or type)

Name _____

Title _____

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.



Division of Air Quality
7012 MacCorkle Avenue, South East
Charleston, WV 25304-2943
Telephone Number: (304) 926-3727
Fax Number: (304) 926-3739

West Virginia Department of Environmental Protection

Bob Wise
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

PERMIT TO MODIFY A NATURAL GAS FIRED BOILER

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit will supersede and replace Permit R13-2141B.

Name of Permittee: Union Carbide Corporation

Name of Facility: South Charleston Facility

Permit No.: R13-2141C

Plant ID No.: 039-00003

Effective Date of Permit: April 19, 2004

Permit Writer: Chris Sergent, P.E.

Facility Mailing Address: P.O. Box 8004
South Charleston, WV 25303

County: Kanawha County

Nearest City or Town: South Charleston, WV

UTM Coordinates: Easting: 440.6 km Northing: 4,246.7 km Zone: 17

Directions to
Exact Location: Traveling West from Charleston on I-64, take the Montrose Drive Exit (Exit #56) and turn right onto Montrose Drive. Proceed straight through the traffic light at MacCorkle Avenue.

Type of Facility
or Modification: The applicant has proposed to vent a new process gas stream, propylene oxide, to Boiler No. 27 for the purpose of thermal destruction.

THE SOURCE IS SUBJECT TO 45CSR30. THE PERMITTEE HAS THE DUTY TO UPDATE THE FACILITY'S TITLE V (45CSR30) PERMIT APPLICATION TO REFLECT THE CHANGES PERMITTED HEREIN.

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

1. Boiler No. 27 shall utilize natural gas as its fuel source, and shall be operated in a manner not to exceed the maximum design heat input of 353 million Btu per hour.
2. Boiler No. 27 shall not consume more than 353,000 cubic feet of natural gas per hour, or approximately 3,092 million cubic feet per year. Annual fuel consumption shall be based on a 12-month rolling yearly total. A rolling yearly total shall mean the total natural gas usage at any given time for the previous twelve (12) consecutive calendar months.
3. The process vent gases from the following plants may be drafted to Boiler No. 27 for the purpose of VOC reduction at a minimum control efficiency of 99 percent:
 - a. Union Carbide Corporation - Pentanedione
 - b. Union Carbide Corporation - Diethyl Ketone
 - c. Union Carbide Corporation - Polyvinyl Acetate
 - d. Bayer Polymers, LLC - Propylene Oxide Filtering
4. The process vent gases drafted to Boiler No. 27 from those plants identified in Specific Requirements A.3. of this permit are deemed to have negligible heating values.
5. The emission of NO_x to the atmosphere from the boiler (No. 27 Boiler) shall be limited to 0.2 lbs NO_x per million Btu heat input, "high heat release," as set forth in 40 CFR 60 Subpart Db, Section 60.44(b). Compliance with the hourly emission limits shall be based on a 30-day rolling average in accordance to 40CFR60.46(b).
6. The maximum allowable emissions to the atmosphere from the proposed operation of the natural gas fired boiler (No. 27 Boiler, ID: 27e) shall be limited to those pollutants and associated rates shown in Table A.6. of this permit.

Table A.6.

Pollutant	Emission Point ID - 27E	
	Hourly Limits (lbs/hr)	Annual Limits (tons/yr)
CO	33.00	95.00
NO _x	70.60	309.00
SO ₂	0.26	1.15
PM ₁₀	5.00	14.50
VOC	30.00	29.50
Propylene Oxide	20.00	0.58
Hexane	1.25	2.75
Methyl Ethyl Ketone*	0.05	0.15
Vinyl Acetate	0.11	0.46

* - Emission limit applies during the destruction of process vent gas from the DEK process.

B. OTHER REQUIREMENTS

1. The pertinent sections of 45CSR2 applicable to this facility include, but are not limited to, the following:

§45-2-3.1.

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

§45-2-3.2.

Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of subsection 3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

§45-2-4.1.0.

No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

- b. For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units;

§45-2-4.4.

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.

§45-2-8.1. Testing.

- a. The owner or operator of a fuel burning unit(s) shall demonstrate compliance with section 3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Director, and section 4 by periodic particulate matter stack testing, conducted in accordance with the appropriate test method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The owner or operator shall conduct such testing at a frequency to be established by the Director.
- b. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of section 4. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports 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.

1. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.
- c. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in subsection 4.1.

§45-2-8.2. Monitoring.

- a. The owner or operator of a fuel burning unit(s) shall monitor compliance with section 3 as set forth in an approved monitoring plan for each emission unit. Such monitoring plan(s) shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as approved by the Director.

§45-2-8.3. Recordkeeping and Reporting.

- a. The owner or operator of a fuel burning unit(s) shall maintain on-site all records of monitored data established in the monitoring plan pursuant to subdivision 8.2.a. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years.
- b. The owner or operator shall submit a periodic exception report to the Director, in a manner and at a frequency to be established by the Director. Such 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.
- c. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
- d. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form.

§45-2-9.2.

At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.

2. The permitted facility shall comply with all applicable requirements of 45CSR10, with the exception of any more stringent limitations set forth in Specific Requirements A. of this permit. The principle provisions of 45CSR10, applicable to the permitted facility, are:

§45-10-3.2.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

§45-10-3.2.c.

For Type 'b' and Type 'c' fuel burning units, the product of 1.6 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour, provided however, that no more than 5,500 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.

§45-10-5.1.

No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U.S. EPA.

§45-10-5.4.

Compliance with the allowable hydrogen sulfide concentration limitations for combustion sources set forth in this rule shall be based on a block three (3) hour averaging time.

§45-10-8.1.a.

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 sections 3, 4, or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40CFR Part 60, Appendix A, Method 6, Method 15, or equivalent EPA testing method approved by the Director.

§45-10.8.3.a.

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 3, 4, or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five (5) years.

3. The permitted facility shall comply with all applicable requirements of 45CSR27. The principle provisions of 45CSR27 applicable to this facility include, but are not limited to, the following:

§45-27-3.4

All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.

§45-27-5.1

Owners and operators of chemical processing units or facilities subject to the requirements of this rule shall prevent and control working and filling losses of toxic air pollutants from tanks by routing such tank emissions to BAT control devices. The Director may approve the use of floating roof storage tanks as BAT, provided that such tanks are designed and operated in a manner which minimizes toxic air pollutant emissions taking into consideration the toxic air pollutant emission rate, tank size, and control efficiency associated with such tanks. On a case-by-case basis, the Director may exempt very small process or storage tanks or tanks storing material mixtures containing low mass fractions of toxic air pollutants from the BAT requirements taking into consideration the actual level of emissions control and/or the toxic air pollutant emission rate from the tank.

§45-27-10.3

Written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts.

§45-27-10.4

The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

10.4.a. For ethylene oxide and vinyl chloride, one (1) pound.

10.4.b. For acrylonitrile, ten (10) pounds.

10.4.c. For all other toxic air pollutants, fifty (50) pounds.

The owner or operator shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds or any toxic air pollutant within seven (7) days of the occurrence. The owner/operator shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharged to the air.

4. The permitted facility shall comply with all applicable requirements of 40CFR63, Subpart PPP - Polyethers Polyol Production, with the exception of any more stringent limitations set forth in Section A -Specific Requirements of this permit. The pertinent requirements of this regulation applicable to this facility include, but are not limited to, the following:

40CFR63.1425(b)(2)(ii)

For an existing affected source, the owner or operator shall reduce the total epoxide emissions from the group of applicable process vents by an aggregated 98 percent.

40CFR63.1430(b)(2)(iii)

As a means of demonstrating compliance with the process vent control requirements when using a boiler for controls, the permittee shall maintain a description of the location at which the process vent stream is introduced into the boiler or process heater.

5. The permittee shall maintain accurate records of the amount of natural gas consumption on a monthly and yearly basis using the sample record keeping format, or equivalent, appended hereto as ATTACHMENT A. These records shall be maintained on site for a period of no less than five (5) years, and upon request by the Director or his or her duly authorized representative, certified copies of these records, signed by the Responsible Official, shall be provided to the Division of Air Quality (DAQ).

6. The permittee shall comply with all applicable provisions contained in 40 CFR 60, specifically Subpart Db. As provided by 40 CFR 60.48b(2) installation of a nitrogen oxides continuous emission system meeting the requirements of 40 CFR 75, Subpart H, meets the requirements of Subpart Db, except as otherwise provided by 40 CFR 60.48b(2). All reports, requests, or notifications under Subpart Db shall be submitted, in addition to the US EPA, to the Director of the Division of Air Quality and his/her duly authorized official at: 7012 MacCorkle Avenue, SE Charleston, WV 25304.

7. All notifications and reports required pursuant to 40CFR60 shall be forwarded to the following:

Director
WVDEP
Division of Air Quality
7012 MacCorkle Avenue, S. E.
Charleston, WV 25304-2943

and

Director, Air, Toxics and Radiation
US Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

8. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance.

§45-13-10.2

The Secretary may suspend or revoke a permit if, after six (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit.

§45-13-10.3

The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W.Va Code § 22-5-5 to show cause why the permit should not be suspended, modified or revoked.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2141, R13-2141A, R13-2141B, and R13-2141C, and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
4. At such reasonable time(s) as the Secretary may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Secretary may specify or approve and shall be filed in a manner acceptable to the Secretary. The Secretary, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Secretary exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.
5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Secretary, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Secretary, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY: _____


JOHN A. BENEDICT, DIRECTOR
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

DATE SIGNED: _____ April 19, 2004 _____



Division of Air Quality
7012 MacCorkle Avenue, South East
Charleston, WV 25304-2943
Telephone Number: (304) 926-3727
Fax Number: (304) 926-3739

West Virginia Department of Environmental Protection

Bob Wise
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

PERMIT TO MODIFY A NATURAL GAS FIRED BOILER

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit will supersede and replace Permit R13-2141B.

Name of Permittee: Union Carbide Corporation

Name of Facility: South Charleston Facility

Permit No.: R13-2141C

Plant ID No.: 039-00003

Effective Date of Permit: April 19, 2004

Permit Writer: Chris Sergent, P.E.

Facility Mailing Address: P.O. Box 8004
South Charleston, WV 25303

County: Kanawha County

Nearest City or Town: South Charleston, WV

UTM Coordinates: Easting: 440.6 km Northing: 4,246.7 km Zone: 17

Directions to
Exact Location: Traveling West from Charleston on I-64, take the Montrose Drive Exit (Exit #56) and turn right onto Montrose Drive. Proceed straight through the traffic light at MacCorkle Avenue.

Type of Facility
or Modification: The applicant has proposed to vent a new process gas stream, propylene oxide, to Boiler No. 27 for the purpose of thermal destruction.

THE SOURCE IS SUBJECT TO 45CSR30. THE PERMITTEE HAS THE DUTY TO UPDATE THE FACILITY'S TITLE V (45CSR30) PERMIT APPLICATION TO REFLECT THE CHANGES PERMITTED HEREIN.

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

1. Boiler No. 27 shall utilize natural gas as its fuel source, and shall be operated in a manner not to exceed the maximum design heat input of 353 million Btu per hour.
2. Boiler No. 27 shall not consume more than 353,000 cubic feet of natural gas per hour, or approximately 3,092 million cubic feet per year. Annual fuel consumption shall be based on a 12-month rolling yearly total. A rolling yearly total shall mean the total natural gas usage at any given time for the previous twelve (12) consecutive calendar months.
3. The process vent gases from the following plants may be drafted to Boiler No. 27 for the purpose of VOC reduction at a minimum control efficiency of 99 percent:
 - a. Union Carbide Corporation - Pentanedione
 - b. Union Carbide Corporation - Diethyl Ketone
 - c. Union Carbide Corporation - Polyvinyl Acetate
 - d. Bayer Polymers, LLC - Propylene Oxide Filtering
4. The process vent gases drafted to Boiler No. 27 from those plants identified in Specific Requirements A.3. of this permit are deemed to have negligible heating values.
5. The emission of NO_x to the atmosphere from the boiler (No. 27 Boiler) shall be limited to 0.2 lbs NO_x per million Btu heat input, "high heat release," as set forth in 40 CFR 60 Subpart Db, Section 60.44(b). Compliance with the hourly emission limits shall be based on a 30-day rolling average in accordance to 40CFR60.46(b).
6. The maximum allowable emissions to the atmosphere from the proposed operation of the natural gas fired boiler (No. 27 Boiler, ID: 27e) shall be limited to those pollutants and associated rates shown in Table A.6. of this permit.

Table A.6.

Pollutant	Emission Point ID - 27E	
	Hourly Limits (lbs/hr)	Annual Limits (tons/yr)
CO	33.00	95.00
NO _x	70.60	309.00
SO ₂	0.26	1.15
PM ₁₀	5.00	14.50
VOC	30.00	29.50
Propylene Oxide	20.00	0.58
Hexane	1.25	2.75
Methyl Ethyl Ketone*	0.05	0.15
Vinyl Acetate	0.11	0.46

* - Emission limit applies during the destruction of process vent gas from the DEK process.

B. OTHER REQUIREMENTS

1. The pertinent sections of 45CSR2 applicable to this facility include, but are not limited to, the following:

§45-2-3.1.

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

§45-2-3.2.

Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of subsection 3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

§45-2-4.1.0.

No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

- b. For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units;

§45-2-4.4.

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.

§45-2-8.1. Testing.

- a. The owner or operator of a fuel burning unit(s) shall demonstrate compliance with section 3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Director, and section 4 by periodic particulate matter stack testing, conducted in accordance with the appropriate test method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The owner or operator shall conduct such testing at a frequency to be established by the Director.
- b. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of section 4. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports 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.

1. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.
- c. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in subsection 4.1.

§45-2-8.2. Monitoring.

- a. The owner or operator of a fuel burning unit(s) shall monitor compliance with section 3 as set forth in an approved monitoring plan for each emission unit. Such monitoring plan(s) shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as approved by the Director.

§45-2-8.3. Recordkeeping and Reporting.

- a. The owner or operator of a fuel burning unit(s) shall maintain on-site all records of monitored data established in the monitoring plan pursuant to subdivision 8.2.a. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years.
- b. The owner or operator shall submit a periodic exception report to the Director, in a manner and at a frequency to be established by the Director. Such 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.
- c. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
- d. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form.

§45-2-9.2.

At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.

2. The permitted facility shall comply with all applicable requirements of 45CSR10, with the exception of any more stringent limitations set forth in Specific Requirements A. of this permit. The principle provisions of 45CSR10, applicable to the permitted facility, are:

§45-10-3.2.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

§45-10-3.2.c.

For Type 'b' and Type 'c' fuel burning units, the product of 1.6 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour, provided however, that no more than 5,500 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.

§45-10-5.1.

No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U.S. EPA.

§45-10-5.4.

Compliance with the allowable hydrogen sulfide concentration limitations for combustion sources set forth in this rule shall be based on a block three (3) hour averaging time.

§45-10-8.1.a.

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 sections 3, 4, or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40CFR Part 60, Appendix A, Method 6, Method 15, or equivalent EPA testing method approved by the Director.

§45-10.8.3.a.

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 3, 4, or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five (5) years.

3. The permitted facility shall comply with all applicable requirements of 45CSR27. The principle provisions of 45CSR27 applicable to this facility include, but are not limited to, the following:

§45-27-3.4

All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.

§45-27-5.1

Owners and operators of chemical processing units or facilities subject to the requirements of this rule shall prevent and control working and filling losses of toxic air pollutants from tanks by routing such tank emissions to BAT control devices. The Director may approve the use of floating roof storage tanks as BAT, provided that such tanks are designed and operated in a manner which minimizes toxic air pollutant emissions taking into consideration the toxic air pollutant emission rate, tank size, and control efficiency associated with such tanks. On a case-by-case basis, the Director may exempt very small process or storage tanks or tanks storing material mixtures containing low mass fractions of toxic air pollutants from the BAT requirements taking into consideration the actual level of emissions control and/or the toxic air pollutant emission rate from the tank.

§45-27-10.3

Written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts.

§45-27-10.4

The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

10.4.a. For ethylene oxide and vinyl chloride, one (1) pound.

10.4.b. For acrylonitrile, ten (10) pounds.

10.4.c. For all other toxic air pollutants, fifty (50) pounds.

The owner or operator shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds or any toxic air pollutant within seven (7) days of the occurrence. The owner/operator shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharged to the air.

4. The permitted facility shall comply with all applicable requirements of 40CFR63, Subpart PPP - Polyethers Polyol Production, with the exception of any more stringent limitations set forth in Section A -Specific Requirements of this permit. The pertinent requirements of this regulation applicable to this facility include, but are not limited to, the following:

40CFR63.1425(b)(2)(ii)

For an existing affected source, the owner or operator shall reduce the total epoxide emissions from the group of applicable process vents by an aggregated 98 percent.

40CFR63.1430(b)(2)(iii)

As a means of demonstrating compliance with the process vent control requirements when using a boiler for controls, the permittee shall maintain a description of the location at which the process vent stream is introduced into the boiler or process heater.

5. The permittee shall maintain accurate records of the amount of natural gas consumption on a monthly and yearly basis using the sample record keeping format, or equivalent, appended hereto as ATTACHMENT A. These records shall be maintained on site for a period of no less than five (5) years, and upon request by the Director or his or her duly authorized representative, certified copies of these records, signed by the Responsible Official, shall be provided to the Division of Air Quality (DAQ).

6. The permittee shall comply with all applicable provisions contained in 40 CFR 60, specifically Subpart Db. As provided by 40 CFR 60.48b(2) installation of a nitrogen oxides continuous emission system meeting the requirements of 40 CFR 75, Subpart H, meets the requirements of Subpart Db, except as otherwise provided by 40 CFR 60.48b(2). All reports, requests, or notifications under Subpart Db shall be submitted, in addition to the US EPA, to the Director of the Division of Air Quality and his/her duly authorized official at: 7012 MacCorkle Avenue, SE Charleston, WV 25304.
7. All notifications and reports required pursuant to 40CFR60 shall be forwarded to the following:

Director
WVDEP
Division of Air Quality
7012 MacCorkle Avenue, S. E.
Charleston, WV 25304-2943

and

Director, Air, Toxics and Radiation
US Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

8. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance.

§45-13-10.2

The Secretary may suspend or revoke a permit if, after six (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit.

§45-13-10.3

The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W.Va Code § 22-5-5 to show cause why the permit should not be suspended, modified or revoked.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2141, R13-2141A, R13-2141B, and R13-2141C, and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
4. At such reasonable time(s) as the Secretary may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Secretary may specify or approve and shall be filed in a manner acceptable to the Secretary. The Secretary, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Secretary exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.
5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Secretary, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Secretary, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY: _____


JOHN A. BENEDICT, DIRECTOR
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

DATE SIGNED: _____ April 19, 2004 _____

West Virginia Department of Environmental Protection

*Austin Caperton
Cabinet Secretary*

Permit to Modify



R14-0027F

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Eagle Natrium LLC
Natrium Plant/New Martinsville
051-00002**

A handwritten signature in blue ink, appearing to read "William F. Durham", is written over a horizontal line.

*William F. Durham
Director, Division of Air Quality*

Issued: March 19, 2018

This permit will supercede and replace Permit R14-0027E.

Facility Location: 15696 Energy Road
Proctor, WV 26055
Mailing Address: P.O. Box 191
New Martinsville, WV 26155-0191
Facility Description: Chemical Manufacturing
NAICS Codes: 325181, 325110
UTM Coordinates: 512.70 km Easting • 4,399.60 km Northing • Zone 17
Permit Type: Modification
Description of Change: This action is for the conversion and restarting of Boiler No. 4 on natural gas.

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.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
R015	S076	No. 4 Boiler with Low NO _x Burners (fired by 100% hydrogen, natural gas, or mixture of these fuels – 4.1.1(c))	1952/2018	540 MMBtu/hr	None
R072	S482	No.5 Boiler (fired by natural-gas)	1966/2016	1,125 MMBtu/hr	None
R097	S076	No. 6 Boiler with Low-NO _x Burner (fired by 100% hydrogen, natural gas, or mixture of these fuels – 4.1.4(c))	1993/2015	182 MMBTU	None
R200	S200	Babcock & Wilcox Model RB-747 Rental Boiler (fired by natural gas)	2017	99.9 MMBTU	None

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	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*
- 2.3.2. 45CSR14 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R14-0027E. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-1637, R13-1637A, R14-0027, R14-0027A, R14-0027B, R14-0027C, R14-0027D, R14-0027E, R14-0027F, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 10.3.]
- 2.5.2. 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;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

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; and
- 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.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

- 2.12.2. 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 Section 2.12.3 are met.
- 2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
[45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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, 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.
[40CFR§61.145(b) and 45CSR§34]
- 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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **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.]

3.2. Monitoring Requirements

[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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- 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 sixty (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; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in

a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **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§4. State Enforceable Only.]

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.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** 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, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

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

DAQ Compliance and Enforcement¹:
DEPAirQualityReports@wv.gov

¹For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. Operating Fee

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to No. 4 Boiler (ID #R015):

- a. The boiler shall not exceed the following emission limitations:
 - i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0646 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
 - ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.16 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- b. The boiler shall only be fired with hydrogen gas, natural gas, or any combination of these two fuels. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b., 45CSR§10-3.1.e.; and the requirement of 45 CSR §2-8.1.a., 45 CSR §2-8.2., and Section 8 of 45 CSR §10. [45 CSR §2-8.4.b., 45 CSR §2A-3.1.a., 45 CSR §10-10.3., and 45CSR §10A-3.1b.] [45 CSR §2-8.4.b., 45 CSR §2A-3.1.a., 45 CSR §10-10.3., and 45CSR §10A-3.1b.]
- c. The 24- hour average heat input of the boiler shall be no greater than 540 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit to 4,730,400 MMBtu on 12 month rolling total basis.

4.1.2. The following conditions and requirements are specific to No. 5 Boiler (ID #R072):

- a. The boiler shall not exceed the following emission limitations:
 - i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0488 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
 - ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.16 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- b. The boiler shall only be fired with “natural gas” as defined in 45 CSR§10A-2.7. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b., 45CSR§10-3.1.e.; and the requirement of 45 CSR §2-8.1.a., 45 CSR §2-8.2., and Section 8 of 45 CSR §10. [45 CSR §2-8.4.b., 45 CSR §2A-3.1.a., 45 CSR §10-10.3., and 45CSR §10A-3.1b.]
- c. The 24- hour average heat input of the boiler shall be no greater than 999 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit to 8,751,240 MMBtu on 12 month rolling total basis.

- 4.1.3. The following conditions and requirements are specific to No. 6 Boiler (ID #R097):
- a. The boiler shall not exceed the following emission limitations:
 - i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0337 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
 - ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.04 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the valid hourly NO_x emission data for the preceding 30 steam generating unit operating days
[40 CFR §60.44b(a), (h), and (i)]
 - b. The boiler shall only be fired with hydrogen gas, natural gas or any combination of these two fuels. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b., 45CSR§10-3.1.e.; and the requirement of 45 CSR §2-8.1.a., 45 CSR §2-8.2., and Section 8 of 45 CSR §10.
[45 CSR §2-8.4.b., 45 CSR §2A-3.1.a., 45 CSR §10-10.3., and 45CSR §10A-3.1b.]
 - c. The 24-hour average heat input of boiler shall be no greater than 182 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit by 1,594,320 MMBtu on 12 month rolling total basis.
- 4.1.4. The hydrogen gas to be fired in Nos. 4 and 6 Boilers shall not have a concentration of greater than 20 micrograms of mercury per cubic meters of gas on a 3-hour average basis. The hydrogen gas meeting this standard is classified as an “other gas 1 fuel” under Subpart DDDDD of Part 63.
[40 CFR §63.7575 and §63. 7540(c)(1)]
- 4.1.5. Visible emissions from each of these emission points S076 (Stack for Nos. 4 & 6 Boilers) and S482 (No. 5 Boiler) shall not be greater than ten (10) percent opacity based on a six-minute block average.
[45 CSR §2-3.1]
- 4.1.6. Nos. 4, 5, and 6 Boilers shall be equipped, maintained, operated with an oxygen trim system that maintains an optimum air to fuel ratio for each unit. Such system shall be installed up on initial start-up of the unit from the conversion to natural gas retrofit.
[40 CFR §63.7575]
- 4.1.7. The initial tune-up and subsequent tune-ups for the boilers shall be conducted in accordance with the following timing and tune-up requirements:
- a. The initial tune-up for the No. 4 Boiler shall be completed by no later than 30 calendar days after the initial start-up from the natural gas conversion of the unit.
[40 CFR §63.7510(j) and §63.7495(h)]
 - b. Subsequent tune-ups for all of the boilers shall be completed no later than 61 months after previous tune-up.
[40 CFR §63.7515(d) § 63.7540(a)(12)]
 - c. Each tune-up shall consist of the following:
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel

is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

- ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, which includes the manufacturer's NO_x concentration specification taken inconsideration; and
- v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[40 CFR §63.7500(a)(1), §63.7505(a), §63.7515(d), §§63.7540(a)(10) & (12), and Table 3 to Subpart DDDDD of Part 63—Work Practice Standards]

4.1.8. The Rental Boiler, identified as R200, shall meet the following requirements:

- a. The Rental Boiler shall be a Babcock & Wilcox Model RB-747, shall not exceed an aggregate MDHI of 99.9 MMBtu/hr, shall only be fired by pipeline-quality natural gas (PNG), shall utilize Low-NO_x Burner technology, and shall not exceed those emission limits given in the following table:

Table 4.1.10(a): Rental Boiler Emission Limits

Pollutant	PPH	TPY
CO	7.49	32.82
NO _x	3.65	15.97
PM _{2.5} /PM ₁₀ /PM ⁽¹⁾	0.50	2.19
VOCs	0.40	1.75

⁽¹⁾ Includes condensable particulate matter.

- b. As the annual emissions are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for the Rental Boiler;
- c. Visible emissions from boiler R200 shall not be greater than ten (10) percent opacity based on a six-minute block average. Compliance with this limitation is satisfied when the unit is only operating on natural gas.
[45 CSR §2-3.1. & 8.4b., 45 CSR §2A-3.1.a.]
- d. Within in 180 days after restarting No. 4 Boiler, the permittee shall shutdown and remove Boiler Identified as R200 from the facility. Restart-up of No. 4 Boiler is defined as the first instance that steam for No. 4 Boiler is allowed to be introduced into the common header.
[45 CSR 14-2-46.h.]

- 4.1.9. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2.1. For No. 4 Boiler, the permittee shall install, operate, certify, and maintain NO_x-diluent system, and CO continuous emissions monitoring system in accordance with the applicable Performance Specifications under Appendix B to Part 60 of Chapter 40 for CO and Part 75 of Chapter 40 for NO_x, and diluent gas; and the procedures specified in Appendix D of 40 CFR 75 for determining the hourly heat input of the unit. Such monitor system shall include an automated data acquisition and handling system (DAHS). All required certification tests of the monitoring system must be completed no later than 90 unit operating days or 180 calendar days (whichever is sooner) after initial start-up from the natural gas conversion project.
[45 CSR §40-6.1. and 40 CFR §§75.70 and §§75.71]

For Using PEMS for NO_x and CO compliance

If the permittee elects to use an alternative monitoring system, such as a predictive emission monitoring system (PEMS), in the lieu of CEMS for the purposes of demonstrating compliance with the NO_x and CO emissions limits in Condition 4.1.1., the permittee must perform the following to demonstrate that the alternative monitoring system has the same or better precision, reliability, accessibility, and timeliness as that provided by the CEMS:

- a. F-test, Correlation Analysis, and a t-test for bias in accordance with 40 CFR §75.41 using a minimum of 720 hours of paired data sets.
[40 CFR §75.41]
- b. The reliability of the system shall be capable of providing valid 1-hour averages for 95.0 percent or more of unit operating hours over a 1-year period and that the system meet the applicable requirements of Appendix B of 40 CFR 75.
[40 CFR §75.42]
- c. The accessibility of the system that the system can provide reports and onsite records of emission data to demonstrate the alternative monitoring system provides data meeting the requirements of Subpart F and G of 40 CFR 75.
[40 CFR §75.43]
- d. The timeliness of the system can meet the requirements of Subpart F and G of 40 CFR 75; can provide a continuous, quality-assured, permanent record of the certified emission data on an hourly basis; and can issue a record of data for the previous day within 24 hours.
[40 CFR §75.44]
- e. The permittee shall either demonstrate that daily test equivalent to those specified in Appendix B of 40 CFR 75 can be performed on the alternative system or demonstrate and document that such tests are unnecessary for providing quality-assured data.
[40 CFR §75.45]

- f. The permittee shall demonstrate that all missing data can be accounted for in a manner consistent with the applicable missing data procedures in Subpart D of 40 CFR 75.
[40 CFR §75.46]

The permittee may elect to use an alternative monitoring system, which is referred as a predictive emission monitoring system (PEMS), in lieu of CEMS. Prior to using PEMS to solely measures hourly NO_x emissions, the permittee must have file a petition to the Administrator for approve and to certify the alternative monitoring system. Such petition must contain the information outline in 40 CFR §75.48. For using alternative monitoring system to determine the CO emissions, the permittee must demonstrate to the Director that the system meets the specification outline in Performance Specification 16 or
[45 CSR §40-6.1., 40 CFR §§75.70(h)(1), 75.66(d), and 75.48.]

The permittee must calculate and record an hourly average or heat input average (respective to the terms of the emission limit for the corresponding pollutant) emission rate on a daily basis for each pollutant identified in this condition for the boiler. CEMS unit conforming to the specifications of 40 CFR Part 75 shall use unbiased, un-substituted data to demonstrate compliance with the limits as specified in this permit.

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.3. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance preformed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.1. of this permit.

- 4.2.2. For No. 5 Boiler, the permittee shall install, operate, certify and maintain a continuous emission monitoring system (CEMS) for measuring NO_x, CO, and diluent gas (CO₂ or O₂) monitoring system from the exhaust of No. 5 Boiler in accordance with the applicable Performance Specifications under Appendix B to Part 60 of Chapter 40 for CO and Part 75 of Chapter 40 for NO_x, and diluent gas. Such monitor system shall include an automated data acquisition and handling system (DAHS). All required certification tests of the monitoring system must be completed no later than 90 unit operating days or 180 calendar days (whichever is sooner) after initial start-up from the natural gas conversion project.
[45 CSR 40-6.1. and 40 CFR §§75.70 and §§75.71]

The permittee may elect to use a predictive emission monitoring system (PEMS) as an alternative monitoring system in lieu of CEMS. Using PEMS, the permittee must have this alternative monitoring system certified under the applicable procedures of Subpart E of 40 CFR 75 and approved by the USEPA Administrator.

The permittee must calculate and record an hourly average or heat input average (respective to the terms of the emission limit for the corresponding pollutant) emission rate on a daily basis for each pollutant identified in this condition for the boiler. CEMS unit conforming to the specifications of 40 CFR Part 75 shall use unbiased, un-substituted data to demonstrate compliance with the limits as specified in this permit.

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing

compliance with the emission limit permitted in Condition 4.1.3. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.1. of this permit.

[45 CSR §40-6.1. and 40 CFR §75.70. and 75.73 (NO_x Monitoring)]

- 4.2.4. For No. 6 Boiler post conversion to natural gas, the permittee shall install, operate, certify and maintain a continuous emission monitoring system (CEMS) or approved Alternative Monitoring System for measuring NO_x, CO, and either CO₂ or oxygen analyzer according to the applicable procedures under Appendix B, and Appendix F to Part 60 of Chapter 40 on a continuous basis. Such monitor system shall include an automated data acquisition and handling system (DAHS).

The span value for the NO_x CEMs shall be 500 ppm (40 CFR §60.48b(e)(2)(i)) if applicable.

The permittee must conduct and pass a performance evaluation of the CEMS or PEMS according to the procedures under 40 CFR §60.13. within 180 days after restarting of the boiler.

For NO_x and CO₂ or O₂ direct measurement only; when NO_x emission data are not obtained because of CEMS or alternative monitoring system breakdown, repairs, calibration checks, and zero and span adjustment, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of Appendix A of Part 60, or other approved reference methods to provided emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of the 30 successive steam generating unit operating days. **[40 CFR §60.48b(f)]**

The permittee may elect to use a predictive emission monitoring system (PEMS) as an alternative monitoring system in lieu of CEMS. Such PEMS must meet the Performance Specification (PS) 16 of Appendix B-Performance Specifications and Appendix F-Quality Assurance Procedures to Part 60, which consist of passing an initial relative accuracy test audit (RATA) and quarterly relative accuracy audits (RAA) for the first year, followed by one (1) annual RATA and one (1) annual RAA each year after, and follow-up relative accuracy test, and conducting periodic quality assurance (QA) assessments. **[40 CFR 60.49(c)]**

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.4. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.1. of this permit.

[40 CFR §§60.48b(b) though (f) and 45 CSR 13-5.11]

- 4.2.5. For the purposes of demonstrating compliance with the mercury limitation in Condition 4.1.4., the permittee shall continuously monitor the concentration of mercury, flow rate of hydrogen gas being delivered to the Power House, and calculated mercury concentration of the hydrogen gas as delivered in terms of µg/dscm. The above monitoring is only required when either Nos. 4 and/or 6 Boilers are fire with any combination of hydrogen gas. Records of such monitoring shall be maintained in accordance with Condition 3.4.1.
- 4.2.6. Regarding the determination of valid hourly emission data using to determinate compliance with the 30-day rolling average limits in Condition 4.1.1., 4.1.2., and 4.1.3., the following criteria shall be using what hourly emissions data must be used in the 30-day rolling average.

- a. Except as noted in item c. of this condition, for a full operating hour of the unit at least four valid data point are required to calculate the hourly average (i.e. one data point in each of the 15-minute quadrants of the hour).
[40 CFR §60.7(h)(2)(i)]
- b. Except as noted in item c., for a partial operating hour of the unit, at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
[40 CFR §60.7(h)(2)(ii)]
- c. For any operating hour in which required maintenance or quality-assurance activities are performed of the monitoring system is not valid.
[40 CFR §60.7(h)(2)(iii)]
 - i. If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
[40 CFR §60.7(h)(2)(iii)(A)]
 - ii. If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
[40 CFR §60.7(h)(2)(iii)(B)]
- d. If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
[40 CFR §60.7(h)(2)(iv)]
- e. For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
[40 CFR §60.7(h)(2)(v)]
- f. Except as provided under item g. of this condition, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
[40 CFR §60.7(h)(2)(vi)]
- g. The permittee complying with the requirements of 40 CFR §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.
[40 CFR §60.7(h)(2)(vii)]
- h. Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).
[40 CFR §60.7(h)(2)(ix)]

4.3. Testing Requirements

[Reserved]

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** 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.
- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.
- For each such case associated with an equipment malfunction, the additional information shall also be recorded:
- e. The cause of the malfunction.
 - f. Steps taken to correct the malfunction.
 - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. The permittee shall keep records of fuel consumed by each boiler on a daily basis, which includes natural gas usage. For the purpose of demonstrating that the natural gas has insignificant amount of sulfur, the permittee shall keep fuel receipts (such as a, valid purchase contract, tariff sheet, or transportation contact) from the natural gas supplier.

Once the natural gas conversion for No. 6 Boiler has been completed, the permittee shall calculate the annual capacity factor for natural gas. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Such records shall be maintained in accordance with Condition 3.4.1.
[45CSR §2-7.1.a.6., and 45 CSR §10-8.3.c.][No. 6 Boiler only – 40 CFR §§60.49b(d)(2), (r)(1)]

- 4.4.5. The permittee shall maintain records of the monitoring as required in Conditions 4.2.1., 4.2.2., and 4.2.3 for each steam generating unit operating day of each boiler, which at least the following information:
- a. Calendar date;
 - b. The average hourly NO_x and CO emission rate in terms of lb per MMBtu heat input;
 - c. The 30-day average NO_x and CO emission rates calculated at the end of each steam generating unit operating day for the preceding 30 steam generating unit operating days;
 - d. Identification of steam generating unit operating days when the calculated 30 day average NO_x or CO emission rates are in excess of the respective limits in Conditions 4.1.1, 4.1.2. and 4.1.3. with reasons for such excess emissions and description of corrective actions taken;
 - e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, include reasons for not obtaining sufficient data and a description of corrective actions taken;
 - f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - g. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - h. Description of any modifications to the CEMS or PEMS that could affect the ability of the CEMS or PEMS to comply with respective Performance Specification (PS); and
 - i. Results of daily CEMS drift tests and quarterly accuracy assessments as required Appendix F, Procedure 1 or Part 75 if applicable to the monitoring system.

4.5. Reporting Requirements

- 4.5.1. The permittee shall submit to the Director within 45 days of completion of performance evaluation for the CEMS or PEMS for No. 4 Boiler two copies (or one electronic document pursuant to Condition 3.5.3) of the performance evaluation report of CEMS or PEMS for each unit and a copy of the Re-Certification Application.
[40 CFR §40 CFR §75.63.]
- 4.5.2. Once the CEMS or PEMS for No. 4, No. 5 and No. 6 Boilers has been certified after being converted to natural gas; *Semi-Annual CO and NO_x Excess Emission and Monitoring System Performance Report* to be included with the facility's Annual and Semi-Annual Title V Compliance Report, the permittee shall submit a report to the Director summarizing CO and NO_x emissions including periods of startups, shutdowns, malfunctions, and CEMS or PEMS system monitor availability for the reporting period. The reporting period is January 1st to June 30th and July 1st to December 31st. Such report shall contain the information collected during the respective reporting period as required in Condition 4.4.5. Any emissions data that indicates that the limits as stated in Section 4.1. were exceeded during the corresponding reporting period must be noted in this summary report. At the minimum, the date and time, length of the exceedances(s), magnitude, percentage of excess emissions, the limit that was exceeded, the cause of the exceedances, and the corrective action taken shall be included in the summary report. Submittal of 40 CFR 75 data (NO_x) in electronic data reporting (EDR or XML) format to the Administrator shall be deemed to satisfy the reporting

requirements of this condition for NO_x emissions from Nos. 4 and 5 Boilers, except that excess NO_x emission from No. 6 Boiler shall be included in this report.

[40 CFR §60.7(c); 40 CFR §§60.49b(h) and (2)(ii); and 45CSR§13-3]

- 4.5.3. The permittee shall submit a “Notification of Compliance Status” to the Director before the close of business on the sixtieth (60th) day after completion of the initial compliance demonstration as required in 40 CFR §63.7530(e) and (g) for No. 4 Boiler. Such “Notification of Compliance Status” shall be in accordance with 40 CFR §63.9(h)(2)(ii) and contain the information specified in 40 CFR §§63.7545(e)(1), (2), (6), (7) and (8), which included a statement the one time energy assessment was completed, the initial tune-up for the unit was completed and the initial fuel analysis was conducted according to §63.7525 for the hydrogen gas and meet the specifications as an “other gas (1) fuel” (Condition 4.1.4.).

[40CFR§63.7545(e), §63.7530(e) and (g)]

- 4.5.4. The permittee shall submit “5-year Compliance Reports” for the Nos. 4, 5, and 6 Boilers electronically using CEDRI that is accessed through the EPA’s Center Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form for this report is not available in CEDRI at the time the report is due, the permittee shall submit the report to the Administrator and Director using the addresses listed in Condition 3.5.3. The first compliance report shall be submitted no later than five years after the initial start-up of the unit and the first date ending on January 31. Subsequent reports shall be submitted once every five years afterwards. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5) (i)through (iv) and (xiv) which are:

- a. Permittee and facility name, and address;
- b. Process unit information, emission limitations, and operating limitations;
- c. Date of report and beginning and ending dates of the reporting period;
- d. Include the date of the most recent tune-up for each boiler; and
- e. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.

The permittee shall maintain records of such reports in accordance with Condition 3.4.1.

[40CFR §§63.7550(b), (b)(1), (c)(1), & (c)(5)(i) through (iv) and (xiv), and (h)(3)]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name & Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

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PUBLIC PARTICIPATION

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Public Notice

west virginia



department of environmental protection

Page 1 of 2

Public Notice

West Virginia Department of Environmental Protection Division of Air Quality

Comment Period Opens: February 9, 2024

Comment Period Closes: March 12, 2024

Publication: Charleston Newspapers and West Virginia State Register

Publication Date: February 9, 2024

Type of Notice: Public Comment Period and Public Hearing

Location: Virtual

Proposed Activity: WV NO_x SIP Call Demonstration and Plan Revision

Project Description: The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is soliciting comment and will hold a public hearing on the proposed *Revision to the West Virginia State Implementation Plan (SIP) to Update 45CSR40 - Control of Ozone Season Nitrogen Oxides Emissions*. The NO_x SIP Call Demonstration shows that West Virginia will remain in compliance with the NO_x ozone season budget for large non-EGU industrial boilers and combustion turbines.

The proposed SIP revision and demonstration are available at:

- the DAQ website at <https://dep.wv.gov/daq/publicnoticeandcomment/Pages/default.aspx>
- If you do not have internet capability, please contact DAQ for alternatives.

Point of Contact: Laura Jennings (laura.m.jennings@wv.gov or 304-926-0475)

Written comments may be submitted at any time during the public comment period as instructed below. Written comments must be received by 5:00 pm on March 12, 2024. Written comments received after 5:00 pm on March 12, 2024, will not be accepted. Instructions for participating and providing verbal comments at the public hearing are provided below. The DEP is holding the public hearing virtually. Both verbal and written comments will be made part of the official rulemaking record.

Written Comments:

- E-mail written comments to Laura.M.Jennings@wv.gov with “WV Proposed NOx SIP Call SIP Revision” in the subject line, or
- Mail hard copy comments to the attention of Laura Jennings at the WV Department of Environmental Protection, Division of Air Quality, 601 57th Street SE, Charleston, WV 25304.

Public Hearing: March 12, 2024 at 6:00 p.m.

The purpose of the public hearing is to receive comments concerning the proposed SIP revision to update 45CSR40 and the corresponding NOx SIP Call demonstration.

To participate online or by telephone, registration is required by 5:00 p.m. on Tuesday, March 12, 2024. To register, please complete the participant registration form at <https://forms.gle/xt4j9GnZzoqzvDzd6>. To register to speak, please indicate “yes” if you want to provide verbal comments on the record when you register with the previously provided link. A confirmation e-mail will be sent after you complete your registration. A separate email will be sent on Tuesday, March 12, 2024 by 5:15p.m. If you do not have internet access and want to register, please contact Nicole Ernest at (304) 414-1256. Registration for the online hearing is required to fulfill the state’s obligation under federal air quality regulations to document the list of participants.

If you wish to speak at the public hearing, verbal testimony is limited to 5 minutes for each witness. If participating virtually, video demonstrations and screen sharing by witnesses is not permitted.