This permit is based upon Federal Clean Air Act acid rain permitting requirements of Title IV, federal operating permit requirements of Title V; and Chapter 80, Article 3 and Chapter 140 of the State Air Pollution Control Board 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, 9 VAC 5-80-360 through 9 VAC 5-80-700, and 9 VAC 5-140-10 through 9 VAC 5-140-900 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:

<table>
<thead>
<tr>
<th>Permittee Name:</th>
<th>Virginia Electric and Power Company</th>
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</thead>
<tbody>
<tr>
<td>Facility Name:</td>
<td>Virginia City Hybrid Energy Center</td>
</tr>
<tr>
<td>Facility Location:</td>
<td>3425 Russell Creek Road</td>
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<tr>
<td></td>
<td>St. Paul, Wise County, Virginia</td>
</tr>
<tr>
<td>VA Registration Number:</td>
<td>11526</td>
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<tr>
<td>Permit Number:</td>
<td>SWRO11526</td>
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This permit includes the following programs:

**Federally Enforceable Requirements - Clean Air Act (Sections I through VIII)**

**Federally Enforceable Requirements - Title IV Acid Rain (Section IX)**
Federally Enforceable Requirements – Clean Air Interstate Rule Requirements (Section X)

January 1, 2014
Effective Date

December 31, 2018
Expiration Date

Allen J. Newman, P.E.
Regional Director

Signature Date

Table of Contents, 2 pages
Permit Conditions, 68 pages
# Virginia City Hybrid Energy Center

## Permit Number: SWRO11526

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I. Facility Information

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

Facility
Virginia City Hybrid Energy Center
3425 Russell Creek Road
St. Paul, Virginia 24283

Responsible Official
O. Preston Sloane
Station Director

Contact Person
Cathy Taylor
Director, Electric Environmental Services
(804) 273-2929

Acid Rain and CAIR Trading Programs Designated Representative
Edward H. Baine
Vice President, Power Generation, System Operations

County-Plant Identification Number: 51-195-00210

ORIS Code: 56808

Facility Description: NAICS 221112 – Fossil Fuel Electric Power Generation

The Virginia City Hybrid Energy Center is an electric power generation facility. Electric power is generated using steam produced by two circulating fluidized bed (CFB) boilers, each with a maximum rated input heat capacity of 3,132 million Btu per hour (MMBtu/hr), which drives a single steam turbine generating unit. The CFB boilers are fueled with coal, coal refuse, coke-derived solid fuel and biomass (wood), which are combusted in a matrix of fuel and limestone, supported as a fluidized bed by the upward flow of combustion air. Ultra low sulfur distillate oil is used for boiler start-up. Other combustion units at the facility, each fired with ultra low sulfur distillate oil or ultra low sulfur diesel fuel, consist of an emergency generator engine with a maximum rated input heat capacity of 5.8 MMBtu/hr, and a fire-water pump engine with a maximum rated input heat capacity of 2.8 MMBtu/hr. An ultra low sulfur distillate oil-fired auxiliary boiler with a maximum rated input heat capacity of 190 MMBtu/hr is permitted for the facility. The auxiliary boiler has not been constructed by the issuance date of this permit.

Support operations at the facility include handling, processing, and storage of fuel, ash, activated carbon, limestone and lime.
II. Emission Units

Equipment to be operated consists of:

<table>
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<tr>
<th>Emission Unit ID</th>
<th>Stack ID</th>
<th>Emission Unit Description</th>
<th>Size/Rated Capacity*</th>
<th>Pollution Control Device Description (PCD)</th>
<th>PCD ID</th>
<th>Pollutant Controlled</th>
<th>Applicable Permit Date</th>
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<tbody>
<tr>
<td>CFB1</td>
<td>S1</td>
<td>Foster Wheeler circulating fluidized bed boiler</td>
<td>3,132 MMBtu/hr heat input capacity, (Nominal)</td>
<td>Foster Wheeler limestone injection, Allied flue gas desulfurization Lechler selective non-catalytic converter with ammonia injection Allied baghouse ADA activated carbon injection</td>
<td>CFB1-1, CFB1-2, CFB1-3, CFB1-4, CFB1-5</td>
<td>SO$_2$, HCl, HF, H$_2$SO$_4$, NOx, PM/PM-10/PM-2.5, Hg, Hg, VOC</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12), and MACT permit dated 6/30/08 (as amended 9/2/09 and 10/23/12)</td>
</tr>
<tr>
<td>CFB2</td>
<td>S2</td>
<td>Foster Wheeler circulating fluidized bed boiler</td>
<td>3,132 MMBtu/hr heat input capacity, (Nominal)</td>
<td>Foster Wheeler limestone injection, Allied flue gas desulfurization Lechler selective non-catalytic converter with ammonia injection Allied baghouse ADA activated carbon injection</td>
<td>CFB2-1, CFB2-2, CFB2-3, CFB2-4, CFB2-5</td>
<td>SO$_2$, HCl, HF, H$_2$SO$_4$, NOx, PM/PM-10/PM-2.5, Hg, Hg, VOC</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12), and MACT permit dated 6/30/08 (as amended 9/2/09 and 10/23/12)</td>
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<tr>
<td>AUX</td>
<td>AUXS</td>
<td>Auxiliary boiler (not constructed)</td>
<td>190 MMBtu/hr heat input capacity, (Nominal)</td>
<td>Low-NOx burners</td>
<td>AUX-1</td>
<td>NOx</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>EDG</td>
<td>EDGS</td>
<td>Cummins model QSK23-G7 NR2 emergency diesel generator, (2009)</td>
<td>1,220 brake horsepower/5.8 MMBtu/hr heat input capacity, (Nominal)</td>
<td>Miratech Corp/HUG Engineering selective catalytic converter</td>
<td>SCR1</td>
<td>NOx</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>EFP</td>
<td>S4</td>
<td>John Deere Clarke model JW6H-UFAD70 emergency fire pump, (2009)</td>
<td>376 brake horsepower/2.8 MMBtu/hr heat input capacity, (Nominal)</td>
<td>Ignition timing retard</td>
<td>N/A</td>
<td>NOx</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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</table>

**Material Receiving, Handling, Processing, and Storage Equipment**

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<tbody>
<tr>
<td>P1</td>
<td>-----</td>
<td>Automated coal reclaim system</td>
<td>1,500 tons/hr</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>P2</td>
<td>P2S</td>
<td>Coal crusher building: two Pennsylvania Crusher model SXCB227 reversible hammermills</td>
<td>750 tons/hr, each crusher</td>
<td>SLY baghouse</td>
<td>CBB</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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</tr>
<tr>
<td>P3</td>
<td>P3S</td>
<td>Coal/Limestone tripper: two cars (conveyor drop points to boiler silos)</td>
<td>750 tons/hr, each car</td>
<td>SLY baghouse</td>
<td>TBB</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<td>P4 &amp; P5</td>
<td>P4S &amp; P5S</td>
<td>Two fly ash silos</td>
<td>160 tons/hr, each silo</td>
<td>One Torit model 162MBT-10 baghouse, each silo</td>
<td>FAS1B &amp; FAS2B</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>P6</td>
<td>P6S &amp; P6Sa</td>
<td>Bed ash silo</td>
<td>160 tons/hr</td>
<td>Two Torit model 243MBT-10 baghouses</td>
<td>BASB1 &amp; BASB2</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<td>HLS-1 &amp; HLS-2</td>
<td>P7S &amp; P8S</td>
<td>Two hydrated lime silos</td>
<td>300 tons, each</td>
<td>One FLSmidth – Dust Collector #1 model 36TA8FM, each silo</td>
<td>HLSB-1 &amp; HLSB-2</td>
<td>PM/PM-10/PM-2.5</td>
<td>Article 6 permit dated 3/23/09</td>
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<td>ACS-1 &amp; ACS-2</td>
<td>P9S &amp; P10S</td>
<td>Two activated carbon silos</td>
<td>100 tons, each</td>
<td>One Torit model TBV-4 cartridge collector, each silo</td>
<td>ACISB-1 &amp; ACISB-2</td>
<td>PM/PM-10/PM-2.5</td>
<td>Article 6 permit dated 3/23/09</td>
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<td>FOM</td>
<td>-----</td>
<td>Fuel oil storage tank (above ground)</td>
<td>550,000 gallons</td>
<td>Conservation vent</td>
<td>N/A</td>
<td>VOC</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<td>-----</td>
<td>Coal truck unloading facility</td>
<td>1,500 tons/hr</td>
<td>Partial enclosure &amp; wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<td>MHCS</td>
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<td>Coal screens</td>
<td>1,500 tons/hr</td>
<td>Partial enclosure &amp; wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<td>Coal breaker</td>
<td>400 tons/hr</td>
<td>Partial enclosure &amp; wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
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<td>Coal stackers (stacking to storage pile)</td>
<td>1,500 tons/hr</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
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<td>MHRS</td>
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<td>Breaker reject storage silo</td>
<td>250 tons</td>
<td>Vent filter</td>
<td>-----</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>LTU</td>
<td>LTUS</td>
<td>Limestone truck unloading facility</td>
<td>325 tons/hr</td>
<td>Wheelabrator model 120 TA-SB Modular Jet 3 continuous automatic pulse type dust collector</td>
<td>LTUSB</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>MHLS</td>
<td>-----</td>
<td>Limestone stacking to storage piles</td>
<td>325 tons/hr</td>
<td>Enclosure</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>MHLR</td>
<td>-----</td>
<td>Limestone reclaim system</td>
<td>400 tons/hr</td>
<td>Enclosure</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>MHLC</td>
<td>-----</td>
<td>Six limestone crushers</td>
<td>20 tons/hr, each</td>
<td>Vented to CFB boilers</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
</tr>
<tr>
<td>MHBU</td>
<td>-----</td>
<td>Biomass truck unloading facility</td>
<td>300 tons/hr</td>
<td>Partial enclosure &amp; wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
</tr>
<tr>
<td>MHBR</td>
<td>-----</td>
<td>Biomass reclaim system</td>
<td>150 tons/hr</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>AHHT</td>
<td>-----</td>
<td>Ash hauling (trucks)</td>
<td>40 tons/truck</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
</tr>
<tr>
<td>AHAP</td>
<td>-----</td>
<td>Ash placement in Solid Waste</td>
<td>N/A</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>MHHR</td>
<td>-----</td>
<td>Facility haul roads</td>
<td>N/A</td>
<td>Wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>MHSP</td>
<td>-----</td>
<td>Storage pile activity</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
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<tr>
<td>AHSC</td>
<td>-----</td>
<td>Soil cover operation at the SWMF</td>
<td>N/A</td>
<td>Vegetative cover/wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
</tr>
<tr>
<td>MHTU</td>
<td>-----</td>
<td>Railcar coal unloading facility (not constructed)</td>
<td>1,500 tons/hr</td>
<td>Partial enclosure &amp; wet suppression</td>
<td>N/A</td>
<td>PM/PM-10/PM-2.5</td>
<td>PSD permit dated 6/30/08 (as amended 1/29/09, 5/24/11 and 10/23/12)</td>
</tr>
</tbody>
</table>

*The Size/Rated Capacity is provided for informational purposes only, and is not an applicable requirement.
III. Fuel Burning Equipment Requirements – Circulating Fluidized Bed Boilers (CFB1 and CFB2), Auxiliary Boiler (AUX), Emergency Generator Engine (EDG) and Emergency Fire Pump Engine (EFP)

A. Limitations

1. Particulate matter emissions and particulate hazardous air pollutant emissions from each CFB boiler shall be controlled by a fabric filter baghouse. Each fabric filter baghouse shall be provided with adequate access for inspection.
   (9 VAC 5-80-490 B & C, Condition 2 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 2 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

2. Sulfur dioxide and sulfuric acid mist emissions from the CFB boilers shall be controlled by limestone injection into each boiler and a flue gas desulfurization system for each boiler. Each limestone injection and flue gas desulfurization system shall be provided with adequate access for inspection. This condition applies at all times except during startup and shutdown of the CFB boilers.
   (9 VAC 5-80-490 B & C and Condition 3 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

3. Emissions of nitrogen oxides from the CFB boilers shall be controlled by selective non-catalytic reduction using ammonia injection for each boiler. Each selective non-catalytic reduction system shall be provided with adequate access for inspection. This condition applies at all times except during startup and shutdown of the CFB boilers.
   (9 VAC 5-80-490 B & C and Condition 4 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

4. Carbon monoxide and volatile organic compound emissions from the CFB boilers, auxiliary boiler, the emergency generator engine and the fire pump engine shall be controlled by good combustion practices. Each boiler and engine shall be provided with adequate access for inspection.
   (9 VAC 5-80-490 B & C and Condition 5 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

5. Emissions of nitrogen oxides from the auxiliary boiler shall be controlled by low-NOx burners. The low-NOx burners shall be provided with adequate access for inspection.
   (9 VAC 5-80-490 B & C and Condition 6 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
6. Emissions of nitrogen oxides from the emergency generator engine and the fire pump engine shall be controlled by ignition timing retard or an equivalent control technology or method, at a minimum. (9 VAC 5-80-490 B & C and Condition 7 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

7. Hydrogen chloride and hydrogen fluoride emissions from the CFB boilers shall be controlled by limestone injection into each boiler, a flue gas desulfurization system for each boiler, and a fabric filter baghouse for each boiler. Each limestone injection, flue gas desulfurization system and fabric filter baghouse shall be provided with adequate access for inspection. This condition applies at all times except during startup and shutdown of the CFB boilers. (9 VAC 5-80-490 B & C and Condition 3 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

8. Volatile organic hazardous air pollutant emissions from the CFB boilers shall be controlled by good combustion practices, an activated carbon injection system for each boiler and a fabric filter baghouse for each boiler. Each boiler, activated carbon injection system, and fabric filter baghouse shall be provided with adequate access for inspection. (9 VAC 5-80-490 B & C and Condition 4 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

9. Mercury emissions from the CFB boilers shall be controlled by a flue gas desulfurization system for each boiler, an activated carbon injection system for each boiler and a fabric filter baghouse for each boiler. Each flue gas desulfurization system, activated carbon injection system and fabric filter baghouse shall be provided with adequate access for inspection. (9 VAC 5-80-490 B & C, 40 CFR 63.43(g) and Condition 5 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

10. The auxiliary boiler shall not operate more than 4,000 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9 VAC 5-80-490 B & C and Condition 19 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

11. The permittee shall operate and maintain the emergency generator engine and fire pump engine and associated control devices in accordance with the manufacturer’s written instructions or procedures developed by the permittee that are approved by the engine manufacturer. The permittee
may only change those settings that are permitted by the manufacturer. The emergency generator engine and fire pump engine shall be certified to the emission standards in 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, National Fire Protection Association nameplate) engine power. Each engine must be installed and configured according to the manufacturer’s specifications, at a minimum. The permittee shall operate each engine that achieves the emission standards as required in 40 CFR 60.4205 over the entire life of the engine.

(9 VAC 5-80-490 B & C, 40 CFR 60.4206, 40 CFR 60.4211(a) and (c), and Condition 20 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

12. Operation of the emergency generator engine and fire pump engine for the purpose of maintenance checks and readiness testing shall not exceed 100 hours per year, each, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. If additional time is needed for maintenance checks and readiness testing, the permittee shall submit a written request for additional time to the Director, Southwest Regional Office prior to the additional operation. A written request is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency engines more than 100 hours per year. The engines shall not be operated more than 500 hours per year, each for any reason, including maintenance, testing and emergency purposes.

(9 VAC 5-80-490 B & C, 40 CFR 60.4211(f) and Condition 21 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

13. Heat input to each CFB boiler shall not exceed 27,436,320 x 10^6 Btu per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-490 B & C, Condition 22 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 7 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

14. The approved fuels for the CFB boilers are bituminous coal, coal refuse, coke-derived solid fuel, wood/bark, distillate oil and diesel fuel. The fuels shall meet the following specifications:
COAL, COAL REFUSE and COKE-DERIVED SOLID FUEL:
Maximum sulfur content as-fired: 2.28% as determined by ASTM D3177, D4239, or a DEQ-approved equivalent method.

COAL, COAL REFUSE and COKE-DERIVED SOLID FUEL:
Maximum annual average sulfur content: 1.5% calculated monthly as the average of the previous 12-month period using results from weekly sampling and analysis required in Condition III.B.1.

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.0015%

WOOD/BARK excluding any wood which contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates.

DIESEL FUEL which meets the ASTM D975 specification for numbers 1-D S15 or 2-D S15 diesel fuel:
Maximum sulfur content per shipment: 0.0015%

(9 VAC 5-80-490 B & C, Condition 23 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 8 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

15. In the event the permittee desires to burn waste coal, it shall present a plan to DEQ, in consultation with the Virginia Department of Mines, Minerals and Energy (DMME), for approval detailing the proposed pile or piles to be burned. The DEQ, in consultation with DMME, may approve, reject, or amend the plan, including requiring the permittee to burn or remove and store safely all coal from one or more piles. The DEQ shall not require through this approval process, the use of more waste coal than would otherwise be burned in the facility.

(9 VAC 5-80-490 B & C and Condition 24 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

16. After the first 36 months of commercial operation, the company shall use at least 5 percent biomass per year. Starting in the fifth year of commercial operation, the company shall increase the use of biomass by an additional 1 percent per year up to no less than 10 percent per year thereafter. For purposes of such biomass requirement, the percent shall be determined by
the total biomass heat input for any given year divided by the total heat input for any given year averaged over a rolling three years.

Should market conditions indicate that biomass fuel has a significant ratepayer impact or promotes tree cutting, such biomass requirement shall be reduced or eliminated until market conditions correct. Dominion shall retain an independent consultant to advise with such matters and shall obtain approvals for the elimination or reduction of the practice from DEQ. (9 VAC 5-80-490 B & C and Condition 26 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

17. The throughput of coal, coal refuse and coke-derived solid fuel to each CFB boiler shall not exceed 1,760,760 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9 VAC 5-80-490 B & C and Condition 10 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

18. The throughput of wood/bark to each CFB boiler shall not exceed 685,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9 VAC 5-80-490 B & C, Condition 27 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 11 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

19. The approved fuels for the emergency generator engine, fire pump engine and the auxiliary boiler are distillate oil and diesel fuel. The distillate oil shall meet the ASTM D396 specification for numbers 1 or 2 fuel oil except that the maximum sulfur content shall not exceed 0.0015 percent by weight per shipment. The diesel fuel shall meet the ASTM D975 specification for numbers 1-D S15 or 2-D S15 diesel fuel. A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-490 B & C, 40 CFR 60.4207(b) and Condition 28 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
20. Emissions from the operation of the CFB boilers shall not exceed the following limits:

<table>
<thead>
<tr>
<th></th>
<th>Each Boiler (lb/MMBtu)</th>
<th>Each Boiler (lb/hr)^a</th>
<th>Combined Total (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filterable Particulate Matter (PM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.010</td>
<td>31.32</td>
<td>246.92</td>
</tr>
<tr>
<td>30-day rolling average</td>
<td>0.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total PM-10 (filterable &amp; condensable)</td>
<td></td>
<td></td>
<td>329.24</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.012</td>
<td>37.58</td>
<td></td>
</tr>
<tr>
<td>Total PM-2.5 (filterable &amp; condensable)</td>
<td></td>
<td></td>
<td>329.24</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.012</td>
<td>37.58</td>
<td></td>
</tr>
<tr>
<td>Sulfur Dioxide b</td>
<td></td>
<td></td>
<td>603.6</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.035</td>
<td>109.62</td>
<td></td>
</tr>
<tr>
<td>24-hour average</td>
<td>0.029</td>
<td>90.83</td>
<td></td>
</tr>
<tr>
<td>30-day rolling average</td>
<td>0.022</td>
<td>0.21 lb/MWh (gross)</td>
<td></td>
</tr>
<tr>
<td>Nitrogen Oxides (as NO\textsubscript{2})</td>
<td></td>
<td></td>
<td>1,920.54</td>
</tr>
<tr>
<td>30-day rolling average</td>
<td>0.07 ^c</td>
<td>219.24</td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td></td>
<td></td>
<td>2,743.63</td>
</tr>
<tr>
<td>30-day rolling average</td>
<td>0.10 ^d</td>
<td>313.2</td>
<td></td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td></td>
<td></td>
<td>137.18</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.005</td>
<td>15.66</td>
<td></td>
</tr>
<tr>
<td>Sulfuric Acid Mist (H\textsubscript{2}SO\textsubscript{4})</td>
<td></td>
<td></td>
<td>96.03</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.0035</td>
<td>10.96</td>
<td></td>
</tr>
<tr>
<td>Hydrogen Fluoride</td>
<td></td>
<td></td>
<td>12.90</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.00047</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td></td>
<td></td>
<td>79.54</td>
</tr>
<tr>
<td>3-hour average</td>
<td>0.0029</td>
<td>9.08</td>
<td></td>
</tr>
<tr>
<td>Mercury ^e</td>
<td>0.000000088</td>
<td>(0.090 lb/TBtu equivalent)</td>
<td>0.009</td>
</tr>
</tbody>
</table>

^a Compliance with the lb/hr limit is based on the averaging period indicated in the appropriate row.
b Start-up is defined as the period beginning with initial firing of distillate oil and ending at 40 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. Shutdown is defined as the period beginning with the load decreasing from 40 percent and ending when the bed material fluidizing air has been discontinued. Emissions occurring during start-up and shutdown shall be monitored, recorded, reported and included in the calculation of the 24-hour rolling average, 30-day rolling average, and annual emission rates, but not the 3-hour rolling average.

c Emission limit applies at loads equal to or greater than 75 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The emission limit for loads less than 75 percent is the 30-day load-weighted average expressed by the formula below. The emission limit for loads equal to or greater than 75 percent is fixed at 0.07 lb/MMBtu, however, this limit is factored into the 30-day load-weighted average for loads less than 75 percent. The permittee shall calculate the 30-day weighted average emission limit for loads less than 75 percent using the following formula:

$$EL_{NOx \ 30d \ L} = \frac{\sum_{i=1}^{n} EL_i \times IR_i}{\sum_{i=1}^{n} IR_i}$$

where,

- $EL_{NOx \ 30d \ L}$ = 30-day weighted average nitrogen oxides emission limit; lb/MMBtu
- $EL_i$ = 0.07 lb/MMBtu for loads equal to or greater than 75 percent, 0.11 lb/MMBtu for loads equal to or greater than 50 percent but less than 75 percent, or 0.15 lb/MMBtu for loads less than 50 percent
- $IR_i$ = the heat input rate corresponding to the incremental CEMS reading; MMBtu
- $i$ = incremental CEMS reading having a non-zero heat input rate
- $n$ = the number of CEMS readings in the rolling 30-day period when there is a heat input rate in the load range

d Emission limit applies at loads equal to or greater than 75 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The emission limit for loads less than 75
percent is the 30-day load-weighted average expressed by the formula below. The emission limit for loads equal to or greater than 75 percent is fixed at 0.10 lb/MMBtu, however, this limit is factored into the 30-day load-weighted average for loads less than 75 percent. The permittee shall calculate the 30-day weighted average emission limit for loads less than 75 percent using the following formula:

\[
EL_{CO\,30d\,L} = \frac{\sum_{i=1}^{n} EL_{i} \times IR_{i}}{\sum_{i=1}^{n} IR_{i}}
\]

where,

- \( EL_{CO\,30d\,L} \) = 30-day weighted average carbon monoxide emission limit; lb/MMBtu
- \( EL_{i} \) = 0.10 lb/MMBtu for loads equal to or greater than 75 percent, or 0.20 lb/MMBtu for loads less than 75 percent
- \( IR_{i} \) = the heat input rate corresponding to the incremental CEMS reading; MMBtu
- \( i \) = incremental CEMS reading having a non-zero heat input rate
- \( n \) = the number of incremental CEMS readings in the rolling 30-day period when there is a heat input rate in the load range

Compliance with the emission limit shall be based on the total mercury emissions from each CFB boiler contributed by each fuel burned during the compliance period and total MWhr contributed by each fuel burned during the compliance period. The permittee shall calculate the mercury emission rate in lb/MWhr for each calendar month of the year, using hourly mercury concentrations measured in accordance with Condition III.B.5 and in conjunction with hourly stack gas volumetric flow rates measured in accordance with Condition III.B.4, and hourly gross electrical outputs, determined in accordance with Condition III.B.12. Compliance with the mercury emission limits shall be determined on a 12-month rolling average basis and using stack test data if stack testing is conducted during that month. Mercury emissions contributed by wood/bark and fuel oil combustion shall be calculated using emission factors or methods approved by the Director, Southwest Regional Office. Compliance with the applicable emission limit shall be determined on a 12-month rolling average basis.
Annual emissions are derived from the estimated overall emission contribution from operating limits including startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Annual emissions are calculated monthly as the sum of each consecutive 12-month period. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions III.A.1 – 4, III.A.7 – 9, III.A.13, III.A.14, III.A.17, III.A.18, III.A.24, III.B.3, III.B.5, III.B.6, III.B.15, III.B.16, III.D.3 and III.E.1.

(9 VAC 5-80-490 B & C, Condition 32 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 13 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

21. Emissions from the operation of the auxiliary boiler shall not exceed the following limits:

<table>
<thead>
<tr>
<th></th>
<th>lb/MMBtu</th>
<th>lb/hr</th>
<th>tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM-10</td>
<td>0.024</td>
<td>4.56</td>
<td>9.12</td>
</tr>
<tr>
<td>Total PM-2.5</td>
<td>0.024</td>
<td>4.56</td>
<td>9.12</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>0.202</td>
<td>38.38</td>
<td>76.76</td>
</tr>
<tr>
<td>Nitrogen Oxides (as NO₂)</td>
<td>0.12</td>
<td>22.80</td>
<td>45.60</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>0.040</td>
<td>7.60</td>
<td>15.20</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>0.004</td>
<td>0.76</td>
<td>1.52</td>
</tr>
</tbody>
</table>

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions III.A.4, III.A.5, III.A.10, III.A.19, III.A.24, III.B.7, III.B.8, III.B.14, III.D.1 and III.D.2.

(9 VAC 5-80-490 B & C and Condition 33 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

22. Emissions from the operation of the emergency generator engine shall not exceed the following limits:

<table>
<thead>
<tr>
<th></th>
<th>g/hp-hr</th>
<th>lb/hr</th>
<th>tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter/PM-10</td>
<td>0.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen Oxides (as NO₂)</td>
<td>2.6</td>
<td>5.73</td>
<td>1.43</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>2.6</td>
<td>5.73</td>
<td>1.43</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions III.A.4, III.A.6, III.A.11, III.A.12, III.A.19 and III.A.25.

(9 VAC 5-80-490 B & C, 40 CFR 60.4205(b), 40 CFR 60.4212(c) and Condition 34 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

23. Emissions from the operation of the fire pump engine shall not exceed the following limits:

<table>
<thead>
<tr>
<th></th>
<th>g/hp-hr</th>
<th>lb/hr</th>
<th>tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter/PM-10</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen Oxides plus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>4.8</td>
<td>12.70</td>
<td>3.17</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td></td>
<td>6.89</td>
<td>1.72</td>
</tr>
</tbody>
</table>

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions III.A.4, III.A.6, III.A.11, III.A.12, III.A.19 and III.A.25.

(9 VAC 5-80-490 B & C, 40 CFR 60.4205(c) and Condition 35 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

24. Visible emissions from the common exhaust stack with individual flues for the CFB boilers and auxiliary boiler shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B & C, Condition 42 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 14 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))
25. Visible emissions from the emergency generator engine exhaust stack and the fire pump engine exhaust stack shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B & C and Condition 43 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

26. The permittee shall comply with all applicable requirements contained in 40 CFR Part 63, Subpart A.

   a. In particular, for the CFB boilers, the permittee shall comply with the following applicable requirements of 40 CFR 63, Subpart A, related to startup, shutdown and malfunction as defined at 40 CFR 63.2:

      i. The permittee shall at all times, including periods of startup, shutdown, and malfunction as defined at 40 CFR 63.2, operate the CFB boilers and associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard(s) or comply with the applicable Startup, Shutdown and Malfunction Plan (Plan), as required below. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department and USEPA, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the Plan), review of operation and maintenance records, and inspection of the CFB boilers.

      ii. The permittee shall correct malfunctions as soon as practicable after their occurrence in accordance with the applicable Plan. To the extent that an unexpected event arises during a startup, shutdown or malfunction, the permittee shall comply by minimizing emissions during such a startup, shutdown and malfunction event consistent with safety and good air pollution control practices.

      iii. These operations and maintenance requirements, which are established pursuant to Section 112 of the Clean Air Act, are enforceable independent of applicable emissions limitations and other applicable requirements.

   b. The permittee shall develop, implement and maintain written Startup, Shutdown and Malfunction Plans (Plans) that describe, in detail, the plant during periods of startup, shutdown and malfunction and a program of corrective action for a malfunctioning process and air pollution control and monitoring equipment used to comply with the
relevant emission standards. These Plans shall be developed to satisfy the purposes set forth in 40 CFR 63.6(e)(3)(i)(A), (B) and (C).

i. During periods of startup, shutdown and malfunction of an emission unit, the permittee shall operate and maintain such unit, including associated air pollution control and monitoring equipment, in accordance with the procedures specified in the applicable Plan required in paragraph b of this condition.

ii. When actions taken by the permittee during startup, shutdown or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the applicable Plan, the permittee shall keep records for that event which demonstrate that the procedures specified in the Plan were followed. In addition, the permittee shall keep records of these events as specified in 40 CFR 63.10(b), including records of occurrence and duration of each startup, shutdown or malfunction and monitoring equipment. Furthermore, the permittee shall confirm in the periodic compliance report that actions taken during periods of startup, shutdown and malfunction were consistent with the applicable Plan, as required by 40 CFR 63.10(d)(5).

iii. If an action taken by the permittee during a startup, shutdown or malfunction (including an action taken to correct a malfunction) of an emission unit is not consistent with procedures specified in the applicable Plan, and the emission unit exceeds a relevant emission standard, then the permittee must record the actions taken for that event and must promptly report such actions as specified by 40 CFR 63.6(d)(5), unless otherwise specified elsewhere in this permit.

iv. The permittee shall make changes to the Plan for an emission unit if required by the Department or USEPA, as provided for by 40 CFR 63.6(e)(3)(vii), or as otherwise required by 40 CFR 63.6(e)(viii).

v. These Plans are records required by this permit, which the permittee must retain in accordance with the general requirements for retention and availability of records. In addition, when the permittee revises a Plan, the permittee must also retain and make available the previous version of the Plan for a period of at least 5 years after such revision.

(9 VAC 5-80-490 B & C, 40 CFR Part 63 Subpart A, and Condition 15 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))
(9 VAC 5-80-490 B & C and 40 CFR 63.9984(b))

28. The permittee shall follow the startup or shutdown requirements for coal-fired electric generating units indicated in Table 3 of 40 CFR Part 63, Subpart UUUUU. The permittee shall use either distillate oil or diesel fuel as specified in this permit during periods of startup or shutdown.
(9 VAC 5-80-490 B & C, 40 CFR 63.10000(a), 40 CFR 63.10005(j), 40 CFR 63.10011(f) & (g) and 40 CFR 63.10021(a))

B. Monitoring

1. The permittee shall sample and analyze the fuel as fired in each CFB boiler for mercury, fluorides, chlorides, sulfur and Btu content no less than once each calendar week using methods approved by the Director, Southwest Regional Office. Results of analyses shall be used in calculations to verify compliance with mercury, hydrogen fluoride, hydrogen chloride and sulfuric acid mist emission limits for the CFB boilers. A record of each analysis shall be maintained and shall include, at a minimum, content of each parameter, company and individual collecting the sample, identification of sampling method used, sample mass, number of samples, date sample collected, location of fuel when the sample was taken, date of analysis, company and individual conducting the analysis.
(9 VAC 5-80-490 E, Condition 25 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 9 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

2. The permittee shall obtain a certification from the fuel supplier with each shipment of coal, coal refuse, coke-derived solid fuel, wood/bark, distillate oil and diesel fuel. Each fuel supplier certification shall include the following:
   a. The name of the fuel supplier;
   b. The date on which the fuel was received;
   c. The quantity of fuel delivered in the shipment;
   d. A statement that the oil meets the ASTM D396 specification for fuel oil numbers 1 or 2, or ASTM D975 for diesel fuel numbers 1-D S15 or 2-D S15;
   e. The sulfur content of the fuel, excluding wood/bark;
f. Documentation of sampling of the fuel indicating the location of the fuel when the sample was taken; and

g. The methods used to determine the sulfur content of the fuel.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in this permit. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-490 F, Condition 29 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 12 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

3. The permittee shall install, calibrate, maintain, operate and record the output of continuous emission monitoring systems (CEMS) for measuring emissions of sulfur dioxide, nitrogen oxides and carbon monoxide from each CFB boiler, and either the oxygen or carbon dioxide content of the flue gases from each CFB boiler at each location where emissions of sulfur dioxide or nitrogen oxides are monitored. Each CEMS shall be installed, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR 60.13, 40 CFR 60.49Da(w)(1) through (w)(4), and DEQ approved procedures.

(9 VAC 5-80-490 E, 40 CFR 63.10000(c)(1)(v), 40 CFR 63.10007(a)(1), 40 CFR 63.10010(b) & (f)(1) – (4), 40 CFR 63.10020, Condition 46 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 16 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

4. The permittee shall install, calibrate, maintain, operate and record the output of continuous flow monitoring systems for measuring the volumetric flow rate of exhaust gases discharged to the atmosphere from each CFB boiler. Each flow monitoring system shall be installed, calibrated, maintained and operated in accordance with the applicable requirements of 40 CFR 60.13, 40 CFR 60.49Da(l) or (m), and DEQ approved procedures.

(9 VAC 5-80-490 E, 40 CFR 63.10007(a)(1), 40 CFR 63.10010(c), 40 CFR 63.10020, Condition 47 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 17 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

5. The permittee shall install, calibrate, maintain, operate a CEMS to measure and record the concentration of mercury in the exhaust gases from each CFB boiler, as follows:

a. The owner or operator must install, operate and maintain each CEMS according to Performance Specification 12A in appendix B of 40 CFR Part 60.
b. The owner or operator must conduct a performance evaluation of each CEMS according to the requirements of 40 CFR 60.13 and Performance Specification 12A in appendix B of 40 CFR Part 60.

c. The owner or operator must operate each CEMS in accordance with the following requirements:

   i. As specified in 40 CFR 60.13(e)(2), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period;

   ii. The owner or operator must reduce CEMS data as specified in 40 CFR 60.13(h);

   iii. The owner or operator shall use all valid data points collected during the hour to calculate the hourly average mercury concentration; and

   iv. The owner or operator must record the results of each required certification and quality assurance test of the CEMS.

d. Mercury CEMS data collection must conform to the following requirements:

   i. For each calendar month in which the affected unit operates, valid hourly mercury concentration data, stack gas volumetric flow rate data, moisture data (if required), and electrical output data (i.e., valid data for all of these parameters) shall be obtained for at least 75 percent of the unit operating hours in the month.

   ii. Data reported to meet the requirements of paragraph d.i of this condition shall not include hours of unit startup, shutdown or malfunction. In addition, data reported to meet the requirements of the Mercury Monitoring Provisions attached to this permit shall not include data substituted using the missing data procedures in 40 CFR part 75, subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR part 75.

   iii. If valid data are obtained for less than 75 percent of the unit operating hours in a month, you must discard the data collected in that month and replace the data with the mean of the individual monthly emission rate values determined in the last 12 months. In the 12-month rolling average calculation, this substitute Hg emission rate shall be weighted according to the number of unit operating hours in the month for which the data capture requirement of paragraph d.i of this condition was not met.

   iv. Notwithstanding the requirements of Condition III.A.26.a.iii., if valid data are obtained for less than 75 percent of the unit operating hours in another month in that same 12-month rolling average
cycle, discard the data collected in that month and replace the data with the highest individual monthly emission rate determined in the last 12 months. In the 12-month rolling average calculation, this substitute mercury emission rate shall be weighted according to the number of unit operating hours in the month for which the data capture requirement of paragraph d.i. of this condition was not met.

The requirement to install, calibrate, maintain and operate the mercury CEMS may be deferred upon written approval by DEQ in the event that the permittee makes an adequate demonstration that mercury CEMS are not reliable compliance indicators at the detection levels needed to demonstrate compliance with this permit. For any period during which installation and operation of mercury CEMS is deferred, the permittee shall install, certify, maintain and operate a sorbent trap monitoring system to measure the concentration of mercury in the exhaust gases from each CFB boiler, in accordance with 40 CFR Part 63, Subpart UUUUU, Appendix A and the Mercury Monitoring Provisions attached to this permit. The request to defer the mercury CEMS and install a sorbent trap monitoring system was approved by DEQ by letter dated April 21, 2009.

(9 VAC 5-80-490 E, 9 VAC 5-50-40, 40 CFR 63.10010(g), 40 CFR 63.10020, 40 CFR 63.10021(b), Condition 48 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 18 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

6. The permittee shall install, certify, maintain, operate and record the output of CEMS for measuring filterable PM emissions from each CFB boiler. Each CEMS shall be installed, certified, maintained and operated in accordance with the applicable requirements of 40 CFR 60.48Da(p) and 40 CFR 60.49Da(v), and DEQ approved procedures and shall reflect the level of technological advancement commensurate with the current state of technology in the industry.

(9 VAC 5-80-490 E, 40 CFR 63.10000(c)(1)(iv), 40 CFR 63.10007(a)(1), 40 CFR 63.10010(i)(1) – (5), 40 CFR 63.10020, Condition 49 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 19 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

7. The permittee shall install, calibrate, maintain, operate and record the output of CEMS for measuring emissions of nitrogen oxides and either carbon dioxide or oxygen from the auxiliary boiler. Each CEMS shall be installed, calibrated, maintained and operated in accordance with the applicable requirements of 40 CFR 60.48b(b) and (e), and DEQ approved procedures.

(9 VAC 5-80-490 E and Condition 50 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
8. The permittee shall monitor particulate matter emissions from the auxiliary boiler in accordance with either paragraph a. or b. of this condition.
   
a. Install, calibrate, maintain, operate and record the output of a COMS for measuring the opacity of emissions from the auxiliary boiler as discharged to the atmosphere, in accordance with 40 CFR 60.13.

b. Install, certify, maintain, operate and record the output of a CEMS for measuring CO emission from the auxiliary boiler as discharged to the atmosphere, in accordance with the procedures specified in 40 CFR 60.48b(j)(4)(i) through (iv).
   
(9 VAC 5-80-490 E and Condition 51 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

9. The permittee shall comply with the requirements in the approved unit specific monitoring plan for the CFB boilers and the auxiliary boiler. The plan shall address the following:
   
a. Installation of the CEMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of the exhaust emissions;
   
b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;
   
c. Performance evaluation procedures and acceptance criteria;
   
d. Ongoing operation and maintenance procedures, ongoing data quality assurance procedures and ongoing recordkeeping and reporting procedures in accordance with 40 CFR 60 Subpart Da, the general requirements of 40 CFR 60.13 or 40 CFR Part 75, and the Mercury Monitoring Provisions attached to this permit, as applicable.
   
(9 VAC 5-80-490 E and Condition 52 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

10. A CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B or F as applicable shall be implemented for all continuous monitoring systems except that Relative Accuracy Test Audits (RATA’s) may be required less frequently if approved by DEQ.
   
(9 VAC 5-80-490 E, 40 CFR 63.10007(a), Condition 54 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 21 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

11. The permittee shall install, calibrate, maintain and operate the following:
    
a. A meter measuring gross electrical output of the facility in megawatt hours (MWh); and
b. A meter measuring steam production for each CFB boiler.

Steam production measurements shall be used to allocate gross electrical output to each CFB boiler. Each meter shall be operated and the output recorded on a continuous basis. Each meter shall be provided with adequate access for inspection.

(9 VAC 5-80-490 E, Condition 55 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 22 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

12. The permittee shall install, calibrate, maintain and continuously operate in accordance with the manufacturer’s recommendations a non-resettable hour meter to record the hours of operation of the emergency generator engine and fire pump engine.

(9 VAC 5-80-490 E, 9 VAC 5-170-160, 40 CFR 60.4209(a) and Condition 56 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

13. The permittee shall install, calibrate, maintain and operate a system for monitoring the throughput of each type of fuel to each CFB boiler and of fuel oil to the auxiliary boiler. Each monitoring system shall be installed, calibrated and maintained in accordance with the manufacturer’s recommendations at a minimum and shall be provided with adequate access for inspection.

(9 VAC 5-80-490 E, 40 CFR 63.43(g), Condition 57 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 23 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

14. The average nitrogen oxides emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit of 0.07 lb/MMBtu applicable at loads equal to or greater than 75 percent of maximum. The permittee shall calculate the average nitrogen oxides emission rate for each CFB boiler using all valid CEMS values measured at loads of 75 percent or greater for each rolling 30-day period using the following formula:

\[
ER_{NOx\ 30d\ H} = \frac{n}{\sum_{i=1}^{n} ER_i}
\]

where,

- \( ER_{NOx\ 30d\ H} \) = 30-day average nitrogen oxides emission rate, for the load range of 75 percent and greater; lb/MMBtu;
- \( ER_i \) = the incremental CEMS-measured nitrogen oxides emission rate at loads 75 percent and greater; lb/MMBtu;
i = incremental CEMS reading;

n = the number of incremental CEMS readings in the rolling 30-day period when the heat input rate was in the load range of 75 percent and greater.

The 30-day load weighted average nitrogen oxides emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit calculated in accordance with Condition III.A.20, for loads less than 75 percent of maximum. The permittee shall calculate the 30-day load weighted average nitrogen oxides emission rate for each CFB boiler using all valid CEMS values measured at all loads greater than zero using the following formula:

$$\text{ER}_{\text{NOx 30d L}} = \frac{\sum_{i=1}^{n} \text{ER}_i \times \text{IR}_i}{\sum_{i=1}^{n} \text{IR}_i}$$

where,

- $\text{ER}_{\text{NOx 30d L}}$ = 30-day weighted average nitrogen oxides emission rate; lb/MMBtu;
- $\text{ER}_i$ = the incremental hour’s CEMS-measured nitrogen oxides emission rate; lb/MMBtu;
- $\text{IR}_i$ = the heat input rate corresponding to the incremental CEMS reading; MMBtu;
- $i =$ incremental CEMS reading having a non-zero heat input rate;
- $n =$ the number of incremental CEMS readings in the rolling 30-day period when there is a heat input rate.

Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The requirements of this condition shall not limit the validity or use of other methods of compliance determination as may be required in this permit or approved by DEQ.

(9 VAC 5-80-490 E and Condition 66 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

15. The average carbon monoxide emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit of 0.10 lb/MMBtu applicable at loads equal to or greater than 75 percent of maximum. The permittee shall calculate the average carbon monoxide emission rate for
each CFB boiler using all valid CEMS values measured at loads of 75 percent or greater for each rolling 30-day period using the following formula:

\[
ER_{CO\ 30d\ H} = \frac{\sum ER_i}{n}
\]

where,

\( ER_{CO\ 30d\ H} \) = 30-day average carbon monoxide emission rate, for the load range of 75 percent and greater; lb/MMBtu

\( ER_i \) = the incremental CEMS-measured carbon monoxide emission rate at loads of 75 percent and greater; lb/MMBtu

\( i \) = incremental CEMS reading

\( n \) = the number of incremental CEMS readings in the rolling 30-day period when the heat input rate was in the load range of 75 percent and greater

The 30-day load weighted average carbon monoxide emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit calculated in accordance with Condition III.A.20, for loads less than 75 percent of maximum. The permittee shall calculate the 30-day load weighted average carbon monoxide emission rate for each CFB boiler using all valid CEMS values measured at all loads greater than zero using the following formula:

\[
ER_{CO\ 30d\ L} = \frac{\sum ER_i \times IR_i}{\sum IR_i}
\]

where,

\( ER_{CO\ 30d\ L} \) = 30-day weighted average carbon monoxide emission rate; lb/MMBtu

\( ER_i \) = the incremental hour’s CEMS-measured carbon monoxide emission rate; lb/MMBtu

\( IR_i \) = the heat input rate corresponding to the incremental CEMS reading; MMBtu

\( i \) = incremental CEMS reading having a non-zero heat input rate
n = the number of incremental CEMS readings in the rolling 30-day period when there is a heat input rate

Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The requirements of this condition shall not limit the validity or use of other methods of compliance determination as may be required in this permit or approved by DEQ.

(9 VAC 5-80-490 E and Condition 28 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

16. The permittee shall conduct a performance tune-up according to 40 CFR 63.10021(e) of each CFB boiler burner and combustion controls. For each CFB boiler not employing neural network combustion optimization during normal operation, each performance tune-up must be no more than 36 calendar months after the previous performance tune-up. For each CFB boiler employing neural network combustion optimization systems during normal operation, each performance tune-up must be no more than 48 calendar months after the previous performance tune-up. As part of the initial compliance demonstration, a tune-up may occur prior to April 16, 2012, so that existing sources without neural networks have up to 42 calendar months or, in the case of units employing neural network combustion controls, up to 54 calendar months after the date specified for existing sources in 40 CFR 63.9984.

(9 VAC 5-80-490 E, 40 CFR 63.9991(a)(1), 40 CFR 63.10000(e), 40 CFR 63.10005(e) & (f), 40 CFR 63.10006(i) and 40 CFR 63.10021(a) & (e))

C. Recordkeeping

1. 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 Director, Southwest Regional Office. These records shall include, but are not limited to:

a. Monthly and annual hours of operation of the auxiliary boiler, the emergency generator engine and the fire pump engine. Annual hours of operation shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to individual monthly totals for the preceding 11 months.

b. Monthly and annual heat input to each CFB boiler. Annual heat input shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently
completed calendar month to individual monthly totals for the preceding 11 months.

c. Monthly and annual throughput of each type of fuel and limestone to each CFB boiler. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

d. Emissions calculations, based on data from fuel analyses, stack tests and CEMS, for each CFB boiler and the auxiliary boiler using calculation methods approved by the Director, Southwest Regional Office, to verify compliance with the applicable emission limits.

e. Nitrogen oxides and carbon monoxide emission limit calculations in accordance with Condition III.A.20.

f. Nitrogen oxides and carbon monoxide emission rate calculations in accordance with Conditions III.B.15 and III.B.16, respectively.

g. Daily throughput of fuel oil to the auxiliary boiler.

h. All fuel supplier certifications.

i. Results of each as-fired fuel sample analysis.

j. Annual sulfur content of coal, coal refuse and coke-derived solid fuel determined on a 12-month rolling average basis using results from weekly sampling and analysis required in Condition III.B.1.

k. Annual capacity factor for the auxiliary boiler determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

l. Information required in each Excess Emission Report and continuous monitoring system Semi-Annual Report as required in this permit.

m. Gross electrical output, in MWh, for the facility and steam production for each CFB boiler.

n. Continuous monitoring system calibrations and calibration checks, percent operating time, excess emissions, and adjustments and maintenance performed on continuous monitoring systems and devices.

o. Results of all stack tests, visible emission evaluations and performance evaluations.
These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-490 F, 40 CFR 63.43(g), 9 VAC 5-50-50, 9 VAC 5-50-410, 40 CFR 63.10032, 40 CFR 63.10033, Condition 70 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12), and Condition 29 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

D. Testing

1. Initial performance tests shall be conducted for sulfur dioxide, nitrogen oxides, PM-10, PM-2.5, carbon monoxide and volatile organic compounds from the auxiliary boiler exhaust flue to determine compliance with the emission limits contained in Condition III.A.21. The test methods to be used are the following USEPA reference methods, except that equivalent test methods may be substituted upon request, if approved by the Director, Southwest Regional Office, as equivalent and allowable by applicable regulations:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM-10</td>
<td>EPA Methods 201A and 202</td>
</tr>
<tr>
<td>Condensable PM-10</td>
<td>EPA Method 202</td>
</tr>
<tr>
<td>Total PM-2.5</td>
<td>EPA Methods 201A and 202</td>
</tr>
<tr>
<td>Condensable PM-2.5</td>
<td>EPA Method 202</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>EPA Method 6</td>
</tr>
<tr>
<td>Nitrogen Oxides</td>
<td>EPA Method 7</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>EPA Method 10</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>EPA Methods 25A</td>
</tr>
</tbody>
</table>

The tests shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Southwest 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 Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-490 E & F and Condition 60 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

2. Concurrently with the initial performance tests, visible emission evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted by the permittee on the exhaust stack for the auxiliary boiler. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The evaluation shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Southwest Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. After the initial VEE, compliance with the applicable opacity limits for the auxiliary boiler shall be monitored using COMS data.

(9 VAC 5-80-490 E & F, Condition 61 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

3. Annually and upon request by the DEQ, the permittee shall conduct performance tests for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, PM-10, PM-2.5, volatile organic compounds, mercury, sulfuric acid mist, hydrogen chloride and hydrogen fluoride from each CFB boiler exhaust to demonstrate compliance with the emission limits contained in this permit. In a calendar year when a relative accuracy test audit (RATA) is conducted on a CEMS, then a stack test for the pollutant monitored by that CEMS is not required. The details of the tests shall be arranged with the Director, Southwest Regional Office. In addition to performance tests, continuous compliance with emission standards and permit limits shall be determined by CEMS data.

(9 VAC 5-80-490 E & F, 40 CFR 63.10007(a)(1) & (2), (b), (d), & (e), Condition 65 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 26 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))
E. Reporting

1. The permittee shall submit written reports to the Director, Southwest Regional Office of excess emissions from any process monitored by a continuous monitoring system (COMS/CEMS) on a quarterly basis, postmarked by the 30th day following the end of the calendar quarter. The permittee may submit the reports in electronic format as approved by DEQ. Each report shall include the following information, at a minimum:
   a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, 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 process, the nature and cause of the 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;
   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 that report.

(9 VAC 5-80-490 F, Condition 58 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 24 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

2. The permittee shall submit written reports to the Director, Southwest Regional Office for each continuous monitoring system on a semi-annual basis, postmarked by the 30th day following the end of each six-month period. The permittee may submit the reports in electronic format as approved by DEQ. Reports submitted in electronic format shall be submitted on a quarterly basis. Each report, written or electronic, shall include the following, at a minimum:
   a. Company name and address;
   b. Date of report and beginning and ending dates of the reporting period;
   c. A signed statement indicating whether:
      i. The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified;
ii. The data used to show compliance was or was not obtained in accordance with approved methods and procedures and is representative of plant performance;

iii. The minimum data requirements have or have not been met; or, the minimum data requirements have or have not been met for errors that were unavoidable. If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the information indicated in 40 CFR 60.51Da(c) shall be submitted; and

iv. Compliance with the standards has or has not been achieved during the reporting period.

d. With regard to particulate matter, carbon monoxide, sulfur dioxide and nitrogen oxides emissions and emissions monitoring for the CFB boilers:

i. The average particulate matter, carbon monoxide, sulfur dioxide and nitrogen oxide emission rates in lb/MMBtu for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for noncompliance with the standard; and, description of corrective actions taken;

ii. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions;

iii. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NOx only), emergency conditions (SO2), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions;

iv. Identification of the “F” factor used in calculations, method of determination, and type of fuel combusted;

v. Identification of times when hourly averages have been obtained based on manual sampling methods;

vi. Identification of any times when the pollutant concentration exceeded the full span of the continuous emissions monitor;

vii. Description of any modifications to the continuous emissions monitors which could effect the ability of the CEMS to comply with the performance specifications under 40 CFR 60, Appendices B and F;
viii. Summary of the results of daily continuous emissions monitor drift tests and quarterly and annual accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1; and

ix. For any periods for which emissions data are not obtained, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and the affected boiler during periods of data unavailability are to be compared with operation of the control system and the affected boiler before and following the period of data unavailability.

e. With regard to mercury emissions and emissions monitoring for the CFB boilers:

i. The number of unit operating hours for each month in the reporting period;

ii. The number of unit operating hours with valid data for mercury concentration, stack gas flow rate, moisture (if required), and electrical output for each month in the reporting period;

iii. The monthly mercury emission rate for each month in the reporting period;

iv. The number of hours of valid data excluded from the calculation of the monthly mercury emission rate, due to unit startup, shutdown and malfunction for each month in the reporting period;

v. The 12-month rolling average mercury emission rate in lbs/year for each month in the reporting period;

vi. The data assessment report required by 40 CFR Part 60, Appendix F or an equivalent summary of QA test results if the QA of 40 CFR Part 75 are implemented;

vii. The applicable mercury emission limit; and

viii. The monthly average ppmv mercury content of coal burned, the monthly average Btu value of coal burned, and the mercury emission rate in both lbs/month and lbs/MW-hr for each month in the reporting period.

f. With regard to nitrogen oxides emissions and emissions monitoring for the auxiliary boiler:

i. The average hourly nitrogen oxides emission rates (expressed as NO₂) measured or predicted;

ii. The 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the
measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

iii. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards with reasons for such excess emissions as well as a description of corrective actions taken;

iv. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

v. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

vi. Identification of the “F” factor used for calculations, method of determination, and type of fuel combusted;

vii. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system;

viii. Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with applicable performance specifications; and

ix. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1.

g. A certification that only very low sulfur oil that meets the definition in 40 CFR 60.41b, at a minimum, was combusted in the auxiliary boiler during the reporting period.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the following address:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029
(9 VAC 5-80-490 F, Condition 59 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 25 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))
3. The permittee shall furnish written notification to the Director, Southwest Regional Office of:
   a. The anticipated date of continuous monitoring system performance evaluations postmarked not less than 30 days prior to such date.
   b. The anticipated date of performance tests of the electric power generating equipment postmarked at least 30 days prior to such date.

Copies of the written notifications referenced in this condition are to be sent to:
   Associate Director
   Office of Air Enforcement (3AP40)
   U.S. Environmental Protection Agency
   Region III
   1650 Arch Street
   Philadelphia, PA 19103-2029

(9 VAC 5-80-490 F, 40 CFR 63.10030(d), Condition 71 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12) and Condition 30 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

4. The permittee shall submit to the Director, Southwest Regional Office, each report specified in 40 CFR Part 63, Subpart UUUUU that applies to the CFB boilers, which includes, but is not limited to, the following:
   a. Mercury emissions reports required under Appendix A to Subpart UUUUU at the specified frequency.
   b. Compliance reports on a semiannual basis according to the requirements in 40 CFR 63.10031(b). Each compliance report shall include the following, at a minimum:
      i. The information required by the summary report located in 40 CFR 63.10(e)(3)(vi);
      ii. The total fuel use by each CFB boiler, for each calendar month within the semiannual reporting period, including but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure;
      iii. Indicate whether new types of fuel were burned during the reporting period. If new types of fuel were burned, include the date of the performance test where that fuel was in use;
      iv. Include the date of the most recent tune-up for each CFB boiler. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled unit shutdown;
v. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to the CFB boilers under 40 CFR Part 63, Subpart UUUUU and there are no deviations from the requirements for work practice standards in Table 3 of Subpart UUUUU applicable to the CFB boilers, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CEMS for particulate matter and sulfur dioxide and the mercury sorbent trap monitoring systems were out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the monitoring systems were out-of-control during the reporting period;

vi. If there is a deviation from any emission limitation (emission limit and operating limit) or work practice standard that applies to the CFB boilers under 40 CFR Part 63, Subpart UUUUU during the reporting period, the report must contain the information in 40 CFR 63.10031(d). If there were periods during which CEMS for particulate matter or sulfur dioxide or the mercury sorbent trap monitoring systems were out-of-control, as specified in 40 CFR 63.8(c)(7), the report must contain the information in 40 CFR 63.10031(e); and

vii. If there is a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

c. Performance test results.

The required reports shall include activities and periods of startup and shutdown, if applicable. A copy of each report shall be submitted to the U.S. Environmental Protection Agency in electronic or written format, as required, in accordance with the provisions of 40 CFR 63.63.10031(f). (9 VAC 5-80-490 F, 40 CFR 63.10021(f), (g) and (l), and 40 CFR 63.100031(a) – (d))

IV. Process Equipment Requirements – Material Receiving, Handling, Processing and Storage Equipment

A. Limitations

1. Particulate matter emissions from unloading coal, coal refuse, coke-derived solid fuel and wood/bark delivered to the facility shall be controlled by partially enclosed unloading facilities and wet suppression. The unloading
facilities and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 8 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

2. Particulate matter emissions from coal screens and coal breakers shall be controlled by partial enclosures and wet suppression. The screens, breakers, enclosures and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 9 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

3. Particulate matter emissions from conveyor transfers shall be controlled by wet suppression or equivalent, at a minimum. The conveyor transfers and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 10 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

4. Particulate matter emissions from truck loading facilities for ash and coal breaker reject material shall be controlled by partial enclosures and wet suppression. Ash shall be wetted by a pug mill prior to discharge from storage silos or loaded into tanker trucks through enclosed transfer systems. Air displaced from tanker trucks shall be vented back into the storage silos. The loading facilities, wet suppression systems, pug mills and enclosed transfer systems shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 11 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

5. Particulate matter emissions from coal crushing shall be controlled by a fabric filter baghouse. Each crusher and fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 12 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

6. Particulate matter emissions from limestone crushing and drying shall be vented to the CFB boilers. Each crusher shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 13 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

7. Particulate matter emissions from handling, transfer and storage of fuel and limestone at the boiler house shall be controlled by the tripper building
fabric filter baghouse. The fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 14 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

8. Particulate matter emissions from the limestone unloading facility and each storage silo shall be controlled by fabric filter baghouses. Each fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 15 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

9. Particulate matter emissions from pneumatic loading of the hydrated lime and activated carbon storage silos shall be controlled by fabric filters on the silo exhaust vents. The fabric filters shall be provided with adequate access for inspection and shall be in operation when the respective silo is being loaded.
(9 VAC 5-80-490 C and Condition 2 of 3/23/09 Article 6 Permit)

10. Fugitive dust and fugitive emission controls shall include the following, or equivalent, as approved by DEQ:
   a. Equipment for conveying or transporting coal, coal refuse, coke-derived solid fuel, wood/bark or limestone shall be covered or enclosed. Ash shall be conveyed between boiler systems, control devices and storage silos through enclosed mechanical or pneumatic transfer systems.
   b. The loading of coal, coal refuse and coke-derived solid fuel onto storage piles shall be through stackers with telescoping chutes.
   c. All material being stockpiled shall be kept adequately moist using water or surfactant to control dust during storage and handling or covered at all times to minimize emissions.
   d. Dust from haul roads, traffic areas and construction operations shall be controlled by the application of asphalt, water or suitable chemicals.
(9 VAC 5-80-490 C and Condition 16 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

11. Volatile organic compound emissions from the distillate oil storage tank, emission unit ID: FOM, shall be controlled by a conservation vent. The conservation vent shall be provided with adequate access for inspection.
(9 VAC 5-80-490 C and Condition 17 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

12. Emissions from the limestone unloading facility baghouse exhaust shall not exceed the following limits:
Filterable Particulate Matter (PM)  0.005 gr/dscf  1.88 tons/yr
Total PM-10            0.38 lb/hr    1.66 tons/yr
Total PM-2.5           0.38 lb/hr    1.66 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.8 and IV.A.19.
(9 VAC 5-80-490 B and Condition 36 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

13. Emissions from the crusher building baghouse exhaust shall not exceed the following limits:
Filterable Particulate Matter (PM)  0.005 gr/dscf  2.72 tons/yr
Total PM-10            0.55 lb/hr    2.41 tons/yr
Total PM-2.5           0.55 lb/hr    2.41 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.5 and IV.A.19.
(9 VAC 5-80-490 B and Condition 37 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

14. Emissions from the tripper building baghouse exhaust shall not exceed the following limits:
Filterable Particulate Matter (PM)  0.005 gr/dscf  1.14 tons/yr
Total PM-10            0.23 lb/hr    1.01 tons/yr
Total PM-2.5           0.23 lb/hr    1.01 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.7 and IV.A.19.
(9 VAC 5-80-490 B and Condition 38 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
15. Emissions from each fly ash silo baghouse exhaust shall not exceed the following limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Description</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filterable Particulate Matter (PM)</td>
<td>0.005 gr/dscf</td>
<td>1.45 tons/yr</td>
</tr>
<tr>
<td>Total PM-10</td>
<td>0.29 lb/hr</td>
<td>1.27 tons/yr</td>
</tr>
<tr>
<td>Total PM-2.5</td>
<td>0.29 lb/hr</td>
<td>1.27 tons/yr</td>
</tr>
</tbody>
</table>

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.8 and IV.A.19.

(9 VAC 5-80-490 B and Condition 39 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

16. Total emissions from the bed ash silo baghouse exhausts shall not exceed the following limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Description</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filterable Particulate Matter (PM)</td>
<td>0.005 gr/dscf</td>
<td>3.11 tons/yr</td>
</tr>
<tr>
<td>Total PM-10</td>
<td>0.63 lb/hr</td>
<td>2.76 tons/yr</td>
</tr>
<tr>
<td>Total PM-2.5</td>
<td>0.63 lb/hr</td>
<td>2.76 tons/yr</td>
</tr>
</tbody>
</table>

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.8 and IV.A.19.

(9 VAC 5-80-490 B and Condition 40 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

17. Total fugitive emissions from the operation of the material handling equipment shall not exceed the following limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Description</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM)</td>
<td>22.98 lb/hr</td>
<td>29.44 tons/yr</td>
</tr>
<tr>
<td>Total PM-10</td>
<td>6.22 lb/hr</td>
<td>7.80 tons/yr</td>
</tr>
</tbody>
</table>

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions IV.A.1 – 4, IV.A.10, IV.A.20, IV.D.4, IV.D.5 and 6.

(9 VAC 5-80-490 B and Condition 41 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
18. Emissions from the operation of the hydrated lime and activated carbon storage silos shall not exceed the following limits:

- Filterable Particulate Matter (PM) 0.005 gr/dscf
  
  0.80 tons/yr combined total

- PM-10
  
  0.05 lb/hr each hydrated lime silo
  
  0.03 lb/hr each activated carbon silo
  
  0.72 tons/yr combined total

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Condition IV.A.21.

(9 VAC 5-80-490 B and Condition 4 of 3/23/09 Article 6 Permit)

19. Visible emissions from each material handling fabric filter baghouse exhaust shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B and Condition 44 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

20. Visible emissions from each loading and unloading facility, coal screen and breaker enclosure, conveyor transfer, stockpile and any other material handling, processing and storage equipment shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B, 40 CFR 60.254(b)(1), 9 VAC 5-50-410 and Condition 45 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

21. Visible emissions from each of the hydrated lime and activated carbon storage silos shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-490 B and Condition 5 of 3/23/09 Article 6 Permit)

22. Fugitive emissions from limestone handling and processing equipment without capture systems and fugitive emissions escaping capture systems shall not exceed 7 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B, 40 CFR 60.672(b) and 9 VAC 5-50-410)
23. Fugitive emissions from the boiler building and the limestone unloading facility shall not exceed 7 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-490 B, 40 CFR 60.672(e)(1) and 9 VAC 5-50-410)

B. Monitoring

1. The permittee shall visually observe all wood fuel processing, conveying and transfer equipment at least once each calendar week to determine the presence of visible emissions while operating (does not include condensed water vapor/steam). If during the observation, visible emissions are observed that appear to exceed five percent opacity, a visible emission evaluation (VEE) shall be conducted on the affected unit in accordance with 40 CFR 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If during the six minutes, any readings exceed 10 percent opacity, the VEE shall be conducted for a total of 60 minutes. A Method 9 VEE shall not be required if the visible emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. A record of each visible emissions observation shall be maintained, including, at a minimum, the date, time, name of the emission unit, the applicable emission requirement, the results of the observation and the name of the observer. A record of each VEE shall be maintained and shall include, at a minimum, any data required by the 40 CFR 60, Appendix A, Method 9.

(9 VAC 5-80-490 E)

2. The permittee shall conduct monthly visual observations of all coal truck dump processes and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(9 VAC 5-80-490 E, 40 CFR 60.255(h)(2) and 9 VAC 5-50-410)

3. The permittee shall visually observe each hydrated lime and activated carbon storage silo exhaust at least once each calendar week while product is being transferred to the silos to determine the presence of visible emissions while operating (does not include condensed water vapor/steam). If during the observation, visible emissions are observed, a visible emission evaluation (VEE) shall be conducted on the affected unit in accordance with 40 CFR 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If during the six minutes, any readings exceed 5 percent opacity, the VEE shall be conducted for a total of 60 minutes. A Method 9 VEE shall not be required if the visible
emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. A record of each visible emissions observation shall be maintained, including, at a minimum, the date, time, name of the emission unit, the applicable emission requirement, the results of the observation and the name of the observer. A record of each VEE shall be maintained and shall include, at a minimum, any data required by the 40 CFR 60, Appendix A, Method 9. 
(9 VAC 5-80-490 E)

4. The permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression systems controlling emissions from limestone processing and handling equipment. The permittee shall initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the permittee finds water is not flowing properly during an inspection of the water spray nozzles. The permittee shall record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b).
(9 VAC 5-80-490 E, 40 CFR 60.674(b) and 9 VAC 5-50-410)

5. Compliance Assurance Monitoring (CAM) - The permittee shall monitor, operate, calibrate and maintain the fabric filter baghouses controlling the coal crusher building, tripper building, limestone truck unloading facility, the fly ash silos and bed ash silo according to the following:
Coal Crusher Building, Tripper Building, Limestone Truck Unloading Facility, Fly Ash Silos and Bed Ash Silo Compliance Assurance Monitoring Plan

<table>
<thead>
<tr>
<th>Indicator No. 1</th>
<th>Indicator No. 2</th>
<th>Indicator No. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Indicator</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Measurement Approach</td>
<td>The permittee shall install calibrate, maintain and operate a device for measuring the pressure drop across each affected baghouse.</td>
<td>The permittee shall conduct Reference Method 22-like visible emission observations for the presence of visible emissions from each affected baghouse monthly, at minimum.</td>
</tr>
<tr>
<td><strong>II. Indicator Range</strong></td>
<td>An excursion is defined as a pressure drop outside of the following indicator ranges: Limestone Unloading: 1 – 15 inches of water column; Coal Crusher Building: 1 – 8 inches of water column; Tripper Building: 1 – 6 inches of water column; Bed Ash Silo: 1 – 4 inches of water column; and Fly Ash Silos (2): 0.5 – 3 inches of water column. Upon detecting an excursion, the permittee shall initiate corrective action within 24 hours to return the affected baghouse and/or emissions unit to normal operation.</td>
<td>An excursion is defined as the presence of visible emissions. Upon detecting an excursion, the permittee shall initiate corrective action within 24 hours to return the affected baghouse and/or emissions unit to normal operation.</td>
</tr>
<tr>
<td><strong>III. Performance Criteria</strong></td>
<td>Pressure measurement devices shall be installed at the inlet and outlet of each affected baghouse. The accuracy of each device shall be commensurate with the current state of technology in the industry.</td>
<td>Visible emission observations are conducted at the baghouse exhaust.</td>
</tr>
<tr>
<td>A. Data Representativeness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Verification of</td>
<td>Pressure gauges and alarms shall be</td>
<td>N/A</td>
</tr>
</tbody>
</table>
## Virginia City Hybrid Energy Center

Permit Number: SWRO11526
Effective Date: January 1, 2014

### Indicator No. 1 Indicator No. 2 Indicator No. 3

<table>
<thead>
<tr>
<th>I. Indicator</th>
<th>Baghouse Differential Pressure</th>
<th>Opacity</th>
<th>Internal Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Status</td>
<td>installed to indicate operational status of each affected baghouse.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| C. QA/QC Practices and Criteria | Each monitoring device shall be calibrated annually, at a minimum, or more frequently in accordance with manufacturer's specifications. | The observer shall be familiar with Reference Method 22 and follow Method 22-like procedures. | Trained personnel shall perform inspections and maintenance. |

<table>
<thead>
<tr>
<th>D. Monitoring Frequency</th>
<th>Continuously</th>
<th>Monthly</th>
<th>Annually</th>
</tr>
</thead>
</table>

| E. Data Collection Procedures | Pressure drop of each affected baghouse shall be manually recorded each day in an operator log. Data Control System shall automatically record a reading once per hour. | Results of each observation shall be recorded and maintained on site. | Results of inspections and maintenance shall be recorded and maintained on site. |

| F. Averaging Period | None. | In accordance with Reference Method | N/A |
6. 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 5-80-490 E and 40 CFR 64.6 (c))

7. 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 5-80-490 E and 40 CFR 64.7 (b))

8. 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 coal crusher building, tripper building, limestone truck unloading facility, fly ash silos or bed ash silo is 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 5-80-490 E and 40 CFR 64.7 (c))

9. Compliance Assurance Monitoring (CAM) - Upon detecting an excursion or exceedance, the permittee shall restore operation of the coal crusher building, tripper building, limestone truck unloading facility, fly ash silos or bed ash silo (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 5-80-490 E and 40 CFR 64.7 (d)(1))

10. 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 5-80-490 E and 40 CFR 64.7(d)(2))

11. 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 Director, Southwest Regional Office and, if necessary, submit a proposed modification to this permit 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 5-80-490 E and 40 CFR 64.7(e))

12. Compliance Assurance Monitoring (CAM) - If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the coal crusher building, tripper building, limestone truck unloading facility, fly ash silos or bed ash silo 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. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
   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 5-80-490 E and 40 CFR 64.8(a) and (b))

C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

   a. Monthly and annual amounts of each type fuel and limestone delivered to the facility. Annual amounts shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to individual monthly totals for the preceding 11 months.

   b. Dimensions of the distillate oil storage tank, emission unit ID: FOM, and an analysis showing the capacity of the storage vessel.

   c. Results of all stack tests, visible emission evaluations and performance evaluations.

   d. A written or electronic logbook for coal processing and handling operations in accordance with 40 CFR 60.258(a).

   e. A written or electronic logbook for limestone processing and handling operations in accordance with 40 CFR 60.676(b).

   These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-490 F, 40 CFR 60.258(a), 40 CFR 60.676(b), 9 VAC 5-50-410, Condition 70 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12), and Condition 29 pf 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12))

2. 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 5-80-490 E and 40 CFR 64.9(b))
D. Testing

1. The permittee shall repeat the performance test for particulate matter from the coal crusher building and tripper building baghouse exhausts as follows:
   a. Within 12 calendar months of the date that the previous performance test was required to be completed if the results of the most recent performance test demonstrate that emissions from the affected facility are greater than 50 percent of the applicable emission standard; or
   b. Within 24 calendar months of the date that the previous performance test was required to be completed if the results of the most recent performance test demonstrate that emissions from the affected facility are 50 percent or less of the applicable emission standard.
   c. The tripper building is exempt from the requirements of paragraphs a. and b. of this condition provided all of the following requirements are met:
      i. Particulate emissions from the tripper building baghouse exhaust, as determined by the most recent performance test, are less than or equal to the applicable limit;
      ii. The control device manufacturer’s recommended maintenance procedures are followed; and
      iii. All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit or the monitoring requirements in 40 CFR 60.255(f) are followed.

   Each test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Southwest 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 Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
   (9 VAC 5-80-490 E & F, 40 CFR 60.255(b)(1), 40 CFR 60.255(d) and 9 VAC 5-50-410)

2. Except as provided for in 40 CFR 60.255(f) and (g), the permittee shall conduct a visible emission evaluation on the coal crusher building baghouse exhaust, the tripper building baghouse exhaust and each piece of coal processing and conveying equipment, coal storage system, and each coal transfer and loading system as follows:
a. Within 90 operating days of the date that the previous performance test was required to be completed if any six minute average opacity reading in the most recent VEE exceeds half the applicable opacity limit; or

b. Within 12 calendar months of the date that the previous VEE was required to be completed if all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit.

Each test shall consist of ten sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. If, during the initial 30 minutes of the observation, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes. The details of the test are to be arranged with the Director, Southwest Regional Office. Two copies of the test results shall be submitted to the Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-490 E & F, 40 CFR 60.255(b)(2) and 9 VAC 5-50-410)

3. Visible emission evaluations in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on each coal truck dumping operation. Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position. Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events. The details of each test are to be arranged with the Director, Southwest Regional Office. Two copies of each test result shall be submitted to the Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. The permittee shall repeat the visible emission evaluation on each coal truck dumping operation at least once every 5 calendar years in accordance with this condition.

(9 VAC 5-80-490 E & F, 40 CFR 60.255(h)(1) and (3), and 9 VAC 5-50-410)

E. Reporting

1. The permittee shall submit reports pertaining to coal preparation and processing operations to the Director, Southwest Regional Office in accordance with 40 CFR 60.258(b) and (c), as follows:
a. On a semiannual basis, all 6-minute average opacities that exceed the applicable standard.

b. Results of initial performance tests.

Within 60-days of completing each performance evaluation, test data shall be submitted to the United States Environmental Protection Agency electronically and in accordance with 40 CFR 60.258(d).

(9 VAC 5-80-490 E, 40 CFR 60.258(b), (c) and (d) and 9 VAC 5-50-50)

2. 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 C.3 of this permit to the Director, Southwest 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 5-80-490 E and 40 CFR 64.9(a))

V. Facility-Wide Conditions

A. Limitations

1. The permittee shall convert the Bremo Power Station to natural gas within two years of commencement of commercial operation of the Virginia City Hybrid Energy Center, subject to Virginia State Corporation Commission approval.

(9 VAC 5-80-490 B and Condition 30 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
2. Except where this permit is more restrictive than the applicable requirement, equipment subject to new source performance standards shall be operated in compliance with the requirements of 40 CFR 60, Subpart Da, Subpart Db, Subpart Y, Subpart III and Subpart OOO, as applicable. (9 VAC 5-80-490 B and Condition 31 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

3. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
   b. Maintain an inventory of spare parts.
   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer’s recommendations, at a minimum.
   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-490 B, Condition 76 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12), Condition 34 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12), and Condition 11 of 3/23/09 Article 6 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall conduct an ambient air quality analysis of the emissions of PM-2.5 from the facility within 180 days after USEPA promulgates final rules for PM-2.5 analysis, USEPA promulgates revised implementation guidance or policy for PM-2.5 analysis, or DEQ establishes a more appropriate implementation methodology for PM-2.5, or as may be directed by the Director, Southwest Regional Office.
(9 VAC 5-80-490 E and Condition 68 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))
2. The permittee shall upon normal operation of the facility (i.e. control of the loading of the generator is turned over to the Independent System Operator, PJM) commence ambient air quality monitoring of PM-2.5, PM-10, and sulfur dioxide. The permittee shall conduct the air quality monitoring for at least one year after normal operation of the facility is achieved. All monitoring and associated tasks shall conform to, at a minimum, the applicable requirements of 40 CFR Parts 50, 53, and 58, and any other requirements specified by DEQ. (9 VAC 5-80-490 E and Condition 69 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12))

3. The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to scheduled and unscheduled maintenance and operator training. These records shall be available for inspection by the DEQ and shall be current for the most recent five years. (9 VAC 5-80-490 F, Condition 70 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12), Condition 29 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12), and On-Site Records Condition of 3/23/09 Article 6 Permit)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided. (9 VAC 5-80-490 E & F, Condition 18 of 6/30/08 PSD Permit (as amended 1/29/09, 5/24/11 and 10/23/12), Condition 6 of 6/30/08 MACT Permit (as amended 9/2/09 and 10/23/12), and Condition 3 of 3/23/09 Article 6 Permit)

VI. 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:
<table>
<thead>
<tr>
<th>Emission Unit No.</th>
<th>Emission Unit Description</th>
<th>Citation</th>
<th>Pollutant(s) Emitted (if applicable to 9 VAC 5-80-720 B)</th>
<th>Rated Capacity (if applicable to 9 VAC 5-80-720 C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS-2</td>
<td>Lube oil/use oil/hydraulic oil systems</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>17,120 gallons</td>
</tr>
<tr>
<td>IS-5</td>
<td>Oil/Water separator</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>28,685 gallons</td>
</tr>
<tr>
<td>IS-6</td>
<td>Degreaser</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>N/A</td>
</tr>
<tr>
<td>IS-7</td>
<td>Antifreeze usage on coal conveyors</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>N/A</td>
</tr>
<tr>
<td>IS-8</td>
<td>Water treatment chemicals</td>
<td>9 VAC 5-80-720 B</td>
<td>Sodium hypochlorite, caustic, sulfuric acid, amines, ammonia</td>
<td>6,600 (approx.)</td>
</tr>
<tr>
<td>IS-9</td>
<td>Ammonia storage</td>
<td>9 VAC 5-80-720 B</td>
<td>Ammonia</td>
<td>60,000 gallons each – 2 tanks</td>
</tr>
<tr>
<td>IS-10</td>
<td>Generator diesel day tank</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>150 gallons</td>
</tr>
<tr>
<td>IS-11</td>
<td>Fire pump diesel tank</td>
<td>9 VAC 5-80-720 B</td>
<td>VOC</td>
<td>460 gallons</td>
</tr>
<tr>
<td>IS-12</td>
<td>Welding shop</td>
<td>9 VAC 5-80-720 B</td>
<td>PM</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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, monitoring, recordkeeping and reporting shall not be required for these emission units in accordance with 9 VAC 5-80-490 C, E, and F.

**VII. 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:
Nothing in this permit 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 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 5-80-500)

VIII. General Conditions

A. 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 5-80-490 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the effective date of the permit. Unless the owner submits a timely and complete renewal application to DEQ consistent with 9 VAC 5-80-430, the right of the facility to operate shall terminate upon permit expiration.

1. 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.

2. 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 3, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-510.
3. 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 5-80-430 for a renewal permit, except in compliance with a permit issued under Article 3, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-430 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 5-80-500, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-430 shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-430 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 5-80-430 B, C and F, 9 VAC 5-80-490 D and 9 VAC 5-80-530 B)

C. Recordkeeping and Reporting

1. 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.
   f. The operating conditions existing at the time of sampling or measurement. (9 VAC 5-80-490 F)

2. 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 5-80-490 F)

3. 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 5-80-430 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.
   b. All deviations from permit requirements. For purposes 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 5-80-490 F)

D. 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. 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. This certification shall be signed by a responsible official, consistent with VAC 5-80-430 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.

6. Such other facts as the permit may require to determine the compliance status of the source.

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 5-80-490 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Southwest 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 General Condition VIII.C.3. of this permit.

(9 VAC 5-80-490 F.2)

F. Failure/Malfunction Reporting

1. 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 discovery, notify the Director, Southwest Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14-days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. 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. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Southwest Regional Office. 
(9 VAC 5-20-180 C)

2. Each owner required to install a continuous monitoring system 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 emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and 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.

(9 VAC 5-20-180 C, 9 VAC 5-40-50 and 9 VAC 5-50-50)
G. 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 5-80-490 G.1)

H. 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 grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
(9 VAC 5-80-490 G.2)

I. 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 5-80-490 G.3)

J. 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 5-80-550 and 9 VAC 5-80-660)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-490 G.5)

L. Duty to Submit Information

1. 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 5-80-490 G.6)

2. 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 and 9 VAC 5-80-430 G. (9 VAC 5-80-490 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-360 through 9 VAC 5-80-700 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 et seq. 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. (9 VAC 5-80-490 H)

N. 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:

1. 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;

2. 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;

3. 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 other similar operations;
4. 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

5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90 and 9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, 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 and 9 VAC 5-80-490)

P. 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 5-80-500 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 3.

(9 VAC 5-80-490 J)

Q. 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:

1. 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.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-490 K.2)

R. 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 or more years. Such a reopening shall be completed not 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 5-80-430 F.

1. 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.

2. 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.

3. 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 5-80-490 D.

(9 VAC 5-80-490 L)

S. 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 5-80-510 G)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another or from one piece of equipment to another.
2. 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 5-80-560.

3. 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 5-80-560.

(9 VAC 5-80-520)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. 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 5-80-490 F.2.b to promptly report deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

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

(9 VAC 5-80-650)

V. 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 3. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-490 G & L, 9 VAC 5-80-640 and 9 VAC 5-80-660)

W. 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 submits 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 5-80-430 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance 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)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for
(9 VAC 5-60-70 and 9 VAC 5-80-490 A)

Z. 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 under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. 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 5-80-490 I)

BB. 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:

1. All terms and conditions required under 9 VAC 5-80-490, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-360 through 9 VAC 5-80-700.
(9 VAC 5-80-490 I)

IX. Title IV Permit Allowances and Requirements

Phase II Permit - The attached Phase II permit is incorporated into this permit by reference. The owners and operators of the source shall comply with the standard requirements and special provisions set forth in the application.
(9 VAC 5-80-440 and 9 VAC 5-80-490 A.4.a and c, B, C, E, F, M, O and P)
X. Clean Air Interstate Rule (CAIR) Requirements

The permittee shall comply with all applicable CAIR requirements (9 VAC 5-140-1010 et seq., 9 VAC 5-140-2010 et seq., 9 VAC 5-140-3010 et seq., 9 VAC 5-140-5010 et seq., and 40 CFR Part 96) by the compliance date in the respective Part of 9 VAC 5 Chapter 140, as contained in the CAIR Permit. The CAIR Permit is attached to this document and expires upon expiration of this Title V operating permit.
(9 VAC 5-80-490, 40 CFR Part 96 and 9 VAC 5 Chapter 140)
Phase II Permit
CAIR Permit
CLEAN AIR INTERSTATE RULE (CAIR) PERMIT

Issued To: Virginia City Hybrid Energy Center
Operated By: Virginia Electric and Power Company
Location: St. Paul, Wise County, Virginia
Registration No: 11526
ORIS Code: 56808

Permit Requirements:
The permittee shall comply with all applicable Clean Air Interstate Rule (CAIR) requirements (9 VAC 5-140-1010 et seq., 9 VAC 5-140-2010 et seq., 9 VAC 5-140-3010 et seq., and 40 CFR Part 96) by the compliance date in the respective Part of 9 VAC 5 Chapter 140, as contained in the CAIR Permit Application. This CAIR Permit is incorporated into the Title V permit for this facility and shall be in effect for the same time period as the Title V Permit.
(9 VAC 5-80-490, 40 CFR Part 96 and 9 VAC 5 Chapter 140)

Allen J. Newman, P.E.
Regional Director

The CAIR permit consists of this page and the attached CAIR permit application dated March 23, 2009, and amendment information dated June 27, 2013.