

West Virginia Department of Environmental Protection

*Austin Caperton
Cabinet Secretary*

Construction Permit



R13-3495

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:

**Longview Power LLC
Maidsville
061-00134**

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

Issued: DRAFT

Facility Location: 1375 Fort Martin Road
Maidsville, Monongalia County, West Virginia 26541
Mailing: Same as Above
Facility Description: Electric Generation Unit
NAICS Codes: 221112
UTM Coordinates: 580.6 km Easting • 4,306.9 km Northing • Zone 17
Permit Type: Construction
Description of Change: This action is for establishing a standard of performance emission limit for carbon dioxide emitted from the Pulverized Coal-Fired Steam Generating Unit (PC-Boiler) in accordance with the Emission Guidelines of 40 CFR Part 60, Subpart UUUUa.

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.

Table of Contents

1.0.	Emission Units.....	4
2.0.	General Conditions.....	5
2.1.	Definitions	5
2.2.	Acronyms.....	5
2.3.	Authority.....	5
2.4.	Term and Renewal.....	6
2.5.	Duty to Comply	6
2.6.	Duty to Provide Information.....	6
2.7.	Duty to Supplement and Correct Information.....	6
2.8.	Administrative Update.....	7
2.9.	Permit Modification.....	7
2.10.	Major Permit Modification	7
2.11.	Inspection and Entry	7
2.12.	Emergency	7
2.13.	Need to Halt or Reduce Activity Not a Defense	8
2.14.	Suspension of Activities	8
2.15.	Property Rights	8
2.16.	Severability	8
2.17.	Transferability.....	8
2.18.	Notification Requirements.....	9
2.19.	Credible Evidence.....	9
3.0.	Facility-Wide Requirements	10
3.1.	Limitations and Standards	10
3.2.	Monitoring Requirements	10
3.3.	Testing Requirements	10
3.4.	Recordkeeping Requirements	11
3.5.	Reporting Requirements	12
4.0.	Source-Specific Requirements	14
4.1.	Limitations and Standards	14
4.2.	Monitoring Requirements	16
4.3.	Testing Requirements	18
4.4.	Recordkeeping Requirements	20
4.5.	Reporting Requirements	24
	CERTIFICATION OF DATA ACCURACY.....	25

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
SB1	EA1	Pulverized Coal-Fired Steam Generator (PC Boiler)	1/26/2007	6,114 MMBtu/hr	SCR/DSI/FF/WFGD

SCR – Selective Catalytic Reduction for reducing nitrogen oxides emissions
DSI – Dry Sorbent Injection for reducing acid gases emissions
FF – Fabric Filter Baghouse for reducing filterable PM emissions
WFGD – Wet Flue Gas Desulfurization for reducing sulfur dioxide emissions

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;*

2.4. 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 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 R13-3495, 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 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:
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

- 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. Except for periods of operation in Load Bin 0, carbon dioxide (CO₂) emissions released to the atmosphere from Emission Point EA1 shall not exceed the limit calculated using Equations 3 or 4 in section 4.4 of this permit. Calculated limits shall include all carbon dioxide emissions from the source and compliance shall be on a calendar-year basis. The following limits for each respective load bin shall be utilized as appropriate in Equations 1 and 2 in section 4.4. of this permit for determination of the Level 1 and Level 2 CO₂ Weighted Average Limits. The Level 1 Limits defined in 4.1.1.a. of this condition, shall apply at all times unless the permittee satisfies the requirements of 4.1.1.b of this condition, in which the Level 2 Limits go into effect in accordance with the timing as stipulated in 4.1.1.b. of this condition. While operating in Load Bin 0, the CO₂ emissions released to the atmosphere from Emission Point EA1 shall not exceed the limit in 4.1.1.a.i. This limit shall include all carbon dioxide emissions from the source and compliance shall be on a calendar-year basis.

- a. The following are the Level 1 CO₂ emissions limits for the corresponding Load Bins:
 - i. CO₂ emissions released while the electric steam generating unit (EGU) is operating greater than zero megawatt hour (MWh) (gross) to 313 MWh (gross), which shall be referred as Load Bin 0 (LB-0), shall have an initial bin limit not to exceed 9,864 pounds of CO₂ per MWh of gross electricity generation.
 - ii. CO₂ emissions released while the EGU is operating greater than 313 MWh (gross) up to 407 MWh (gross), which shall be referred as Load Bin 1 (LB-1), shall have an initial bin limit not to exceed 2,230 pounds of CO₂ per MWh of net electricity generation.
 - iii. CO₂ emissions released while the EGU is operating greater than 407 MWh (gross) up to 501 MWh (gross), which shall be referred as Load Bin 2 (LB-2), shall have an initial bin limit not to exceed 2,108 pounds of CO₂ per MWh of net electricity generation.
 - iv. CO₂ emissions released while the EGU is operating greater than 501 MWh (gross) up to 595 MWh (gross), which shall be referred as Load Bin 3 (LB-3), shall have an initial bin limit not to exceed 2,050 pounds of CO₂ per MWh of net electricity generation.
 - v. CO₂ emissions released while the EGU is operating greater than 595 MWh (gross) up to 689 MWh (gross), which shall be referred as Load Bin 4 (LB-4), shall have an initial bin limit not to exceed 2,002 pounds of CO₂ per MWh of net electricity generation.
 - vi. CO₂ emissions released while the EGU is operating greater than 689 MWh (gross), which shall be referred as Load Bin 5 (LB-5), shall have an initial bin limit not to exceed 1,958 pounds of CO₂ per MWh of net electricity generation.
- b. At times when the unit has experienced an equipment failure that requires the unit to be operated at a higher heat rate (degraded efficiency), the Level 2 CO₂ Limits for Load Bins 1 through 5 shall be the Level 1 CO₂ Limits multiplied by 1.10 (ten percent above the Level 1 Limits) in accordance with the following requirements:
 - i. The permittee shall initially notify the Director in accordance with Condition 3.5.1. within 72-hours of experiencing such an event.
 - ii. Within 12 days of the initial notification, the permittee shall formally notify the Director whether or not the event will require the Level 2 CO₂ Limits be placed into effect. If so,

the notification shall include a request for approval from the Director to operate under the Level 2 CO₂ Limits if the duration of the event is expected to last more than 180 days. This notification shall include the date and time when the unit commenced operations in a degraded efficiency mode, a justification that the Level 2 CO₂ Limits are required, and the expected duration of the Level 2 event. If the duration of the event is expected to end within 180 days of its commencement, the operation under the Level 2 CO₂ Limits shall be deemed approved unless the permittee is notified by the Director within fifteen (15) days of the formal notification that the event does not qualify as a Level 2 event. If the duration of the event is expected to last more than 180 days, the Director shall notify the permittee within 30 days on whether or not the event qualifies as a Level 2 event and thereby being approved or disapproved.

- iii. Within thirty days after the confirmed commencement of an event requiring Level 2 CO₂ Limits, the permittee shall develop and submit a corrective action plan to the Director. Within the plan, the permittee must identify the defective component/piece of equipment, identify repairs necessary to restore the unit's performance, and project the duration that the Level 2 Limits will be in effect. Such plan must identify milestones of critical tasks; identify resources needed for the repair(s) to include labor, materials, and special equipment; and include a projected timeline of restoring the unit. The permittee, upon request, may extend the projected duration with written approval by the Director. No individual period that the Level 2 CO₂ Limits are in affect shall extend beyond 24 months.
- iv. The permittee shall submit reports of the status of the corrective action plan at least once every two months. These reports shall include the number of hours the unit has operated in Load Bin 1 through 5 during the period, the average net heat rate of the unit, and the average CO₂ emission rate in lb/MWh net for the period.
- v. Within fifteen (15) days of restoring the unit's efficiency, the permittee shall notify the director that the Level 2 CO₂ Limits are no longer being utilized and that the unit has reverted back to the Level 1 CO₂ Limits. Within ninety (90) days of restoring the unit's efficiency, the permittee shall prepare a Root Cause Analysis (RCA) report of the event. The report shall identify the cause, identify corrective actions to prevent future failure(s) and/or measures to reduce the duration to complete repair for Level 2 CO₂ Limits durations that extend beyond six months. The report shall note total number of hours the unit has operated in Load Bins 1 through 5 during the period, the average net heat rate of the unit, and the average CO₂ emission rate in lb/MWh net for the period. In the event that a RCA may not be finalized within the 90 day period, a schedule shall be submitted detailing the reason(s) for non-completion as well as a timeline for completion.
- vi. The Level 2 CO₂ Limit does not apply to an event that causes a forced unit outage in which all repairs necessary to restart the unit may be completed immediately and renders the unit capable of achieving the Level 1 CO₂ Limit. In accordance with Condition 2.12., if repairs that would restore the unit to the Level 1 CO₂ Limit performance are not feasibly achievable, the Level 2 CO₂ Limit may be utilized by following the procedures in Condition 4.1.1.b.

All notifications and reports stipulated in Condition 4.1.1.b shall be submitted in accordance with Condition 3.5.3. and records of such submissions shall be maintained in accordance with Condition 3.4.1.

- c. Unit degradation adjustment Factor (UDAF) - After the initial compliance period, the CO₂ limit for each of the load bins in Condition 4.1.1.a. shall be adjusted (increased) annually by 0.4%. Once every five years after the initial compliance period, a recovery (decreased) percentage of 0.7% shall be applied to the individual CO₂load bin limits. The 0.7% recovery shall be applied to the most recent CO₂ limits adjusted by the annual 0.4% UDAF. The UDAF shall be applied

up to and including calendar year 2046. Beginning with calendar year 2047, the UDAF shall no longer be applied and the CO₂ Load Bin limits shall remain at the 2046 levels.

- d. Coal adjustment factor (CAF) shall be applied to the Level 1 and Level 2 CO₂ Limits with the appropriate UDAF applied limits. The CAF shall be the ratio of future CO₂ emissions divided by the baseline CO₂ emissions as determined in accordance with Condition 4.3.1.

The CAF is only applicable when the permittee requires a fuel switch that results in the different source of coal that the permittee has determined has an impact on the carbon dioxide emissions. Changes (variability) of measured coal properties from the same source of coal on a monthly basis does not constitute a CAF.

The CAF, not to exceed 3.0% for each instance for which it is determined, will increase or decrease the Level 1 and Level 2 CO₂ limits based on the calculated ratio as described above. If a CAF is applied, any subsequent required fuel switch that the permittee has determined has an impact on the carbon dioxide emissions (whether an increase or decrease) shall follow the aforementioned requirements and testing using the most recent previously adjusted CO₂ emissions and coal supply as the baseline to develop a new CAF ratio.

- 4.1.2. **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§13-5.10.]

4.2. Monitoring Requirements

- 4.2.1. The permittee must determine the hourly CO₂ mass emissions in pounds from the emission point EA1 according to the following paragraphs.
 - a. The permittee shall install, certify, operate, maintain, and calibrate a CO₂ continuous emission monitoring system (CEMS) to directly measure and record hourly average CO₂ concentrations in the affected EGU exhaust gases emitted to the atmosphere, and a flow monitoring system to measure hourly average stack gas flow rates, according to 40 CFR §75.10(a)(3)(i). If the permittee measures CO₂ concentration on a dry basis, the permittee must also install, certify, operate, maintain, and calibrate a continuous moisture monitoring system, according to 40 CFR §75.11(b).
 - b. For each continuous monitoring system that the permittee uses to determine the CO₂ mass emissions, the permittee must meet the applicable certification and quality assurance procedures in 40 CFR §75.20 and appendices A and B to 40 CFR Part 75.
 - c. The permittee must use only unadjusted exhaust gas volumetric flow rates to determine the hourly CO₂ mass emissions rate from the affected EGU; the permittee must not apply the bias adjustment factors described in Section 7.6.5 of appendix A to 40 CFR Part 75 to the exhaust gas flow rate data.
 - d. The permittee must select an appropriate reference method to setup (characterize) the flow monitor and to perform the on-going RATAs, in accordance with 40 CFR Part 75. If the permittee uses a Type-S pitot tube or a pitot tube assembly for the flow RATAs, the permittee must calibrate the pitot tube or pitot tube assembly. The permittee may not use the 0.84 default Type-S pitot tube coefficient specified in Method 2 in appendix A to 40 CFR Part 60.

- e. Calculate the hourly CO₂ mass emissions (lb) as described in Condition 4.2.1.(e)(i) through (iii) of this section. Perform this calculation only for “valid operating hours”, as defined in 40 CFR §60.5540(a)(1).
 - i. Begin with the hourly CO₂ mass emission rate (pounds/hr), obtained either from Equation F-11 in appendix F to 40 CFR Part 75 (if CO₂ concentration is measured on a wet basis), or by following the procedure in section 4.2 of appendix F to 40 CFR Part 75 (if CO₂ concentration is measured on a dry basis).
 - ii. Next, multiply each hourly CO₂ mass emission rate by the EGU or stack operating time in hours (as defined in 40 CFR §72.2), to convert it to tons of CO₂.
 - iii. The hourly CO₂ (pounds/hr) values and EGU (or stack) operating times used to calculate CO₂ mass emissions are required to be recorded under 40 CFR §75.57(e) and must be reported electronically under 40 CFR §75.64(a)(6). The permittee must use these data to calculate the hourly CO₂ mass emissions.
 - f. The permittee shall record the length of time that the EGU operated within each load bin as defined in Condition 4.1.1. a through b.
 - g. The permittee shall maintain records of maintenance performed, calibrations, performance evaluations, and CEMS data in accordance with Condition 3.4.1.
- 4.2.2. The permittee must install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross and net electric output, as applicable, from the permitted EGU. These instruments must use 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20 (incorporated by reference, see 40 CFR §60.17). The permittee shall maintain records of maintenance performed, calibrations, performance evaluations, and data within a data collection system in accordance with Condition 3.4.1.
- 4.2.3. The permittee shall maintain and operate a system that measures, records operational data of the EGU and calculates the unit heat rate in terms of Btu per kilowatt-hour based on using a Rankine cycle model of the permitted unit in accordance with latest version of the American Society of Mechanical Engineers (ASME) Performance Test Code Performance Monitoring Guidelines for Power Plant (ASME PTC PM-2010) or future test method developed by ASME to measure the heat rate from power plant. Records of the calculated heat rate reduced to hourly values and maintenance performed on the system shall be maintained in accordance with Condition 3.4.1.
- 4.2.4. The permittee shall evaluate the data as required to be collected under Condition 4.2.1. to determine if the data is “valid data” using the criteria set forth in this condition. Each compliance period shall include only “valid operating hours” in the compliance period, i.e., operating hours for which:
- a. “Valid data” is defined as quality-assured data generated by continuous monitoring systems that are installed, operated, and maintained according to 40 CFR Part 75. For CEMS, the initial certification requirements in 40 CFR §75.20 and appendix A to 40 CFR Part 75 must be met before quality-assured data are reported under this permit. For on-going quality assurance, the daily, quarterly, and semiannual/annual test requirements in sections 2.1, 2.2, and 2.3 of appendix B to 40 CFR Part 75 must be met and the data validation criteria in sections 2.1.5, 2.2.3, and 2.3.2 of appendix B to 40 CFR Part 75 apply. For fuel flow meters, the initial certification requirements in section 2.1.5 of appendix D to 40 CFR Part 75 must be met before quality-assured data are reported under this permit, and for on-going quality assurance, the provisions in section 2.1.6 of appendix D to 40 CFR Part 75 apply.

- b. “Valid data” are obtained for all of the parameters used to determine the hourly CO₂ mass emissions (lb) and,
- c. The corresponding hourly net energy output value is also valid data (Note: For hours with no useful output, zero is considered to be a valid value).
- d. The permittee must exclude operating hours in which:
 - i. The substitute data provisions of 40 CFR Part 75 are applied for any of the parameters used to determine the hourly CO₂ mass emissions; or
 - ii. An exceedance of the full-scale range of a continuous emission monitoring system occurs for any of the parameters used to determine the hourly CO₂ mass emissions or, if applicable, to determine the hourly heat input; or
 - iii. The total net energy output is unavailable.
- e. For each compliance period, at least 95 percent of the operating hours in the compliance period must be valid operating hours, as defined in paragraph a of this condition.
 - i. At times when the CEMS CO₂ emission data falls below the above 95% threshold during the compliance period, the permittee shall use the procedures from Appendix G to 40 CFR Part 75 to determine the CO₂ emissions for the periods when CO₂ emissions data is missing.
- f. The permittee must calculate the total CO₂ mass emissions by summing the valid hourly CO₂ mass emissions values from monitored data collected under Condition 4.2.1. for all the valid operating hours for each month within the compliance period.

4.3. Testing Requirements

- 4.3.1. Within 90 days prior to conducting a fuel switch that the permittee has determined an adjustment to the CO₂ limit is needed, the permittee shall conduct emission testing to establish the CAF to be applied to the CO₂ limit. Such testing shall be conducted by an independent third-party to establish the following:
 - a. Establish baseline of CO₂ emissions of the current coal utilized with the unit operating in Load Bin 5 for at least 90% of the operating hours during a consecutive operating period of no less than 7 operating days.
 - i. Determine the CO₂ emissions of the future coal with the unit operating in Load Bin 5 for at least 90% of the operating hours during a consecutive operating period of no less than 7 operating days.
 - ii. The standard deviation of the CO₂ emissions data used in the ratio to develop the CAF for each of the two phases (baseline and future coal) of testing must not be greater than 68 lb/MWh-net.
 - iii. Determine the Net Hourly Heat Rate of the unit during all phases of testing.
 - b. Prior to conducting the testing of the future coal source, the permittee shall tune the unit to the future coal source for optimum performance while operating in Load Bin 5 using manual operation and intelligent combustion-controlled operation. The process of tuning the unit shall include three phases, manual control, hybrid between manual and intelligent combustion control operation, and intelligent combustion-controlled operation. The timing for this tuning phase shall not exceeded 30 days.

- c. The protocol must include the following:
 - i. The protocol must provide justification that the CO₂ limits will be affected by utilizing the future source of coal. At a minimum, such justification shall identify how the new source of fuel differs in characteristics from the existing source in terms of heating value, sulfur, and ash content and how these and other different characteristics will influence heat rate and compliance with CO₂ limits. Such justification may include but not be limited to evaluations of impact on CO₂ emissions using alternative procedures in Appendix G of 40 CFR Part 75 or other third party coal quality analysis programs that determine the unit performance output due to fuel quality.
 - ii. The protocol must outline how the unit will be tuned to the future source of coal and how the third-party firm will be determining/evaluating that the unit has been optimized to the future source of coal. The protocol must provide duration for tuning and what parameter(s) will be evaluated to determine if the unit has been optimized.
 - iii. The protocol must outline any contingency plans for extending the testing to meeting the emission data quality requirements and procedures for notifying the Director when implementing it.
 - iv. Procedures for collecting, processing, reviewing and evaluating the emissions data.
 - v. The protocol must identify the third-party and roles that the third-party will take overseeing the tuning of the unit, emission testing, and evaluation of the data collected.
 - vi. The protocol must identify the credentials and qualification of the third-party overseeing this testing.
 - vii. The protocol must conform to the testing requirements of Condition 3.3.1.
- d. Within 60 days of completion of these tests, the permittee shall develop a test report which shall include the following:
 - i. Hourly CO₂ emissions data of the baseline and future coal runs.
 - ii. Hourly Heat Rate of the unit during the testing.
 - iii. Readings of the unit parameters proposed to be used to determine when the unit is optimized on the future coal during the tuning and testing phases.
 - iv. Evaluation of the emissions data collected during the baseline and future coal runs of the testing.
 - v. Determination that the CAF of the proposed future coal is necessary.
 - vi. Determination of the CAF to be applied to the CO₂ Limits for Load Bins 0 through 5 for this future coal source if applicable.
 - vii. List the adjusted CO₂ limits for Load Bins 0 through 5 with the CAF applied.
 - viii. List the date and time of when the unit continuously utilizes the new coal source.
- e. Records of the testing, protocol, and results shall be maintained in accordance with Condition 3.3.1.

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.
 - The duration of the event.
 - The estimated increase in emissions during the event.
- For each such case associated with an equipment malfunction, the additional information shall also be recorded:
- The cause of the malfunction.
 - Steps taken to correct the malfunction.
 - Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. Except for the limit for LB-0 in condition 4.1.1.a.i., the permittee shall determine the CO₂ Weighted Average Limit for each calendar year in accordance with the following:

Equation 1

$$\text{Level 1 CO}_2\text{ weighted Avg} = \frac{\sum OPHL_{1LB-1} \times CO_{2LB-1} + \sum OPHL_{1LB-2} \times CO_{2LB-2} + \sum OPHL_{1LB-3} \times CO_{2LB-3} + \sum OPHL_{1LB-4} \times CO_{2LB-4} + \sum OPHL_{1LB-5} \times CO_{2LB-5}}{\sum OPHL_{1total}}$$

Where:

Level 1 CO₂ weighted Avg =

Level 1 CO₂ Weighted Average Limit for the compliance period in terms of pounds of CO₂ per MWh (net).

$\sum OPHL1_{LB-1}$ = Total Level 1 operating hours in Load Bin 1

CO_{2LB-1} = The CO₂ limit for Load Bin 1 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL1_{LB-2}$ = Total Level 1 operating hours in Load Bin 2

CO_{2LB-2} = The CO₂ limit for Load Bin 2 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL1_{LB-3}$ = Total Level 1 operating hours in Load Bin 3

CO_{2LB-3} = The CO₂ limit for Load Bin 3 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL1_{LB-4}$ = Total Level 1 operating hours in Load Bin 4

CO_{2LB-4} = The CO₂ limit for Load Bin 4 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL1_{LB-5}$ = Total Level 1 operating hours in Load Bin 5

CO_{2LB-5} = The CO₂ limit for Load Bin 5 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL1_{total}$ = Total Level 1 operating hours excluding hours operating in Load Bin 0 (LB-0)

Equation 2

Level 2 CO₂ weighted Avg =

$$1.10 \times \left(\frac{\sum OPHL2_{LB-1} \times CO2_{LB-1} + \sum OPHL2_{LB-2} \times CO2_{LB-2} + \sum OPHL2_{LB-3} \times CO2_{LB-3} + \sum OPHL2_{LB-4} \times CO2_{LB-4} + \sum OPHL2_{LB-5} \times CO2_{LB-5}}{\sum OPHL2_{total}} \right)$$

Where:

Level 2 CO₂ weighted Avg =

Level 2 CO₂ Weighted Average Limit for the compliance period in terms of pounds of CO₂ per MWh (net).

$\sum OPHL2_{LB-1}$ = Total Level 2 operating hours in Load Bin 1

CO_{2LB-1} = The CO₂ limit for Load Bin 1 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL2_{LB-2}$ = Total Level 2 operating hours in Load Bin 2

CO_{2LB-2} = The CO₂ limit for Load Bin 2 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL2_{LB-3}$ = Total Level 2 operating hours in Load Bin 3

CO_{2LB-3} = The CO₂ limit for Load Bin 3 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL2_{LB-4}$ = Total Level 2 operating hours in Load Bin 4

CO_{2LB-4} = The CO₂ limit for Load Bin 4 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL2_{LB-5}$ = Total Level 2 operating hours in Load Bin 5

CO_{2LB-5} = The CO₂ limit for Load Bin 5 in terms of pounds of CO₂ per MWh (net)

$\sum OPHL2_{total}$ = Total Level 2 operating hours excluding hours operating in Load Bin 0 (LB-0)

1.10 = Ten (10) percent increase of the Level 1 Limits in Condition 4.1.1.a.

Equation 3

$$CO_2 \text{ Weighted Avg} = \frac{(Level\ 1\ CO_2\ weighted\ avg \times \sum OPHL1_{total}) + (Level\ 2\ CO_2\ weighted\ avg \times \sum OPHL2_{total})}{\sum OPHL1_{total} + \sum OPHL2_{total}}$$

Where:

CO₂ weighted Avg =
 CO₂ Weighted Average Limit for the compliance period in terms of pounds of CO₂ per MWh (net).

$\sum OPHL1_{total}$ = Total Level 1 operating hours excluding hours operating in Load Bin 0 (LB-0)

$\sum OPHL2_{total}$ = Total Level 2 operating hours excluding hours operating in Load Bin 0 (LB-0)

For times when a CAF is applied after the beginning of a compliance period, the permittee shall determine the Level 1 *CO₂ weighted avg* and Level 2 *CO₂ weighted avg* for the before the CAF and after the CAF using Equations 1 and 2 and the appropriate CO₂ limits for each of the load bins. The permittee shall use the following equation to determine the *CO₂ weighted avg* in lieu of Equation 3.

Equation 4

$$CO_2 \text{ Weighted Avg} = \frac{(Level\ 1\ CO_2W_{BCAF} \times \sum OPHL1_{BCAF}) + (Level\ 2\ CO_2W_{BCAF} \times \sum OPHL2_{BCAF}) + (Level\ 1\ CO_2W_{ACAF} \times \sum OPHL1_{ACAF}) + (Level\ 2\ CO_2W_{ACAF} \times \sum OPHL2_{ACAF})}{\sum OPHL1_{BCAF} + \sum OPHL2_{BCAF} + \sum OPHL1_{ACAF} + \sum OPHL2_{ACAF}}$$

Where:

CO₂ Weighted Avg = the weighted average of the CO₂ Limits adjusted for the compliance period when a CAF is applicable, in terms of lb of CO₂ per MWh of net generation.

Level 1 CO₂W_{BCAF} = Level 1 CO₂ weighted average limit calculated using Equation 1 of the time period before the CAF was taken into effect.

$\sum OPHL1_{BCAF}$ = The sum of the operating hours of the unit in Level 1 before the CAF was taken into effect.

Level 2 CO₂W_{BCAF} = Level 2 CO₂ weighted average limit calculated using Equation 2 of the time period before the CAF was taken into effect.

$\sum OPHL2_{BCAF}$ = The sum of the operating hours of the unit in Level 2 before the CAF was taken into effect.

Level 1 CO₂W_{ACAF} = Level 1 CO₂ weighted average limit calculated using Equation 1 of the time period after the CAF was taken into effect.

$\sum OPHL1_{ACAF}$ = The sum of the operating hours of the unit in Level 1 after the CAF was taken into effect.

Level 2 CO_{2WACAF} = Level 1 CO_2 weighted average limit calculated using Equation 2 of the time period after the CAF was taken into effect.

$\sum OPHL2_{ACAF}$ = The sum of the operating hours of the unit in Level 2 after the CAF was taken into effect.

Should the Administrator promulgate a revised CO_2 emission standard for new, modified, or reconstructed coal-fired EGUs under Subpart TTTT of 40 CFR 60 that are less stringent than the limitations in this permit, then the permittee is required to demonstrate compliance for that respective year to the revised Subpart TTTT standard. Should the revised Subpart TTTT standard be in terms that differ from the limit in this permit, the Director shall review and approve any method used to convert the limits into common terms.

[W.Va. Code §22-5-4(a)(4)]

Records of all calculations shall include the CO_2 weighted average limit and shall be maintained in accordance with Condition 3.4.1

- 4.4.5. Compliance Demonstrations: The initial compliance period shall begin on January 1, 2021 and end on December 31, 2021. Subsequent compliance periods shall follow thereafter. The compliance demonstration shall be performed no later than March 1 after the compliance period.

The permittee shall demonstrate compliance with the CO_2 Load Bin 0 Limit in Condition 4.1.1a.1 by summing the hourly CO_2 emissions that occurred when the unit was operating in Load Bin 0 during the compliance period divided by the sum of the gross generation from the unit in Load Bin 0 during the compliance period.

Excluding CO_2 rates and generation that occurred while the unit was operating in Load Bin 0, the permittee shall conduct a compliance demonstration with the CO_2 Weighted Average limit as calculated from either Equation 3 or 4 in Condition 4.4.4. The compliance demonstration shall be determined by taking the sum of the valid hourly CO_2 rates in terms of lb divided by the sum of the net electricity generation (MWh net) in the respective compliance period for Load Bins 1 through 5. Excess CO_2 emissions is the amount of the actual annual average CO_2 rate above the CO_2 weighted average limit, if any.

Records of all demonstrations shall include actual annual average CO_2 rate and excess CO_2 emissions and shall be maintained in accordance with Condition 3.4.1.

- 4.4.6. The permittee shall maintain the following records:
- a. Monitoring plan records under 40 CFR §75.53(g) and (h);
 - b. Operating parameter records under 40 CFR §75.57(b)(1) through (4).
 - c. The records under 40 CFR §75.57(c)(2), for stack gas volumetric flow rate;
 - d. The records under 40 CFR §75.57(c)(3) for continuous moisture monitoring systems;
 - e. The records under 40 CFR §75.57(e)(1), except for paragraph (e)(1)(x), for CO_2 concentration monitoring systems;
 - f. The records under 40 CFR §75.58(c)(4), specifically paragraphs (c)(4)(i), (ii), (iv), (v), and (vii) through (xi), for gas flow meters;
 - g. The quality-assurance records under 40 CFR §75.59(a), specifically paragraphs (a)(1) through (12) and (15), for CEMS;

- h. Records of data acquisition and handling system (DAHS) verification under 40 CFR §75.59(e).
- i. Records of the calculations performed to determine the hourly and total CO₂ mass emissions (tons) for:
 - i. Each operating month; and
 - ii. Each compliance period, including, each 12-operating-month compliance period.
- j. Records of the applicable data recorded, and calculations performed that are used to determine the EGU's net energy output for each operating month.
- k. Records of the calculations performed to determine the percentage of valid CO₂ mass emission rates in each compliance period.
- l. Records of the calculations performed to determine the weighted average CO₂ limits.

These records shall be maintained in accordance with Condition 3.4.1.

4.5. Reporting Requirements

- 4.5.1. The permittee shall prepare and submit an Annual Compliance report to the Director in accordance with Condition 3.5.3. by no later than March 1 following the end of each compliance period. Such report shall include the following and be certified by a responsible official.
 - a. The CO₂ Weighted Limits, Level 1 CO₂ Weighted Limits and the Level 2 CO₂ Weighted Limits, when applicable, as determined from Equations 1, 2 and 3 in Condition 4.4.4.
 - b. The current and next compliance period CO₂ Limit for each load bin adjusted in accordance with unit degradation adjustment factor provisions of Condition 4.1.1.c. and coal adjustment factor of Condition 4.1.1.d. when applicable.
 - c. The actual CO₂ rate of Load Bins 1 through 5 in terms of the limit for the compliance period.
 - d. The actual CO₂ rate of Load Bin 0 during the compliance period.
 - e. Excess emissions if any.
 - f. The percentage of valid operating hours during the compliance period.
 - g. The number of operating hours for each load bin as defined in Condition 4.1.1. during the compliance period.
 - h. The net energy output during the compliance period excluding operations occurring in Load Bin 0.
 - i. The gross energy output during the compliance period for Load Bin 0.
 - j. The annual average heat rate.

Records of such reports shall be maintained in accordance with Condition 3.4.1.

- 4.5.2. The permittee shall submit reports as required under Subpart G of 40 CFR Part 75 that are applicable to the permitted facility.

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.