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Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Virginia Electric and Power Company
Facility Name: Pittsylvania Power Station
Facility Location: 821 Grit Road
Hurt, Virginia
Registration Number: 30871
Permit Number: BRRO-30872

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 4 through 32)

April 30, 2014
Effective Date

April 29, 2019
Expiration Date

Robert J. Weld
Regional Director

April 30, 2014
Signature Date

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A – Compliance Assurance Monitoring Plan

Facility Information

Permittee
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Responsible Official
Frank Brayton
Station Director
Power Generation System Operations

Facility
Pittsylvania Power Station
821 Grit Road
Hurt, Virginia 24563

Contact Person
Cathy C. Taylor
Director, Environmental Services
804-273-2929

County-Plant Identification Number: 51-143-00123

Facility Description: NAICS 221119 – Virginia Electric and Power Company is authorized to operate Pittsylvania Power Station, a power production facility, located in Hurt, Virginia. The plant uses three identically sized wood-fired spreader stoker boilers (Units 101-103), each having a rated capacity of 373.3 MMBtu/hr (heat input) to generate steam. The steam from the three boilers is directed to two turbine-driven electric generators, each with a rated maximum generating capacity of 45 megawatts (MW) of electrical power. The facility also contains one auxiliary emergency diesel generator (Unit 110), a fire pump and associated fuel storage tanks, wood storage, and handling equipment and ash handling and storage.

Emission Units

Equipment to be operated consists of:

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity* | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Permit Date |
|------------------|----------|--|-------------------------------------|---|-------------------------------|----------------------|-------------|
| 101, 102, 103 | S1 | Spreader stoker wood-fired boiler to generate steam to produce electricity | 373.7 MMBtu/hr each (nominal) | Multicyclone Electrostatic Precipitator SNCR/urea injection | EC-S101 EC-S102 EC-S103 | PM PM NOx | 11/12/13 |
| 110 | S2 | Caterpillar diesel auxiliary emergency generator (approx. 1990) | 14.68 MMBtu/hr (2,146 HP) (nominal) | None | N/A | N/A | 11/12/13 |
| 111 | N/A | Emergency Diesel fire pump (1984) | 0.24 MMBtu/hr (340 HP) (nominal) | None | N/A | N/A | N/A |
| 121 | N/A | Fixed roof fuel oil storage tanks | 5,000 gallons | Submerged or bottom fill loading and conservation vent | N/A | VOC | 11/12/13 |
| 122 | N/A | Fixed roof fuel oil storage tanks | 10,000 gallons | Submerged or bottom fill loading and conservation vent | N/A | VOC | 11/12/13 |
| 201 | N/A | Wood Stockpile | 85,000 tons | As required by Conditions 42 and 44 of this permit | N/A | PM | 11/12/13 |
| 202.a and b | N/A | Wood reclaim pit vent fans (two) | 5 h.p. each | As required by Conditions 42 and 44 | N/A | PM | 11/12/13 |

| | | | | | | | |
|-----|-----|-----------------------|-------------|---|--------|----|----------|
| | | | | of this permit | | | |
| 203 | N/A | Wood conveyance | 150 tons/hr | e As required by Conditions 42 and 44 of this permit | N/A | PM | 11/12/13 |
| 301 | N/A | Flyash Silo | 3.5 tons/hr | Fabric filter | EC-301 | PM | 11/12/13 |
| 302 | N/A | Flyash loading | 3.5 tons/hr | Wet suppression | N/A | PM | 11/12/13 |
| 303 | N/A | Bottom ash conveyance | 0.5 tons/hr | Wet suppression and enclosure | N/A | PM | 11/12/13 |

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103)

Limitations

1. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
Particulate emissions from each primary wood boiler (Units 101, 102, 103) shall be controlled by multicyclone/electrostatic precipitator combination rated at 99.7 percent control efficiency. The multicyclones and ESPs shall be provided with adequate access for inspection. The permittee shall operate the facility in accordance with the startup/shutdown plan submitted to DEQ on March 10, 1997, as amended June 22, 1998.
(9 VAC 5-80-110 and Condition 3 of 11/12/13 Permit)

2. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
Nitrogen oxide emissions from the wood boilers (Units 101, 102, 103) shall be controlled by the use of a selective noncatalytic reduction/urea injection system designed to achieve a minimum removal of 50 percent on a thirty day rolling average basis. The control system shall operate at all times that fuel is fed to the main boilers, except for specific time periods during startup and shutdown. The permittee shall operate the facility in accordance with the startup/shutdown plan submitted to DEQ on March 10, 1997, as amended June 22, 1998.
(9 VAC 5-80-110 and Condition 7 of 11/12/13 Permit)

3. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
The boilers (Units 101, 102, 103) shall consume no more than a total of 1,048,512 tons of wood per year (on a 40 percent moisture content basis), calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 11 of 11/12/13 Permit)

4. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
The approved fuel for the three spreader stoker boilers (Units 101, 102, 103) is wood. "Wood" is defined for the purpose of this condition as wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues. This definition does not include wood contaminated with, but not limited to finishing materials, laminated coatings, adhesives, and lacquers. A change in the fuels may require a permit to modify and operate. Upon the request of the Department, the permittee shall obtain an analysis of the wood to be approved by the Department to verify compliance with this condition. In addition, the permittee shall maintain records of all wood shipments, including origin of shipment and a certification that the wood fuel meets the definition of wood as stated in this condition. These records shall be available on site for the inspection by Department personnel and shall be kept current for the most recent five-year period.
(9 VAC 5-80-110, Condition 20 of 11/12/13 Permit Document and 40 CFR Subpart Db §60.41b)

5. Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -
 The permittee shall obtain the following analyses:

- a. An analysis of the wood heat content at least once per week.
- b. An analysis of the wood sulfur content at least once per quarter.
- c. An analysis of the wood to verify compliance with Condition 4 of this permit, at the request of the Department but no more than once per week.

Details of the sampling procedure shall be arranged with the Blue Ridge Regional Office. Records of fuel quality analysis shall be available on site for inspection by Department personnel and shall be kept current for the most recent five year period. (9 VAC 5-80-110 and Condition 21 of 11/12/13 Permit)

6. Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -
 Emissions from the operation of each wood fired boiler shall not exceed the limits specified below:

| | | |
|---|-------------------------------|--------------------------------|
| Particulate Matter | 0.02 lbs/10 ⁶ Btu | 7.47 lbs/hr |
| PM-10 (total) | 0.02 lbs/10 ⁶ Btu | 7.32 lbs/hr |
| Sulfur Dioxide 30 – day rolling avg | 0.016 lb/10 ⁶ Btu | 6.0 lbs/hr |
| Nitrogen Oxides (30 – day rolling avg) | 0.10 lbs/10 ⁶ Btu | 37.4 lbs/hr |
| Carbon Monoxide | 0.35 lbs/10 ⁶ Btu | 130.8 lbs/hr |
| Volatile Organic Compounds | 0.07 lbs/10 ⁶ Btu | 26.2 lbs/hr |
| Ammonia | 10.0 lbs/hr | 240.0 lbs/day |
| Benzene | 5.2 lb/hr | 125.0 lbs/day |
| Fluorides (As HF) | 6.4 x 10 ⁻¹ lbs/hr | 15.4 lbs/day |
| Formaldehyde | 3.7 x 10 ⁻¹ lbs/hr | 8.9 lbs/day |
| Naphthalene | 3.6 x 10 ⁻² lbs/hr | 8.7 x 10 ⁻¹ lbs/day |
| Phenol | 1.9 lbs/hr | 45.6 lbs/day |

(9 VAC 5-80-110, Condition 13 of 11/12/13 Permit and 40 CFR Subpart Db §60.43b(c))

7. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -** Emissions from the combined operation of the three wood fires boilers (Units 101, 102, and 103) shall not exceed the limits specified below:

| | | |
|--|-------------------------------|-------------|
| Sulfur Dioxide 3-hour rolling average | 0.016 lbs/10 ⁶ Btu | 54.0 lbs/hr |
| Sulfuric Acid Mist | 0.22 lb/hr | 5.38 lb/day |

(9 VAC 5-80-110 and Condition 14 of 11/12/13 Permit)

8. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -** Annual Emissions from the combined operation of the three boilers (Units 101, 102, and 103) shall not exceed the limits specified below:

| | |
|----------------------------|----------------|
| Particulate Matter | 96.4 tons/yr |
| PM-10 (total) | 94.5 tons/yr |
| Sulfur Dioxide | 77.1 tons/yr |
| Nitrogen Oxides | 482.1 tons/yr |
| Carbon Monoxide | 1687.3 tons/yr |
| Volatile Organic Compounds | 337.5 tons/yr |

(9 VAC 5-80-110 and Condition 15 of 11/12/13 Permit)

9. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -** Visible emissions from the boilers' (Units 101, 102, 103) stack shall not exceed ten (10) percent opacity) except during one six-minute period per hour which shall not exceed twenty (20) percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.
(9 VAC 5-80-110, Condition 18 of 11/12/13 Permit and 40 CFR Subpart Db §60.43b(f) and (g))

10. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
The requirements of 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, including future revisions and applicable requirements of 40 CFR part 60, Subpart A apply to the three spreader stoker wood-fired boilers (Units 101, 102, and 103).
(9 VAC 5-50-410, 40 CFR Subpart Db §60.40b and 40 CFR 60Subpart A)
11. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Limitations -**
The boilers (Units 101, 102, 103) are subject to the applicable limitations, monitoring, recordkeeping, testing and reporting requirements of 40 CFR 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; and the general provisions of 40 CFR Part 63 per §63.7565. The permittee must comply with the applicable requirements by the date established by §63.7495(b).
(9 VAC 5-80-110 and 40 CFR §63.7485 and §63.7490)

Monitoring

12. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring -**
Continuous emission monitors shall be installed to measure and record opacity (one opacity monitor for the three boilers), and the concentrations of NO_x and either CO₂ or O₂ emitted from each of the wood boilers. The opacity monitor shall be maintained, located and calibrated in accordance with approved procedures in 40 CFR 60.13. The NO_x and either CO₂ or O₂ monitors shall be maintained, located and calibrated as specified in 40 CFR 60 Appendix B and Appendix F. Records of service and maintenance will be kept on file for five years. The monitors shall be operated when the boilers are operating. The opacity monitor shall be operated as required by 40 CFR 60, Subpart Db. A 30-day notification prior to the demonstration of continuous monitoring system performance (and any subsequent notifications), are to be submitted to the Blue Ridge Regional Office.
(9 VAC 5-80-110 and Condition 24 of 11/12/13 Permit and 40 CFR Subpart Db §60.48b(a))
13. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring -**
The continuous monitoring data generated by the continuous emission monitors on the boilers shall be used to determine compliance with the emissions and opacity standards. The opacity monitor reporting requirements of 40 CFR 60, Subpart Db shall apply. The data capture, quality assurance provisions, and reporting requirements of 40 CFR 60, Subpart Db shall apply to the NO_x and either CO₂ or O₂ monitors.
(9 VAC 5-80-110 and Condition 25 of 11/12/13 Permit)

14. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring –**
For all boiler continuous emission monitors required by this permit, the continuous monitoring and quality assurance data may, at the discretion of the Board, be used as evidence of violation of the emission standards. These monitors are subject to such data capture requirements and/or quality assurance requirements as may be deemed appropriate by the Board (refer to 40 CFR 60.13 and 40 CFR 60, Appendices B and F).
(9 VAC 5-80-110 and Condition 26 of 11/12/13 Permit)
15. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring – Compliance Assurance Monitoring (CAM) -** The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the multicyclones and ESPs controlling PM from the three boilers (Units 101, 102, and 103). The approved monitoring plan shall be the attached CAM Plan (Attachment A) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 22; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 23; or (3) otherwise approved by the DEQ conforming with Condition 16 of this section, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))
16. **Fuel Burning Equipment Requirements - (Boilers emission unit ID 101, 102 and 103) - Monitoring – Compliance Assurance Monitoring (CAM) -** Each monitor shall be operated according to manufacturer’s specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
- a. Indicator;
 - b. Measurement Approach;
 - c. Indicator Range or Condition(s) for Range Development; and
 - d. The following performance criteria:
 - i. Data Representativeness;
 - ii. Verification of Operational Status;
 - iii. QA/QC Practices and Criteria;
 - iv. Monitoring Frequency;
 - v. Data Collection Procedures; and
 - vi. Averaging Period.

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.

(9 VAC 5-80-110 E and 40 CFR 64.6(c))

17. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM) -** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.6 (c))

18. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (b))

19. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the boilers 101, 102 and 103 are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7(c))

20. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - Upon detecting an excursion or exceedance, the permittee shall restore operation of the boilers 101, 102 and 103 (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (d)(1))

21. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7(d)(2))

22. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Blue Ridge Regional Office and submit a revised CAM Plan for approval to the Blue Ridge Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7(e))

23. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the boilers (101, 102 and 103) for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility.

- a. Improved preventative maintenance practices;
- b. Process operation changes;
- c. Appropriate improvements to control methods;
- d. Other steps appropriate to correct control performance; and
- e. More frequent or improved monitoring.

(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.8(a) and (b))

24. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Monitoring - Compliance Assurance Monitoring (CAM)** - Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.10)

Recordkeeping

25. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include:

- a. Records of scheduled and non-scheduled maintenance of process equipment, air pollution control equipment or monitoring equipment.
(Condition 27.a and Condition 31 of the 11/12/13 Permit)
- b. Ton of wood annual throughput for the facility for the boilers (units 101, 102 and 103). The annual throughput shall be calculated as the sum of each consecutive twelve (12) month period.
(Condition 30 of the 11/12/13 Permit)
- c. Records of the wood shipments required by Condition 4.
- d. Records of the wood analyses required by Condition 5.
- e. The permittee shall maintain records of the pollutant-specific emission factors, "F" factor, and the equations used to determine compliance with emissions limits in Conditions 6, 7 and 8.
- f. All reports and records required by 40 CFR 60 Subpart Db.
- g. Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative required by 40 CFR 60.7(b).
- h. Maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection required by 40 CFR 60.7(f).
- i. Records of service and maintenance for the continuous emissions monitoring systems as required by Condition 12.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 40 CFR Subpart Db §60.49b and 40 CFR Subpart A)

26. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Compliance Assurance Monitoring (CAM) Recordkeeping** - The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 E and 40 CFR 64.9(b))

Testing

27. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) –Testing** -
- a. At a frequency not to exceed once every five years, and upon request by the DEQ, the permittee shall conduct a stack test for PM, PM-10, and CO from each boiler (Units 101, 102 and 103) to demonstrate compliance with the applicable pounds per million Btu and hourly emission limits contained in this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110)
 - b. To determine compliance with the PM emission limits and opacity limits of 40 CFR Subpart Db the owner or operator of an affected facility shall conduct subsequent performance tests as requested by the Administrator, using the procedures and reference methods as stated in 40 CFR Subpart Db §60.46b(d).
(9 VAC 5-80-110 and 40 CFR 60 Subpart Db)
28. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Reporting

29. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Reporting** - Excess emission and monitoring system performance reports for the opacity monitor shall be submitted to the Blue Ridge Regional Office semi-annually in accordance with the applicable requirements of 40 CFR 60.49b and 60.7.
(9 VAC 5-80-110, 40 CFR 60 Subpart Db and 40 CFR 60 Subpart A)
30. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Reporting** - Excess emission and monitoring system performance reports for the NO_x and CO₂ or O₂ monitors shall be submitted to the Blue Ridge Regional Office semi-annually following the procedures of 40 CFR 60.49b(g).
(9 VAC 5-80-110)

31. **Fuel Burning Equipment Requirements - (Boilers 101, 102 and 103) - Compliance Assurance Monitoring (CAM) Reporting** - The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by General Condition 68 of this permit to the Blue Ridge Regional Office. Such reports shall include at a minimum:
- a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9 VAC 5-80-110 F and 40 CFR 64.9(a))

**Fuel Burning Equipment Requirements - (Auxiliary Emergency Generator - 110 and Fire Water Pump - 111)
Limitations, Monitoring, Recordkeeping and Reporting**

32. **Process Equipment Requirements - (Unit 110) - Limitations** - Emissions from the auxiliary emergency generator shall be controlled by a restriction on fuel oil usage and by good combustion operating practices.
(9 VAC 5-80-110 and Condition 8 of 11/12/13 Permit)
33. **Process Equipment Requirements - (Unit 110) - Limitations** - The approved fuel for the auxiliary emergency generator is No. 2 fuel oil. A change in this fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 22 of 11/12/13 Permit)
34. **Process Equipment Requirements - (Unit 110) - Limitations** - The maximum sulfur content of the No. 2 fuel oil to be burned in the auxiliary emergency generator shall not exceed 0.3 percent by weight. The permittee shall maintain records of all fuel oil shipments purchased. These records shall be made available on site for inspection by Department personnel. They shall be kept on file for the most current five-year period.
(9 VAC 5-80-110 and Condition 23 of 11/12/13 Permit)

35. **Process Equipment Requirements - (Unit 110) - Limitations** - The auxiliary emergency generator shall consume no more than 24,000 gallons of No. 2 fuel oil per year. The permittee shall maintain an operating log including the amount of No. 2 fuel oil burned in the auxiliary generator each day. The log shall be available on site for inspection by Department personnel, and shall be kept on file for the most current five-year period. (9 VAC 5-80-110 and Condition 12 of 11/12/13 Permit)

36. **Fuel Burning Equipment Requirements - (110) - Limitations** - Emissions from the operation of the auxiliary emergency generator shall not exceed the limits specified below:

| | lbs/10 ⁶ Btu | lbs/hr | tons/yr* |
|--|-------------------------|------------------------|------------------------|
| PM | 0.36 | 5.3 | 0.61 |
| PM-10 (total) | 0.36 | 5.3 | 0.61 |
| Sulfur Dioxide** | 0.30 | 4.4 | 0.5 |
| Nitrogen Oxides (as NO ₂) | 4.51 | 66.2 | 7.69 |
| Volatile Organic Compounds | 0.36 | 5.3 | 0.61 |
| Carbon Monoxide | 0.97 | 14.2 | 1.66 |
| Lead | 1.5 x 10 ⁻⁵ | 2.2 x 10 ⁻⁴ | 2.6 x 10 ⁻⁵ |

*tons/yr calculated monthly as the sum of each consecutive 12 month period.
 **SO₂ emissions are based on 0.3 percent sulfur (by weight) fuel.

(9 VAC 5-80-110, and Condition 16 of 11/12/13 Permit)

37. **Process Equipment Requirements - (Unit 110) - Monitoring** - The permittee shall install and maintain a non-resettable hour meter on the auxiliary emergency generator. (9 VAC 5-80-110)

38. **Fuel Burning Equipment Requirements - (Unit 110) - Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters for the auxiliary emergency generator necessary to demonstrate compliance with Conditions 32 through 37. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include:

- a. The annual consumption of distillate oil (in 1000 gallons). The annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period.

- b. The sulfur content per shipment of the No. 2 fuel oil burned.
- c. The pollutant-specific emission factors, “F” factor, and the equations used to determine compliance with emissions limits in Conditions 36.
- d. Fuel oil shipments required in Condition 34.
- e. Operating log as required in Condition 35.
- f. Observation log as required in Condition 53.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9 VAC 5-80-110 and Condition 30 of 11/12/13 Permit)

39. **Fuel Burning Equipment Requirements - (Unit 110) - Recordkeeping** - The permittee shall maintain records to demonstrate that the auxiliary emergency generator engine meets the definition of an “emergency stationary RICE” as stated in §63.6675, including the records stated in 63.6655(f). These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9 VAC 5-80-110)

40. **Fuel Burning Equipment Requirements - (110 and 111) - Limitations** - Visible emissions from the auxiliary emergency generator (Unit 110) stack and the fire water pump shall not exceed 10 percent opacity as would be determined by EPA Method 9 (ref. 40 CFR 60, Appendix. A). Monitoring for visible emissions shall be performed in accordance with Condition 53.

(9 VAC 5-80-110 and Condition 19 of 11/12/13 Permit)

41. **Fuel Burning Equipment Requirements – (Unit 111) - Limitations, Monitoring, Reporting and Recordkeeping** - The fire water pump shall be operated in compliance with requirements of 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, which include the following:

- a. The fire water pump is an “emergency stationary RICE” as defined per §63.6675 and shall be operated according to §63.6640(f);
- b. Applicable work practices requirements in Table 2c of Subpart ZZZZ per §63.6602;
- c. General requirements in §63.6605;
- d. Continuously comply with the work or management practices stated in Table 6 of Subpart ZZZZ per §63.6640;

- e. Operate and maintain the RICE per §63.6625(e)(2);
- f. Install a non-resettable hour meter per §63.6625(f);
- g. Monitor and collect data per §63.6635;
- h. Demonstrate continuous compliance by following requirements of §63.6640(a) and (b);
- i. Report deviations, as defined in Subpart ZZZZ, in the Title V semiannual report per §63.6650(f);
- j. Keep records required by §63.6655(a)(2), (d), (e)(2) and (f)(1), and in the format and time period per §63.6660; and
- k. Comply with the applicable requirements of the General Provisions provided in §§63.1 through 63.15 as identified in Table 8 of Subpart ZZZZ per §63.6665.

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

Ancillary Equipment Requirements - (Wood Handling Operation, Ash Handling Operation and Fuel Oil Storage Tanks)

Limitations

42. **Ancillary Equipment Requirements - (Wood Handling Operation) - Limitations -** Fugitive dust emissions from wood unloading, feeding, and conveying, shall be controlled by use of feedstock containing no sander dust, covered conveyors, enclosed transfer points, and use of a spray mist system as necessary to comply with the opacity limitations stated in Condition 43, below of this permit. Wood chipping operations shall be fully enclosed.
(9 VAC 5-80-110 and Condition 4 of 11/12/13 Permit)
43. **Ancillary Equipment Requirements - (Wood Handling and Ash Handling Operations) - Limitations -** Visible emissions from wood handling and ash handling emission points shall not exceed the following limits, with monitoring for visible emissions performed in accordance with Condition 53:

| | |
|------------------|--------------------|
| Transfer Points | 15 percent opacity |
| Fabric Filter | 5 percent opacity |
| All Other Points | 10 percent opacity |

(9 VAC 5-80-110 and Condition 19 of 11/12/13 Permit)

44. **Ancillary Equipment Requirements - (Wood Handling Operation) - Limitation -** Wood stockpiles shall be moistened or treated (wet suppression and surfactant) and the stockpile surfaces shall be kept moist or treated as necessary to comply with the opacity requirements contained in Condition 43 and to minimize emissions during storage and handling.
(9 VAC 5-80-110 and Condition 6 of 11/12/13 Permit)

45. **Ancillary Equipment Requirements - (Ash Handling Operation) - Limitations -** Particulate emissions from the ash handling operations listed below shall meet the emission limitations listed below. These values are included for modeling and emission inventory purposes. Compliance will be determined as stated in the opacity requirements contained in Condition 43.

| | |
|----------------------------------|------------------------------|
| Ash Silo Dust Collector | 2.90×10^{-3} lbs/hr |
| Ash Transfer to Unloading Trucks | 3.36×10^{-4} lbs/hr |

(9 VAC 5-80-110 and Condition 17 of 11/12/13 Permit)

46. **Ancillary Equipment Requirements - (Ash Handling Operation) - Limitation -** Particulate emissions from the ash storage silo (Unit 301) shall be controlled by a fabric filter with a rated efficiency of at least 99.9 percent. Fugitive dust from ash transfer to trucks shall be controlled by mixing the ash discharge with water.
(9 VAC 5-80-110 and Condition 5 of 11/12/13 Permit)

47. **Ancillary Equipment Requirements - (Fuel Oil Storage Tanks Units 121 and 122) - Limitation -** Volatile organic compound emissions from the No. 2 fuel oil storage tanks shall be controlled by the use of submerged or bottom fill loading and conservation vents.
(9 VAC 5-80-110 and Condition 10 of 11/12/13 Permit)

Recordkeeping

48. **Ancillary Equipment Requirements - (Wood Handling and Ash Handling Operations) - Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with Conditions 42 through 47 this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

a. Documentation that the No. 2 fuel oil storage tanks (Units 121 and 122) are equipped with submerged or bottom fill loading and conservation vents as required in Condition 47.

b. Observation log as required in Condition 53.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9 VAC 5-80-110 and Condition 30 of 11/12/13 Permit)

Facility Wide Conditions

Limitations

49. **Facility Wide Conditions - Limitation** - Visible emissions from all other emissions points (except those on the main boilers, transfer points and fabric/filter/baghouse) shall not exceed 10 percent opacity, with monitoring for visible emissions performed in accordance with Condition 53.
(9 VAC 5-80-110 and Condition 19 of 11/12/13 Permit)
50. **Facility Wide Conditions - Limitation** - Fugitive emissions from all external access roads shall be controlled by paving. Fugitive emissions from all paved facility roads shall be controlled through sweeping or roadway washing. Emissions from unpaved roads shall be controlled by wetting as necessary. If operating mechanical sweepers, water shall be used to suppress dust during operation.
(9 VAC 5-80-110 and Condition 9 of 11/12/13 Permit)
51. **Facility Wide Conditions - Limitation** - A physical barrier shall be installed at the property line that shall restrict public access to the property.
(9 VAC 5-80-110 and Condition 28 of 11/12/13 Permit)
52. **Facility Wide Conditions - Limitations** - At all times, including periods of startup, shutdown, soot blowing and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. In order to minimize the duration and frequency of emissions due to malfunctions of process equipment, air pollution control equipment or monitoring equipment, the permittee shall:
- a. Develop a maintenance schedule.
(Condition 27.a of 11/12/13 Permit)
 - b. Maintain an inventory of spare parts that are needed to minimize durations of such equipment breakdowns.
(Condition 27.b of 11/12/13 Permit)
 - c. Develop, maintain, and have available to all operators good written operating procedures for all air pollution control equipment. A maintenance schedule for all such equipment shall be established and made available to the Blue Ridge Regional Office for review.
(Condition 31 of 11/12/13 Permit)

(9 VAC 5-80-110 and 9 VAC 5-50-20 E)

Monitoring

53. **Facility Wide Conditions - Monitoring** - At least one time per week an observation of the presence of visible emissions from each transfer point, the flyash silo fabric filter and wood reclaim bin vent fans shall be made. Visible emission observations shall be conducted on the emergency generator stack and fire water pump stack during all readiness testing of these generating units. The presence of visible emissions from an emission point shall require the permittee to comply with either "a" or "b":
- a. Take timely corrective action such that the equipment resumes operation with no visible emissions, or;
 - b. Conduct a visible emission evaluation (VEE) on the affect emission unit in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the emission point or stack is less than the corresponding applicable allowable opacity limit stated below:
 - i. Transfer Points - 15 percent opacity per each point
 - ii. Flyash Silo Fabric Filter/baghouse - 5 percent opacity
 - iii. Wood Reclaim Bin Vent Fans, emergency diesel generator stack and fire water pump stack - 10 percent opacity per each point/stack

If any of the observations exceed the allowable opacity limit the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the unit resumes operation within the allowable opacity limit.

The permittee shall maintain an equipment observation log to demonstrate compliance. The log shall include the date and time of the observations, the name of the observer, and whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the equipment did not operate that week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110)

Recordkeeping

54. **Facility Wide Conditions - Recordkeeping** - The permittee shall maintain records necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Records of all emission data, operating parameters and process throughputs.
(Condition 30 of 11/12/13 Permit)

- b. Records of all scheduled and nonscheduled maintenance of process equipment, pollution control equipment and monitoring equipment.
 (Condition 27.a of 11/12/13 Permit)
- c. Observation log required in Condition 53.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

Testing

- 55. **Facility Wide Conditions - Testing** - The permitted facility shall be designed and constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
 (9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 29 of 11/12/13 Permit)
- 56. **Facility Wide Conditions - Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
 (9 VAC 5-80-110)

Insignificant Emission Units

- 57. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

| Emission Unit No. | Emission Unit Description | Citation | Pollutant(s) Emitted (9 VAC 5-80-720B) | Rated Capacity (9 VAC 5-80-720C) |
|--------------------------|---|--------------------|---|---|
| 501 | Solvent-based parts washer (non-halogenated) | 9 VAC 5-80-720 B.2 | VOC | - |
| 123 | Fuel Oil 200 gallons storage tank for the auxiliary emergency generator | 9 VAC 5-80-720 B.2 | VOC | - |
| 124 | Fuel Oil 550 gallon storage tank for diesel fire pump | 9 VAC 5-80-720 B.2 | VOC | - |

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

58. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

| Citation | Title of Citation | Description of Applicability |
|----------|-------------------|------------------------------|
| None | | |

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

General Conditions

59. **General Conditions - Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

60. **General Conditions - Permit Expiration** - This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

61. **General Conditions - Permit Expiration** - The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

62. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

63. **General Conditions - Permit Expiration** - No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
64. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
65. **General Conditions - Permit Expiration** - The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
66. **General Conditions -Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
- a. The date, place as defined in the 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 such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
- (9 VAC 5-80-110 F)

67. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

68. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - i. Exceedance of emissions limitations or operational restrictions;
 - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

69. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31;
- b. The identification of each term or condition of the permit that is the basis of the certification;
- c. The compliance status;
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
- f. Such other facts as the permit may require to determine the compliance status of the source; and
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

70. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Blue Ridge Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 68 of this permit.
(9 VAC 5-80-110 F.2, 9 VAC 5-80-250)

71. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Blue Ridge Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Blue Ridge Regional Office.
(9 VAC 5-20-180 C)
72. **General Conditions - Failure/Malfunction Reporting** - The emission units that have continuous monitors subject to 9 VAC 5-50-50 C are not subject to the 14 day written notification.
(9 VAC 5-20-180 C, 9 VAC 5-50-50)
73. **General Conditions - Failure/Malfunction Reporting** - The emission units subject to the reporting and the procedures of 9 VAC 5-50-50 C are listed below:
- a. The three spreader stoker wood-fired boilers (Units 101-103).
(9 VAC 5-20-180 C, 9 VAC 5-50-50)
74. **General Conditions – Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board semiannually. All semi-annual reports shall be postmarked by the 30th day following the end of each calendar semi-annual period (June 30th and January 30th). All reports shall include the following information:
- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.

(9 VAC 5-20-180 C and 9 VAC 5-50-50)

75. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)
76. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)
77. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)
78. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)
79. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

80. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
81. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)
82. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C and 9 VAC 5-80-2340 B)
83. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
(9 VAC 5-50-90)

84. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

85. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

86. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times 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 for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

87. **General Conditions - Reopening For Cause** - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:
- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
- (9 VAC 5-80-110 L)
88. **General Conditions - Permit Availability** - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)
89. **General Conditions - Transfer of Permits** - No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
90. **General Conditions - Transfer of Permits** - In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
91. **General Conditions - Transfer of Permits** - In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

92. **General Conditions - Malfunction as an Affirmative Defense** - A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements stated in Condition 93 are met.
(9 VAC 5-80-250)
93. **General Conditions - Malfunction as an Affirmative Defense** - The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
- a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
- (9 VAC 5-80-250)
94. **General Conditions - Malfunction as an Affirmative Defense** - In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9 VAC 5-80-250)
95. **General Conditions - Malfunction as an Affirmative Defense** - The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

96. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)
97. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)
98. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)
99. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)
100. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

101. **General Conditions - Emissions Trading** - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

Attachment A: Compliance Assurance Monitoring Plan

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| Emission Unit | Boilers (Units 101, 102, and 103) |
| Description | Three spreader stoker wood-fired boilers |
| Control Device | Multiclone followed by electrostatic precipitators |
| Applicable Requirement | 9 VAC 5-80-1800 |
| Regulated Pollutant | PM10 |
| Emission Limit | PM-10 - 0.02 lbs/10 ⁶ Btu and 7.47 lbs/hr each boiler |
| I. CAM Indicator | Opacity. |
| Measurement Approach | Continuous opacity monitor (COMS)v. |
| Monitoring Frequency | Continuous |
| Justification | COMS satisfies applicable monitoring requirements and performance specifications as specified in 40 CFR 64.3, "Special criteria for the use of continuous emission, opacity or predictive monitoring systems". |
| II. Indicator Range | Continuous operation between 0% - 10% opacity per hour. Excursion is one six-minute period > 10% opacity. |
| III. Performance Criteria | Location and installation of monitors is per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1). |
| Data Representativeness | |
| QA/QC Practices and Criteria | COMS was installed and evaluated in accordance with PS-1. Zero and span drift are checked daily and annual filter audits are performed in accordance with PS-1. |
| Data Collection Procedures | Data are collected by computerized data acquisition and handling system (DAHS). The system collects and retains all relevant opacity data. |
| Averaging period | Six-minute block basis. |

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| Regulated Pollutant | PM-10 |
| Emission Limit | PM-10 - 0.02 lbs/10 ⁶ Btu and 7.47 lbs/hr each boiler |
| I. CAM Indicator | Operational Status of Equipment |
| Measurement Approach | <p>Supplemental steps to be taken in the event an opacity excursion is observed:</p> <ul style="list-style-type: none"> • Check each precipitator for normal operation of all three fields in service, including the controls and ash handling • Check ash removal from the multiclone • Check for normal operation of the fly ash reinjection system • Check boiler outlet oxygen level • Check operational parameters that are inputs/outputs of the combustion control system (air flows, steam flow, damper positions, etc.) • Check fuel quality (moisture and/or sizing) • Check condition of the ash bed on the boiler grate • Check for operating activities that may be contributing to excess opacity such as grate blowing or soot blowing, boiler trips, etc. |
| Monitoring Frequency | As needed. |
| Justification | These steps are supplemental to the primary indicator of opacity and are taken to determine which of the three boilers may be causing an opacity excursion. |
| II. Indicator Range | Varies; these are work practices. |
| III. Performance Criteria | NA. COMS satisfy 40 CFR 64.3(b). |
| Data Representativeness | |
| QA/QC Practices and Criteria | NA |
| Data Collection Procedures | Events and corrective actions are logged as needed. |
| Averaging period | NA |