Commonwealth of Virginia
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800
www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

Richard C. Doucette, CPG
Regional Director

March 12, 2024

Mr. Tony Coburn
Plant Manager
Potomac Energy Center, LLC
20260 Energy Park Drive
Leesburg, VA 20175

Location: Loudoun County
Registration No.: 73826

Dear Mr. Coburn:

Attached is an initial combined Article 3 permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning April 1, 2024.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on March 9, 2022 and solicited written public comments by placing a newspaper advertisement in the Loudoun Times-Mirror Newspaper on February 9, 2024. The thirty-day required comment period, provided for in 9VAC5-80-670 expired on March 11, 2024.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Potomac Energy Center, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

To review any federal rules referenced in the attached permit, the US Government Publishing Office maintains the text of these rules at https://www.ecfr.gov/.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with

the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

Director
Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the regional office at (703) 583-3800.

Sincerely,

Justin A. Wilkinson
Regional Air Permit Manager

JAW/AMS/73826_05 Combined Article 3 permit.docx

Attachment: Permit

cc: EPA, Region III,
Northern Regional Air Compliance Inspector

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Article 3
Federal Operating Permit

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 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, 9VAC5-80-360 through 9VAC5-80-700 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

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

Permittee Name:	Potomac Energy Center, LLC
Facility Name:	Potomac Energy Center, LLC
Facility Location:	20260 Energy Park Drive Leesburg, VA
Registration Number:	73826
Permit Number:	NRO-73826

This permit includes the following programs: Federally Enforceable Requirements - Clean Air Act, Title IV Acid Rain Program, Cross State Air Pollution Control Rule (CSAPR).

April 1, 2024
Effective Date

March 31, 2029
Expiration Date

Regional Air Permit Manager Signature

March 12, 2024
Signature Date

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Facility Information

Permittee
Potomac Energy Center, LLC
20260 Energy Park Drive
Leesburg, VA 20175

Responsible Official
Mr. James Ryan
Authorized Signatory

Acid Rain Designated Representative
Mr. James Ryan
Authorized Signatory

Facility
Potomac Energy Center, LLC
20260 Energy Park Drive
Leesburg, VA 20175

Contact Person
Ms. Patricia Wilson
Environmental Health & Safety Compliance Manager
(703) 779-4106

State-County-Plant Identification Number: 51-107-01019
ORIS Code: 59004

Facility Description: NAICS 221112 – Fossil fuel electric power generation facility. The facility is a nominal 802 MW net combined-cycle electrical power generating facility utilizing two combustion turbines each with a duct-fired heat recovery steam generator (HRSG) with a common reheat condensing steam turbine generator (2 on 1 configuration). The fuel for the turbines and duct burners is pipeline-quality natural gas. A natural gas-fired auxiliary boiler, one natural gas-fired fuel gas heater, a cooling tower, an emergency diesel fire water pump, an emergency diesel generator, and five electrical circuit breakers are constructed and permitted at this source.

Emission Units

Process equipment to be operated consists of

Primary Equipment

Emission Unit ID	Emission Unit Description (date of construction)	Nominal Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
CT1	Siemens SGT6-5000F5 natural gas-fired combustion turbine generator (2015)	2,554 MMBtu/hr	Selective Catalytic Reduction Oxidation Catalyst	SCR-1 OXCat-1	NOx CO, VOC	March 9, 2022
CT2	Siemens SGT6-5000F5 natural gas-fired combustion turbine (2015)	2,554 MMBtu/hr	Selective Catalytic Reduction Oxidation Catalyst	SCR-1 OXCat-1	NOx CO, VOC	March 9, 2022
DB1	John Zink Hamworthy HRSG w/natural gas-fired duct burner (2015)	430 MMBtu/hr	Selective Catalytic Reduction Oxidation Catalyst	SCR-1 OXCat-1	NOx CO, VOC	March 9, 2022
DB2	John Zink Hamworthy HRSG w/natural gas-fired duct burner (2015)	430 MMBtu/hr	Selective Catalytic Reduction Oxidation Catalyst	SCR-1 OXCat-1	NOx CO, VOC	March 9, 2022

Ancillary Equipment

Emission Unit ID	Emission Unit Description (date of construction)	Nominal Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
AB1	Natural gas-fired auxiliary boiler (2015)	23.2 MMBtu/hr	ultra-low NOx burner, Natcom /Nebraska NB-100D-40	None	NOx	March 9, 2022
FG1	Gas Tech Engineering natural gas-fired fuel gas heater (2015)	Two burners, 8.8 MMBtu/hr each	two ultra-low NOx burners, Honeywell Maxon XPO5EB4-4N-Y	None	NOx	March 9, 2022
EG1	Caterpillar CAT C32 ATAAC emergency diesel engine generator (2015)	10.07 MMBtu/hr 1474 bhp 1000 ekW	None	None	None	March 9, 2022

Emission Unit ID	Emission Unit Description (date of construction)	Nominal Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EFP1	Clark JU6H-UFAD88 emergency diesel fire water pump (2015)	1.68 MMBtu/hr 237 bhp	None	None	None	March 9, 2022
MCT1 thru MCT10	One 10-Cell Mechanical Draft Cooling Tower (2015)	148,000 gal/minute	None	None	None	March 9, 2022
CB1	Five Electrical Circuit Breakers (2015)	2,000 lb SF_6	None	None	None	March 9, 2022

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

Fuel Burning Equipment Requirements - Combustion turbines and duct-fired HRSGs

(CT1, CT2, DB1, DB2)

Limitations

1. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – Emission Controls:**

   a. Oxides of nitrogen (NO_x) emissions from each combustion turbine (CT1, CT2) and each heat recovery steam generator (HRSG) duct burner (DB1, DB2) shall be controlled by dry, low-NO_x combustion with selective catalytic reduction (SCR) control system with ammonia injection. The SCR system shall be provided with adequate access for inspection and shall be in operation when the combustion turbines and duct burners are operating, at all times except during start up and shutdown, as defined in Condition 6.a.

   b. Carbon monoxide (CO) and volatile organic compound (VOC) emissions from each combustion turbine (CT1, CT2) and each heat recovery steam generator (HRSG) duct burner (DB1, DB2) shall be controlled by an oxidation catalyst and combustion practices as recommended by the equipment manufacturer. The oxidation catalyst shall be provided with adequate access for inspection and shall be in operation when the combustion turbines and duct burners are operating, at all times except during start up and shutdown, as defined in Condition 6.a.

   c. Particulate Matter (PM_{10}, $PM_{2.5}$) emissions from each combustion turbine (CT1, CT2) and each heat recovery steam generator (HRSG) duct burner (DB1, DB2) shall be controlled by combustion practices as recommended by the equipment manufacturer, and the use of pipeline quality natural gas, as defined in 40 CFR §72.2.

   d. Greenhouse gas emissions (including carbon dioxide, methane, and nitrous oxide), as CO_2e from the combined cycle gas turbine generators (CT1, CT2) and associated heat recovery steam generator (HRSG) duct burner (DB1, DB2) shall be controlled by combustion practices as recommended by the equipment manufacturer, and use of pipeline natural gas, as defined in 40 CFR § 72.2. The combined cycle gas turbine generators and associated HRSG duct burners shall operate at a Higher Heating Value (HHV) heat rate, at full load and corrected to ISO conditions, not to exceed 7,340 Btu HHV/kWh gross output without duct burning and 7,780 Btu HHV/kWh gross output with duct burning. Compliance with this limit shall be demonstrated as contained in Condition 28.

   (9VAC5-80-490 and Condition 2 of the March 9, 2022 Permit)

2. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – Fuel** - The approved fuel for each combustion turbine and HRSG duct burner (CT1, CT2, DB1, DB2) is pipeline natural gas as defined in 40 CFR §72.2 with a maximum sulfur content of 0.1 grains or less of total sulfur per 100 scf. A standard cubic foot of gas is defined as a cubic foot of gas at standard conditions (68°F and 29.92 in Hg) as specified in 40 CFR

§72.2. No change in fuel type may occur without DEQ approval. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-490 and Condition 11 of the March 9, 2022 Permit)

3. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – Fuel Throughput** – The two Siemens SGT6-5000F5 combustion turbines (CT1, CT2) and two 430 MMBtu/hr HRSG duct burners (DB1, DB2), combined, shall not consume more than 4.00×10^{10} cubic feet of natural gas 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.
(9VAC5-80-490 and Condition 14 of the March 9, 2022 Permit)

4. **Fuel Burning Equipment Requirements - (DB1, DB2) - Fuel Throughput** - The HRSG duct burners (DB1, DB2) shall not operate independently of each combustion turbine (CT1, CT2).
(9VAC5-80-490 and Condition 16 of the March 9, 2022 Permit)

5. **Fuel Burning Equipment Requirements - (DB1, DB2) – Fuel throughput** - The two HRSG duct burners (DB1, DB2) shall consume no more than 1.18×10^{9} cubic feet of natural gas 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.
(9VAC5-80-490 and Condition 17 of the March 9, 2022 Permit)

6. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – SU/SD** – The emission limits contained in Condition 10.b apply during periods of startup and shutdown.

   a. Startup and shutdown periods are defined as the average time per turbine for the two-turbine plant to complete startup and shutdown as follow:

      i. Cold Startup – refers to restarts made 72 hours or more after shutdown. Exclusion from the short-term emissions limits for cold startup periods shall not exceed 226 minutes per occurrence.

      ii. Warm Startup – refers to restarts made more than 4 but less than 72 hours after shutdown. Exclusion from the short-term emissions limits for warm startup periods shall not exceed 128 minutes per occurrence.

      iii. Hot Startup – refers to restarts made 4 hours or less after shutdown. Exclusion from the short-term emissions limits for hot startup periods shall not exceed 38 minutes per occurrence.

      iv. Shutdown – refers to the period between the time the turbine load drops below 50 percent operating level and the fuel supply to the turbine is cut. Exclusion from

the short-term emissions limits for shutdown shall not exceed 14 minutes per occurrence.

v. If the SCR was not engaged during startup of a particular combustion turbine (including ammonia injection), the failure of that startup shall not be considered a shutdown (as defined in 6.a.iv above). The subsequent startup will be considered a new startup.

b. The permittee shall operate the CEMS during periods of startup and shutdown.

c. The permittee shall record the time, date and duration of each startup and shutdown event. The records must include calculations of NO_x and CO emissions during each event based on the CEMS data. These records must be kept for five years following the date of such event.

d. If the applicable NOx and CO emission limits in Condition 10.a are exceeded during these events, the recorded emissions shall be included in the associated quarterly excess emission report.

e. During startup, the combustion turbine SCR system, including ammonia injection, and the oxidation catalyst shall be operated in a manner to minimize emissions, as technologically feasible, and not later than when the load reaches 50 percent of unit output. The permittee shall follow the control device manufacturer's written protocol or best engineering practices for minimizing emissions. Where best practices are used, the permittee shall maintain written documentation explaining the sufficiency of such practices. If such practices are used in lieu of the manufacturer's protocol, the documentation shall justify why the practices are at least equivalent to manufacturer's protocols with respect to minimizing emissions.

(9VAC5-80-490 and Condition 15 of the March 9, 2022 Permit)

7. **Fuel Burning Equipment Requirements - (CT1, CT2) – Alternative Operating Scenario: Re-tuning** – Excess emissions resulting from the retuning of the combustion turbines (CT1, CT2) shall be permitted provided that:

a. Best operational practices are adhered to and the duration of excess emissions shall be minimized but in no case exceed twelve hours per combustion turbine (CT1, CT2) re-tuning event in any 24-hour period. The operator may request additional hours from the DEQ as long as the notification is done as soon as the source is aware that the re-tuning event will exceed twelve hours.

b. During each combustion turbine (CT1, CT2) re-tuning event, NOx emission concentrations, based on an hourly average, shall not exceed the NOx standards of the New Source Performance Standards (NSPS) 40 CFR 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines (60.4300 et seq.).

c. The permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 64 no less than 24 hours prior to each turbine's re-tuning event. The notification shall include, but is not limited to:

i. Identification of the specific turbine to be re-tuned.

ii. Reason for the re-tuning event.

iii. Measures to be taken to minimize the length of the re-tuning event.

d. The permittee shall furnish a written report to the Regional Air Compliance Manager of the DEQ's NRO of all the pertinent facts concerning the retuning event, as soon as practicable, but not later than 14 business days after the re-tuning event. The notification shall include, but is not limited to:

i. Identification of the turbine that was re-tuned.

ii. The magnitude of excess emissions per turbine, 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.

e. NOx emissions during each turbine's re-tuning shall be recorded and included in the associated quarterly reports and the total annual emissions as required by this permit.

f. The re-tuning event for each turbine shall be identified on the Data Acquisition Report.

(9VAC5-80-490 and Condition 29 of the March 9, 2022 Permit)

8. **Fuel Burning Equipment Requirements - (CT1, CT2) - Pollution Prevention: Ammonia** – Compliance with the ammonia emission limit in Condition 10.a shall be determined based on a one-hour block average. The permittee shall demonstrate compliance with the ammonia emission limit at least 95 percent of the time that the SCR is operating. Compliance with the 95 percent time percentage requirement shall be calculated daily and based on a 30-day rolling period. Alternatively, if on a given day less than 100 hours of operation has occurred in the prior thirty days, compliance with the 95 percent limits may be based on the most recent 100 hours of SCR operation.
(9VAC5-80-490 and Condition 30 of the March 9, 2022 Permit)

9. **Fuel Burning Equipment Requirements - (CT1, CT2) - Pollution Prevention: SCR Replacement** – At least two years prior to a planned replacement of the entire SCR system, the permittee shall conduct a study of technically and economically feasible and commercially available NOx control devices. The study shall include the cost effectiveness for each control device evaluated, including SCR. The results of the evaluation shall be submitted to the Regional Air Permitting Manager of the DEQ's NRO at the address listed in Condition 64 prior to ordering the new system. In the event the permittee wants to replace the SCR with an alternative control device, such a replacement may not require a permit to modify and operate, providing the new system provides an equal or better level of control.
(9VAC5-80-490 and Condition 31 of the March 9, 2022 Permit)

10. **Fuel Burning Equipment Requirements - (CT1, CT2) - Short- Term Emission Limits**

a. Emissions from the operation of each combined-cycle power generating unit (CT1, CT2) shall not exceed the limits specified below:

Air Pollutant	Short term emission limits	Basis
Oxides of Nitrogen (as NO_2)	2.0 ppmvd @ 15% O_2 with and without HRSG duct burner firing 22.6 lb/hr with HRSG duct burner firing 19.3 lb/hr without HRSG duct burner firing	9VAC5-50-270 and 9VAC5-80-2050 LAER
Carbon monoxide (CO)	2.0 ppmvd @ 15% O_2 with and without HRSG duct burner firing 13.8 lb/hr with HRSG duct burner firing 11.7 lb/hr without HRSG duct burner firing	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT
Volatile organic compounds (VOC) (as methane)	1.5 ppmwv @ 15% O_2 with HRSG duct burner firing. 1.0 ppmwv at 15% O_2 without HRSG duct burner firing 6.0 lb/hr with HRSG duct burner firing 3.4 lb/hr without HRSG duct burner firing	9VAC5-50-270 and 9VAC5-80-2050 LAER
PM-10 (includes filterable and condensable)	3.74×10^{-3} lb/MMBtu at full load with and without HRSG duct burner firing 14.5 lb/hr with HRSG duct burner firing 10.1 lb/hr without HRSG duct burner firing	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT
PM-2.5 (includes filterable and condensable)	3.74×10^{-3} lb/MMBtu at full load with and without HRSG duct burner firing 14.5 lb/hr with HRSG duct burner firing 10.1 lb/hr without HRSG duct burner firing	9VAC5-50-260 and 9VAC5-80-1180 minor NSR BACT
Sulfur dioxide (SO_2)	2.61×10^{-4} lb/MMBtu at full load with and without HRSG duct burner firing 0.78 lb/hr with HRSG duct burner firing 0.67 lb/hr without HRSG duct burner firing	9VAC5-50-260 and 9VAC5-80-1180 minor NSR BACT
Ammonia (NH_3)	5.0 ppmvd @15% O_2 with and without HRSG duct burner firing	9VAC5-50-260 and 9VAC5-80-1180 minor NSR BACT

Where:
ppmvd = parts per million by volume on a dry gas basis, corrected to 15 percent O_2.
ppmwv = parts per million by volume on a wet gas basis, corrected to 15 percent O_2.

Short-term emission limits for VOC, PM-10, and PM-2.5 represent averages for a three-hour sampling period. Short term emission limits for NOx and CO shall be calculated as one-hour averages.

Unless otherwise specified, limits apply at all times except during startup, shutdown, and malfunction. Periods considered startup and shutdown are defined in Condition 6 of this permit.

Compliance with the SO_2 limit may be determined as stated in Condition 2. Compliance with ammonia slip limits will be determined based on criteria described in Condition 8.

b. During each startup and shutdown event, emissions from the combustion turbines (CT1, CT2) shall not exceed the following:

Air Pollutant	Startup/Shutdown Limitations		Basis
Oxides of Nitrogen Oxides (as NO_2)	Cold start event	150 lb/event	9VAC5-50-270 and 9VAC5-80-2050 LAER NSPS, Subpart KKKK
	Warm start event	105 lb/event	
	Hot start event	93 lb/event	
	Shutdown event	33 lb/event	
Carbon Monoxide (CO)	Cold start event	1900 lb/event	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT
	Warm start event	1700 lb/event	
	Hot start event	1200 lb/event	
	Shutdown event	85 lb/event	
Volatile Organic Compounds (VOC) (as methane)	Cold start event	210 lb/event	9VAC5-50-270 and 9VAC5-80-2050 LAER
	Warm start event	175 lb/event	
	Hot start event	140 lb/event	
	Shutdown event	35 lb/event	

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 the NOx and CO limits shall be determined as stated in Conditions 6 and 17. Compliance with the VOC limits may be determined by demonstrating correlation of VOC and CO emissions, using manufacturer's startup and shutdown CO and VOC emission estimates and CO CEMS data.

(9VAC5-80-490 and Condition 32 of the March 9, 2022 Permit)

11. **Fuel Burning Equipment Requirements - (CT1, CT2) – GHG Emissions** – CO_2e emissions from the combined cycle gas turbine generators and associated duct burners for the HRSGs (CT1, CT2, DB1, DB2) shall not exceed 903 lb/MWh (gross) calculated monthly on a 12-operating month annual average basis. Compliance shall be determined each month by summing the CO_2e emissions for all hours in which power is being generated to the grid during the previous 12 months and dividing that value by the sum of the electrical energy output over that same period.
(9VAC5-80-490 and Condition 33 of the March 9, 2022 Permit)

12. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – Annual Emissions** – Total emissions from the combined operation of the two combined cycle power-generating units (CT1, CT2), including duct burners (DB1, DB2) shall not exceed the limits specified below:

Air Pollutant	Annual Emissions (tons per year)	Basis
Oxides of Nitrogen (as NO_2)	154.45	9VAC5-50-270 and 9VAC5-80-2050 LAER
Carbon Monoxide (CO)	124.8	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT
Volatile Organic Compounds (VOC)	45.26	9VAC5-50-270 and 9VAC5-80-2050 LAER
PM-10 (including filterable and condensable)	94.68	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT
PM-2.5 (including filterable and condensable)	94.68	9VAC5-50-260 and 9VAC5-80-1180 minor NSR BACT
Sulfur Dioxide	5.26	9VAC5-50-260 and 9VAC5-80-1180 minor NSR BACT
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	2,424,396	9 VAC5-50-280 and 9VAC5-80-1705.B PSD BACT

Annual emission limits are derived from the estimated overall emission contribution from operating limits, including periods of startup and shutdown. 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 Conditions 2, 3, 5, 17, and 31. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 34 of the March 9, 2022 Permit)

13. **Fuel Burning Equipment Requirements - (CT1, CT2) – Visible Emissions** - Visible emissions from each combined cycle power generating unit stack 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 the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown (as defined in Condition 6), and malfunction.
(9VAC5-80-490 and Condition 35 of the March 9, 2022 Permit)

Monitoring

14. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) - Monitoring Devices: SCR –**

    a. Each SCR system shall be equipped with devices to continuously measure and record ammonia feed rate and catalyst bed inlet gas temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with the device manufacturer's written requirements and recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the SCR system is operating.

b. The devices used to continuously measure ammonia feed rate and SCR catalyst bed inlet gas temperature shall be observed by the permittee with a frequency sufficient to ensure good performance of the SCR system, but not less than once per day of operation.

(9VAC5-80-490 and Conditions 6 and 8 of the March 9, 2022 Permit)

15. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) - Monitoring Devices: Oxidation Catalyst –**

a. Each oxidation catalyst shall be equipped with a device to continuously measure and record temperature at the catalyst bed inlet and outlet. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with the device manufacturer's written requirements and recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the oxidation catalyst is operating.

b. The devices used to continuously measure the catalyst bed inlet and outlet gas temperatures for each oxidation catalyst shall be observed by the permittee with a frequency sufficient to ensure good performance of the oxidation catalyst, but not less than once per day of operation.

(9VAC5-80-490 and Conditions 7 and 9 of the March 9, 2022 Permit)

16. **Fuel Burning Equipment Requirements - (CT1, CT2, DB1, DB2) – Fuel Monitoring** – The permittee must use the fuel characteristic in a current, valid purchase contract, tariff sheet or transportation contract for the natural gas to demonstrate compliance with Condition 2. The document must specify that the maximum total sulfur content for the natural gas is 0.1 grains of sulfur or less per 100 standard cubic feet and / or representative fuel sampling data, which shows that the sulfur content of the fuels does not exceed 2.61×10^{-4} lb SO_2/MMBtu heat input. If the permittee elects not to demonstrate the sulfur content using this option, the permittee may:

a. Determine and record the total sulfur content of the natural gas once per unit operating day; or,

b. Develop custom schedules for determination of the total sulfur content of the natural gas, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall receive prior EPA approval.

(9VAC5-80-490 and Condition 13a of the March 9, 2022 Permit)

17. **Fuel Burning Equipment Requirements - (CT1, CT2,) - CEMS (NOx and CO)-** Continuous Emission Monitoring Systems (CEMS) shall be installed on CT1 and CT2 to measure and record the emissions of NO_x (measured as NO_2) and carbon monoxide (CO), in parts per million by volume (ppmvd), corrected to 15 percent O_2, from each combined cycle power generating unit (CT1, CT2). The NO_x CEMS shall be installed, evaluated, and operated and meet the design specifications of 40 CFR Part 75 whereas CEMS for CO shall be installed, evaluated, and operated according to the "Monitoring

Requirements" in 40 CFR 60.13. The CEMS shall also measure and record the oxygen content of the flue gas at each location where NO_x and CO emissions are monitored. Heat input and power output for CT1 and CT2 shall also be measured and recorded. A CEMS or alternative method as allowed by 40 CFR 75 shall be used to measure sulfur dioxide emissions to comply with the requirements of 40 CFR 75 (acid rain program monitoring). For compliance with the emission limits contained in Condition 10.a, NO_x and CO data shall each be reduced to one-hour rolling blocks. The relative accuracy test audit (RATA) of the NO_x/O_2 CEMS shall be performed on a lb/MMBtu basis.
(9VAC5-80-490 and Condition 46 of the March 9, 2022 Permit)

18. **Fuel Burning Equipment Requirements - (CT1, CT2) - Monitoring NOx CEMS -** Performance evaluations of the NO_x, and, if applicable, SO_2 CEMS shall be conducted in accordance with 40 CFR Part 75, Appendix B. One copy of the performance evaluation report shall be submitted to the DEQ within 45 days of the evaluation.
(9VAC5-80-490 and Condition 47 of the March 9, 2022 Permit)

19. **Fuel Burning Equipment Requirements - (CT1, CT2) - Monitoring CO CEMS -** Performance evaluations of the CO CEMS shall be conducted in accordance with 40 CFR Part 60, Appendix B. One copy of the performance evaluation report shall be submitted to the DEQ within 45 days of the evaluation.
(9VAC5-80-490 and Condition 48 of the March 9, 2022 Permit)

20. **Fuel Burning Equipment Requirements - (CT1, CT2) – CEMS Quality Control Program** - For the NOx and diluent CEMS, the quality control requirements of 40 CFR Part 75 shall be met. The Quality Assurance Accuracy Specifications for the CO CEMS shall be 40 CFR 60 Appendix F, Procedure 1. A linearity test for NO_X and diluent, and a Cylinder Gas Audit (CGA) for CO shall be performed once per QA operating quarter (≥ 168 hours operation) not to exceed four calendar quarters. A RATA test for each installed CEMS shall be conducted once every four Quality Assurance (QA) operating quarters (≥ 168 hours operation each), not to exceed eight calendar quarters. The provisions for a grace period to complete testing shall apply (40 CFR 75, Appendix B 2.2.4 & 2.3.3). Data validation shall be as defined in 40 CFR Part 75, Appendix B, 2.3.2 with the exception that missing data for CO, resulting from continuous monitor system breakdown, repair, calibration checks, and zero and span adjustments, shall be reported as monitor downtime and not substituted. No bias factor shall be applied to the CO monitored value as per 40 CFR Part 60.
(9VAC5-80-490 and Condition 50 of the March 9, 2022 Permit)

21. **Fuel Burning Equipment Requirements - (CT1, CT2) – NOx and CO Excess Emissions/Monitoring Downtime** - For the purpose of this permit, periods of excess emissions and monitor downtime that must be reported under Condition 32 are defined as follows:

    a. An excess emission is any unit operating period in which the one-hour average NO_x emission rate exceeds the applicable emission limit in Condition 10.a;

b. An excess emission is any unit operating period in which the one-hour average CO emission rate exceeds the applicable emission limit in Condition 10.a;

c. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO concentration, O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the permittee uses this information for compliance purposes.

(9VAC5-80-490 and Condition 51 of the March 9, 2022 Permit)

22. **Fuel Burning Equipment Requirements - (CT1, CT2) – SO_2 Excess Emissions and Monitoring Downtime** – For the purpose of this permit, periods of excess emissions and monitor downtime that must be reported under Condition 32 are defined as follows:

a. An excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine (CT1 or CT2) exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit; and

b. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

(9VAC5-80-490 and Condition 52 of the March 9, 2022 Permit)

23. **Fuel Burning Equipment Requirements - (CT1, CT2) – Excess Emissions for Continuous Monitoring Systems** – For purposes of identifying excess emissions:

a. All CEMS data must be reduced to hourly averages as specified in 40 CFR 60.13(h).

b. For each operating hour in which a valid hourly average, as described in 40 CFR 60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm, using the appropriate equation in 40 CFR 60, Appendix A Method 19. For any hour in which the hourly average of O_2 concentration exceeds 19.0 percent O_2, a diluent cap value of 19.0 percent O_2 may be used in the emission calculations.

c. Only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in 40 CFR 75, Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR 60.7(c).

(9VAC5-80-490 and Condition 54 of the March 9, 2022 Permit)

24. **Fuel Burning Equipment Requirements - (CT1, CT2) – Monitoring CO_2e** – CO_2 emissions from each combustion turbine generator (CT1, CT2) shall be monitored using one of the methods in 40 CFR Part 75.13. The methods in Appendix G to 40 CFR Part

75, shall be used to report annual CO_2 emissions. The permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO as to which method will be used to determine the emissions of CO_2 from the turbines and provide prior notification of any changes or if alternative method will be used. CH_4 and N_2O emissions shall be calculated using the facility's reported fuel heating value data and the emission factors found in 40 CFR Part 98, Subpart C, Table C-2. Annual CO_2e emissions shall be calculated using the global warming potential factors found in 40 CFR Part 98, Subpart A, Table A-1 for CO_2, CH_4, and N_2O.
(9VAC5-80-490 and Condition 49 of the March 9, 2022 Permit)

25. **Fuel Burning Equipment Requirements - (CT1, CT2) – Visible Emission Monitoring** – The permittee shall conduct visible emission inspections on each combined cycle power generating unit (CT1, CT2) stack in accordance with the following procedures and frequencies:

a. At a minimum of once per week, the permittee shall observe the exhaust stack of each combined cycle power generating unit (CT1, CT2) when in operation for the presence of visible emissions. If during the inspection, visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If any of the individual observations exceed the applicable standard, the VEE shall be continued for 60 minutes.

b. If visible emissions inspections conducted during 12 consecutive weeks show no visible emissions for a particular unit stack, the permittee may reduce the monitoring frequency to once per month for that unit stack (*Note: DEQ NRO Air Compliance Manager granted a request from Panda Stonewall LLC to reduce the frequency of visible emission monitoring from weekly to monthly on October 2, 2019 after the facility's inspections showed no visible emissions for 12 consecutive weeks – see* Appendix B*)*. Anytime the monthly visible emissions inspections show visible emissions, or when requested by the DEQ, the monitoring frequency shall be increased to once per week for that stack.

The details and results of all visible emission inspections and observations, and VEEs shall be recorded. The permittee shall maintain records of all such events.

(9VAC5-80-490, Condition 66 of the March 9, 2022 Permit, and communication dated October 2, 2019 from DEQ NRO Compliance Manager to Panda Stonewall granting a reduction in visible emission inspection frequency)

Testing

26. **Fuel Burning Equipment Requirements – (CT1, CT2) – Periodic Testing** – The permittee shall conduct biennial performance tests on each combined cycle power generating unit (CT1, CT2), at 24-month intervals for VOC, PM-10 and PM-2.5 emissions, using the specified methods, as appropriate:

Pollutant	Test Method
Volatile Organic Compounds (VOC)	40 CFR 60, Appendix A, Method 25A
PM-10 and PM-2.5 (including condensables)	40 CFR 60, Appendix A, Methods 5 or 17 and 19 40 CFR 51, Appendix M, Method 201A and 202.

Tests shall be conducted to determine compliance with the emission limits for VOC, PM-10, and PM-2.5 contained in Condition 10.a. The tests shall be conducted on each combined-cycle power generation unit for two different operating scenarios: natural gas firing with the duct burners off; and natural gas firing with the duct burners on.
The tests 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 Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 64. The permittee shall submit a test protocol at least 30 days prior to testing. Samples taken as required by this permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories. Two copies of the test results (one on paper and one electronic) shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO within 60 days after test completion and shall conform to the test reporting format in Appendix A of this permit (upon request, DEQ will consider electronic submission only).

If during three consecutive test events neither unit has tests results that show emissions at greater than 80 percent of the emission limits in Condition 10.a, the testing interval for each turbine may be expanded up to 60 months upon approval from the Regional Air Compliance Manager of the DEQ's NRO. If any subsequent test results in emissions of greater than 80 percent, biennial testing at no more than 24-month intervals shall resume. The tests for each turbine may be staggered within the schedule above, so that they are not necessarily conducted for both units in the same calendar year.

The tests need only be conducted at the maximum load in the normal operating range and the minimum load of the normal operating range, unless the minimum load is within ten percent of the maximum load, in which case testing is required at only the maximum load. The normal operating range shall be determined from records of actual operation. Upon request by the DEQ, the permittee shall conduct additional performance tests for each combined-cycle power generating unit (CT1, CT2) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be agreed upon with the Regional Air Compliance Manager of the DEQ's NRO.
(9VAC5-80-490 and Conditions 56 and 65 of the March 9, 2022 Permit)

27. **Fuel Burning Equipment Requirements - (CT1, CT2) – Testing: Annual Performance Test –** Annual performance tests shall be conducted on each combustion turbine (CT1, CT2) for SO_2 to determine compliance with the limits contained in

Condition 2. The permittee may use one of the following three methods (a., b. or c. below) to conduct the performance test:

a. If the permittee chooses to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see 40 CFR 60.17 or by manual sampling using the Gas Process Association Standard 2166) for natural gas. The fuel analyses may be performed either by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. The samples for the total sulfur content of the fuel shall be analyzed using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D5504, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR 60.17).

b. 40 CFR 60, Appendix A, Methods 6, 6C, 8, or 20 shall be used to measure the SO_2 concentration (in parts per million (ppm)). In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19–10–1981–Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see 40 CFR 60.17) can be used instead of EPA Methods 6 or 20.

c. 40 CFR 60, Appendix A, Methods 6, 6C, or 8 and 3A, or 20 shall be used to measure the SO_2 and diluent gas concentrations. In addition, the permittee may use the manual methods for sulfur dioxide ASME PTC 19–10–1981–Part 10 (incorporated by reference, see 40 CFR 60.17).

The tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). Tests 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 Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 64. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results (one on paper and one electronic) shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO, within 60 days after test completion and shall conform to the test report format in Appendix A of this permit (upon request, DEQ will consider electronic submission only).
(9VAC5-80-490 and Condition 64 of the March 9, 2022 Permit)

28. **Fuel Burning Equipment Requirements - (CT1, CT2) – Testing** – Every five years after initial evaluation of the heat rate limit of the power generation block, the permittee shall conduct a heat rate evaluation of the power generation block to show compliance with the heat rate limit contained in Condition 1.d. The details of the evaluation are to be arranged with the DEQ's NRO. Two copies of the evaluation results (one on paper and one electronic) shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO, within 60 days after test completion and shall conform to the test report format in Appendix A of this permit (upon request, DEQ will consider electronic submission only).
(9VAC5-80-490 and Condition 68 of the March 9, 2022 Permit)

NSPS Subpart KKKK Requirements

29. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the combustion turbines (CT1, CT2) and associated HRSGs (DB1, DB2) shall be operated in compliance with the requirements of 40 CFR 60, Subpart KKKK.

Unit	Pollutant	Emission Limit	Compliance	Monitoring	Reporting	Testing
CT1 CT2	NOx	60.4320: 15 ppm @15% O_2	60.4333: good air pollution control practices and 60.4340: NOx CEMS	60.4340 through 60.4350: NOx CEMS	60.4375, 60.4380, 60.4395: semiannual excess emissions	60.4400
CT1 CT2	SO_2	60.4330: 0.9 lb/MW-hr; 0.06 lb/MMBtu	60.4333: good air pollution control practices	60.4365 through 60.4370: total sulfur content of fuel must be monitored unless NG is shown to contain less than or equal to 20 gr/100scf	60.4375, 60.4385, 60.4395: Excess emissions reporting applies only if sulfur content is sampled	60.4415: annual testing for either sulfur content of gas or for SO_2 from stacks.

(9VAC5-80-490, 40 CFR 60 Subpart KKKK, and Condition 18 of the March 9, 2022 Permit)

NSPS Subpart TTTT Requirements

30. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the combustion turbines (CT1, CT2) shall be operated in compliance with the requirements of 40 CFR 60, Subpart TTTT. <u>These requirements are enforceable by EPA only</u>.

Requirement	Citation	Description
Emission Standard	60.5520(a)&(b) Table 2	450 kg (1,000 lbs) CO_2/MWh of gross energy output.
Compliance	60.5525(a)(1), (b)&(c); 60.5540(a)(1)-(7)	Calculate average monthly CO_2 emissions rate on a 12-month rolling basis or install CO_2 CEMS..
Monitoring/Testing	60.5535(a); and (b)(1)-(5) or (c)(1)-(4); and (d)(1). Also 60.5535(e), (f), and (g), as applicable.	Create Monitoring Plan as per §75.53(g) & (h) to quantify tons of CO_2/hr; either use CEMs to measure CO_2 or calculate as per §75.10(a)(3)(iii); or determine CO_2 emissions based on hourly heat input rate and fuel flow; and install, calibrate, maintain and operate watt meters.
Notifications and Reports	60.5550(a)&(b) 60.5555(a)–(d) 60.5535(c)(4)	Notifications as per 60.7(a)(1) & (3); Submit electronic quarterly reports using ECMPS Client Tool (CAMD, OAP, EPA)
Recordkeeping	60.5535(c)(4) 60.5560(a), (b)(1), (c)-(g) 60.5565(a)-(c)	Record and report the hourly CO_2 tons/hr and EGU operating times used to calculate CO_2 mass emissions. Maintain records used to demonstrate compliance with this subpart.

(9VAC5-80-490 and 40 CFR 60 Subpart TTTT)

Recordkeeping and Reporting

31. **Fuel Burning Equipment Requirements - (CT1, CT2) - Recordkeeping -** 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 Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

    a. Fuel records to demonstrate compliance with Conditions 2 and 16 of this permit.

    b. Fuel monitoring device QA/QC for the CEMS per 40 CFR Part 75.

    c. Monthly and annual throughput of natural gas to each combustion turbine (CT1, CT2), calculated monthly as the sum of each consecutive 12-month period.

    d. Monthly and annual throughput of natural gas to each duct burner (DB1, DB2), calculated monthly as the sum of each consecutive 12-month period.

    e. Time, date, and duration of each startup, shutdown, malfunction, and turbine retuning period for each combined cycle power generating unit (CT1, CT2).

    f. Annual number of startup and shutdown occurrences for each combined-cycle power generating unit (CT1, CT2), calculated monthly as the sum of each consecutive 12-month period.

    g. Emissions calculations sufficient to verify compliance with the annual emission limits in Condition 12, including startup and shutdown events. Calculation methods shall be approved by the Regional Air Compliance Manager of the DEQ's NRO.

    h. Continuous records of heat input for each combined-cycle power generating unit (CT1, CT2).

    i. Continuous records of power output for each combined-cycle power generating unit (CT1, CT2) and the steam turbine generator.

    j. Continuous monitoring systems emissions data, calibrations and calibration checks, percent operating time, and excess emissions.

    k. Operation and control device monitoring records for each SCR system and each oxidation catalyst.

    l. Records for each combined-cycle power generating unit (CT1, CT2) showing steady state vs. non steady state operation during a given hour, the ammonia emissions monitoring plan, and the ammonia emission monitoring results required by Condition 8.

    m. Scheduled and unscheduled maintenance, and operator training.

    n. Results of all stack tests, visible emission evaluations, visible emission inspection results, and performance evaluations.

    (9VAC5-80-490 and Conditions 70 of the March 9, 2022 Permit)

32. **Fuel Burning Equipment Requirements - (CT1, CT2) – Reporting -** The permittee shall furnish written reports - to the Regional Air Compliance Manager of the DEQ's

NRO at the address listed in Condition 64 (upon request, DEQ will consider electronic submission only)- from any process monitored by a CEMS, on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:

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. For each month in the quarter, report each hour in which a permit emission limit is exceeded. The report shall include for each excess emission of NOx or CO: start time, duration, equipment involved, actual NOx or CO emissions in ppmvd @ 15% O_2, fuel consumption rate, actual weather conditions (temperature and barometric pressure) and turbine load.

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, the corrective action taken, and 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. If during the calendar quarter 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.

e. Excess emission reports for sulfur dioxide and nitrogen dioxide as required in 40 CFR 60.4395.

Electronic reports and notifications can be sent to EPA as required by regulations.

Copies of the written reports referenced in items “a” through “d” above are to be sent to:

Chief, Air Section
United States Environmental Protection Agency
Region III, Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

(9VAC5-80-490 and Condition 53 of the March 9, 2022 Permit)

Fuel Burning Equipment Requirements - Auxiliary Boiler and Fuel Gas Heater

(AB1, FG1)

Limitations

33. **Equipment Requirements - (AB1, FG1) - Emission Controls**.

    a. NO_x emissions from the auxiliary boiler (AB1) and the fuel gas heater (FG1) shall be controlled by ultra-low-NO_x burners with a NOx performance of 9 ppmvd at 3% O_2 for natural gas. The low NOx burners shall be installed and operated in accordance with manufacturer's specifications.

    b. CO and VOC emissions from the auxiliary boiler (AB1) and the fuel gas heater (FG1) shall be controlled by good combustion practices, operator training, and proper emissions unit design, construction, and maintenance to achieve a maximum CO emission rate of 50 ppmvd at 3% O_2. Boiler and heater operators shall be trained in the proper operation of all such equipment (as part of the requirements in 9VAC5-50-20 E to maintain and operate the affected facility in a manner consistent with air pollution control practices for minimizing emissions, including excess emissions).

    c. PM-10 and PM-2.5 emissions from the auxiliary boiler (AB1) and the fuel gas heater (FG1) shall be controlled by good combustion practices and the use of pipeline quality natural gas with a sulfur content of no greater than 0.1 grains per 100 standard cubic feet, on a 12-month rolling average.

    d. CO_2e from the auxiliary boiler (AB1) and the fuel gas heater (FG1) shall be controlled by the use of pipeline-quality natural gas and high efficiency design and operation.

    (9VAC5-80-490 and Condition 3 of the March 9, 2022 Permit)

34. **Fuel Burning Equipment Requirements - (AB1, FG1) - Fuel**- The approved fuel for the auxiliary boiler (AB1) and the fuel gas heater (FG1) is pipeline natural gas as defined in 40 CFR §72.2 with a maximum sulfur content of 0.1 grains or less of total sulfur per 100 standard cubic foot (scf). A standard cubic foot of gas is defined as a cubic foot of gas at standard conditions (68°F and 29.92 in. Hg) as specified in 40 CFR §72.2. No change in fuel type may occur without DEQ approval. A change in the fuel may require a permit to modify and operate.
    (9VAC5-80-490 and Condition 11 of the March 9, 2022 Permit)

35. **Fuel Burning Equipment Requirements - (AB1) – Fuel Throughput** -The auxiliary boiler (AB1) shall consume no more than 1.99×10^8 cubic feet of natural gas 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.
    (9VAC5-80-490 and Condition 19 of the March 9, 2022 Permit)

36. **Fuel Burning Equipment Requirements - (FG1)- Fuel Throughput** -The fuel gas heater (FG1) shall consume no more than 1.51 x 10^8 cubic feet of natural gas 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.
(9VAC5-80-490 and Condition 20 of the March 9, 2022 Permit)

37. **Fuel Burning Equipment Requirements - (AB1) – Emission Limitations** – Emissions from the auxiliary boiler (AB1) shall not exceed the limits specified below:

Air Pollutant	Lb/hr	Tons/yr	Basis
Oxides of Nitrogen (as NO_2)	0.26	1.12	LAER
Carbon Monoxide (CO)	0.86	3.76	PSD BACT
Volatile Organic Compounds (VOC)	0.05	0.21	LAER
PM-10 (includes filterable and condensable)	0.05	0.21	PSD BACT
PM-2.5 (includes filterable and condensable)	0.05	0.21	Minor NSR BACT
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	2,744	12,020	PSD BACT

These emissions are derived from the estimated overall emission contribution from operating limits, including periods of startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 36 of the March 9, 2022 Permit)

38. **Fuel Burning Equipment Requirements - (FG1) – Emission Limitations** – Emissions from the fuel gas heater (FG1) shall not exceed the limits specified below:

Pollutant	Lb/hr	Tons/yr	Basis
Oxides of Nitrogen (as NO_2)	0.19	0.85	LAER
Carbon Monoxide (CO)	0.65	2.86	PSD BACT
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	2,082	9,119	PSD BACT

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. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 37 of the March 9, 2022 Permit)

39. **Fuel Burning Equipment Requirements - (AB1, FG1) – Visible Emissions** - Visible emissions from both the auxiliary boiler (AB1) and fuel gas heater (FG1) stacks shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-490 and Condition 38 of the March 9, 2022 Permit)

Monitoring

40. **Fuel Burning Equipment Requirements - (AB1, FG1) – Fuel Monitoring** – The permittee must use the fuel characteristic in a current, valid purchase contract, tariff sheet

or transportation contract for the natural gas to demonstrate compliance with Condition 34. The document must specify that the maximum total sulfur content for the natural gas is 0.1 grains of sulfur or less per 100 standard cubic feet and/or representative fuel sampling data, which shows that the sulfur content of the fuels does not exceed 2.61 x 10^{-4} lb SO_2/MMBtu heat input. If the permittee elects not to demonstrate the sulfur content using this option, the permittee may:

a. Determine and record the total sulfur content of the natural gas once per unit operating day; or,

b. Develop custom schedules for determination of the total sulfur content of the natural gas, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall receive prior EPA approval.

(9VAC5-80-490 and Condition 13a of the March 9, 2022 Permit)

41. **Fuel Burning Equipment Requirements - (AB1, FG1) – Visible Emissions Monitoring** — The permittee shall conduct visible emission inspections on the auxiliary boiler (AB1) and fuel gas heater (FG1) stacks in accordance with the following procedures and frequencies:

a. At a minimum of once per month, the permittee shall observe the exhaust stack of the auxiliary boiler (AB1) and the fuel gas heater (FG1) when in operation for the presence of visible emissions. If during the inspection, visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed the applicable standard, the VEE shall be continued for 60 minutes.

b. If visible emission inspections conducted during 12 consecutive months show no visible emissions, the permittee may reduce the monitoring frequency to once per quarter. Anytime the quarterly visible emissions inspections show visible emissions, or when requested by the DEQ, the monitoring frequency shall be increased to once per month.

c. The details and results of all visible emission inspections and observations, and VEEs shall be recorded. The permittee shall maintain records of all such events.

(9VAC5-80-490 and Condition 67 of the March 9, 2022 Permit)

NSPS Subpart Dc Requirements

42. **Fuel Burning Equipment Requirements (AB1, FG1) - Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the auxiliary boiler (AB1) and the fuel gas heater (FG1) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc. The facility must record the amount of natural gas combusted in each unit each calendar month.
(9VAC5-80-490, 40 CFR 60.48c(g)(2) and Condition 21 of the March 9, 2022 Permit)

Recordkeeping

43. **Fuel Burning Equipment Requirements - (AB1, FG1) - Recordkeeping** - 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 Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

    a. Fuel records to demonstrate compliance with Conditions 34 and 40.

    b. Emissions calculations sufficient to verify compliance with the annual emission limits in Conditions 37 and 38, calculated monthly as the sum of each consecutive 12-month period. Calculation methods shall be approved by the Regional Air Compliance Manager of the DEQ's NRO.

    c. Monthly and annual throughput of natural gas and hours of operation of the auxiliary boiler (AB1) and fuel gas heater (FG1), calculated monthly as the sum of each consecutive 12-month period.

    d. Records of manufacturer's instructions for proper operation of equipment for the auxiliary boiler (AB1) and fuel gas heater (FG1) as required by Condition 33.a.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-490 and Condition 70 of the March 9, 2022 Permit)

Engine Requirements – Emergency Generator and Fire Pump

(EG1, EFP1)

Limitations

44. **Engine Requirements: (EG1 and EFP1) – Emission Controls** – PM-10, PM-2.5, NO_x, CO, and VOC emissions from the emergency generator (EG1) and fire pump (EFP1) shall be controlled by combustion practices as recommended by the equipment manufacturer and the use of ultra-low sulfur diesel fuel oil with a maximum sulfur content of 15 ppm by weight. CO_2e emissions shall be controlled by high efficiency design and operation.
    (9VAC5-80-490 and Conditions 4 and 5 of the March 9, 2022 Permit)

45. **Engine Requirements: (EG1 and EFP1) - Fuel** - The approved fuel for the emergency engine generator (EG1) and the emergency diesel fire pump (EFP1) shall be diesel that meets the specifications below:

    a. Does not exceed the American Society for Testing and Materials (ASTM) specifications, D975, for grade ultra low sulfur 2-D, or grade 2-D S15, or

    b. Has a maximum sulfur content not to exceed 0.0015% by weight (15 ppm) and either a minimum cetane number of forty or maximum aromatic content of thirty-five percent volume.

    (9VAC5-80-490 and Condition 12 of the March 9, 2022 Permit)

46. **Engine Requirements: (EG1 and EFP1) - Emergency Operation** – The operation of the emergency generator (EG1) and the emergency fire (EFP1) is limited to emergency situations. Emergency situations include:

    a. Emergency generator use to produce power for critical networks or equipment (including power supplied to portions of the facility) when electric power from the local utility (or the normal source, if the facility runs on its own power production) is interrupted, and

    b. Emergency engine use to pump water in the case of fire or flood, etc.

    The emergency generator (EG1) and the emergency fire pump (EFP1) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per calendar year for each unit.
    (9VAC5-80-490 and Condition 22 of the March 9, 2022 Permit)

47. **Engine Requirements: (EG1) - Operating Hours** - The emergency generator (EG1) shall not operate more than 500 hours each 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.
    (9VAC5-80-490 and Condition 23 of the March 9, 2022 Permit)

48. **Engine Requirements: (EFP1) - Operating Hours** - The emergency fire pump (EFP1) shall not operate more than 500 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.
    (9VAC5-80-490 and Condition 24 of the March 9, 2022 Permit)

49. **Engine Requirements: (EG1 and EFP1) - Maintenance and Operation** – The permittee must maintain and operate the emergency generator (EG1) and the emergency fire pump (EFP1) according to the manufacturer's written requirements. In addition, the permittee may only change those settings that are allowed by the equipment manufacturer's written requirements.
    (9VAC5-80-490 and Condition 25 of the March 9, 2022 Permit)

50. **Engine Requirements: (EG1) - Emission Limits** - Emissions from the emergency generator (EG1) shall not exceed the limits specified below:

Pollutant	lb/hr	tons/year	Basis
Oxides of Nitrogen (as NO_2)	15.51	3.88	LAER
Carbon Monoxide (CO)	8.48	2.12	PSD BACT
Volatile Organic Compounds (VOC)	15.51	3.88	LAER
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	1,647	412	PSD BACT

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 Condition 47. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 39 of the March 9, 2022 Permit)

51. **Engine Requirements: (EFP1) - Emission Limits** - Emissions from the emergency fire pump (EFP1) shall not exceed the limits specified below:

Pollutant	lb/hr	tons/year	Basis
Oxides of Nitrogen (as NO_2)	1.56	0.39	LAER
Carbon Monoxide (CO)	1.36	0.35	PSD BACT
Volatile Organic Compounds (VOC)	1.56	0.39	LAER
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	275	69	PSD BACT

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 Condition 48. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 40 of the March 9, 2022 Permit)

Monitoring

52. **Engine Requirements: (EG1 and EFP1) – Monitoring Hours of Operation** - The emergency generator (EG1) and the emergency fire pump (EFP-1) shall be equipped with a non-resettable hour metering device to monitor the operating hours of each unit. Each monitoring device shall be observed by the permittee with a frequency of not less than once each day that the generator/fire pump is in operation. The permittee shall keep a log of these observations. Each monitoring device shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the generator/fire pump is operating.
(9VAC5-80-490 and Condition 10 of the March 9, 2022 Permit)

53. **Engine Requirements - (EG1 and EFP1) – Monitoring Fuel** – The permittee shall obtain a fuel certification from the fuel supplier with each shipment of diesel fuel oil. Each fuel supplier certificate shall contain the following:

a. The name of the fuel supplier, and

b. The date on which the diesel fuel oil was received, and

c. The quantity of diesel fuel oil delivered in the shipment, and

d. Either a statement that the diesel fuel oil conforms to the requirements of Condition 45 – Fuel Specification, or

e. Alternately, the permittee shall obtain approval from the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO) at the address listed in Condition 64 if other documentation will be used to certify the diesel fuel oil type.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by the DEQ, may be used to determine compliance with the fuel specifications stipulated in Condition 45. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits. (9VAC5-80-490 and Condition 13b of the March 9, 2022 Permit)

NSPS Subparts IIII Requirements

54. **Fuel Burning Equipment Requirements - (EG1, EFP1) – NSPS Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the NSPS equipment (EG1, EFP1) shall be operated in compliance with the requirements of 40 CFR 60, Subpart IIII as follows:

Unit	Emission Standard, Fuel Requirements	Monitoring & Compliance	Testing	Notification, Reporting, Recordkeeping
EFP1	60.4205(c) (Table 4), 60.4207(b) 3.0 g/hp-hr NMHC + NOx 2.6 g/hp-hr CO 0.15 g/hp-hr PM The unit must use diesel fuel that meets the requirements of 40 CFR 1090.305 of 15 ppm sulfur and minimum cetane index of 40 or maximum aromatic content of 35 volume percent.	60.4209(a), 60.4211(a), (c)&(f). Purchase certified engine, install and operate as per manufacturer emission-related specifications, and install non-resettable hour meter.	Not required for certified engines	60.4214(b) if emergency engine does not meet standard for non-emergency engine, the owner must keep records of emergency and non-emergency operation.
EG1	60.4205(b), 60.4207(b): comply with emission standards in 60.4202(a)(2) (from 40 CFR 1039 Appendix I) of 6.4 g/kW-hr for NMHC+NOx, 3.5 g/kW-hr for CO, and 0.2 g/kW-hr for PM, and 40 CFR 1039.105 opacity limits. The unit must use diesel fuel that meets the requirements of 40 CFR 1090.305 of 15 ppm sulfur and minimum cetane index of 40 or maximum aromatic content of 35 volume percent.	60.4209(a), 60.4211(a), (c)&(f). Purchase certified engine, install and operate as per manufacturer emission-related specifications, and install non-resettable hour meter.	Not required for certified engines	60.4214(b) if emergency engine does not meet standard for non-emergency engine, the owner must keep records of emergency and non-emergency operation.

(9VAC5-80-490 and 9VAC5-50-410)

MACT Subpart ZZZZ Requirements

55. **Fuel Burning Equipment Requirements - (EG1, EFP1) – MACT Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the MACT equipment (EG1, EFP1) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ as follows:

Unit	Applicability
EG1	63.6590(c) a new stationary RICE located at an area source: comply with NSPS IIII
EFP1	63.6590(c) a new stationary RICE located at an area source: comply with NSPS IIII

(9VAC5-80-490 and 9VAC5-60-100)

Recordkeeping

56. **Engine Requirements – (EG1, EFP1) - Recordkeeping -** 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 Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

a. Annual hours of operation of the emergency generator (EG1) and the emergency fire pump (EFP1) for emergency purposes, calculated monthly as the sum of each consecutive 12-month period.

b. Time, date, and duration of operation of the emergency generator (EG1) and the emergency fire pump (EFP1) for maintenance checks and readiness testing and the operational status of each combined-cycle power generating unit (CT1, CT2) during those maintenance checks and readiness testing.

c. Annual hours of operation of the emergency generator (EG1) and the emergency fire pump (EFP1) for maintenance checks and readiness testing, calculated monthly as the sum of each consecutive 12-month period.

d. All fuel supplier certifications for the S15 (ULSD) fuel used in the emergency units (EG1 and EFP1) to demonstrate compliance with Condition 53.

e. Records required by NSPS, Subpart IIII and MACT, Subpart ZZZZ.

f. Scheduled and unscheduled maintenance, and operator training.

g. 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.
(9VAC5-80-490 and Condition 70 of the March 9, 2022 Permit)

Miscellaneous Process Equipment Requirements – Circuit Breakers and 10-Cell Mechanical Draft Cooling Tower

(CB1, MCT1-10)

Limitations

57. **Miscellaneous Process Equipment Requirements (MCT1-10) – Emission Controls** - Particulate matter emissions from the 10-cell mechanical draft cooling tower (MCT1 – MCT10) shall be controlled to a drift rate of 0.0005 percent of the circulating water flow and a total dissolved solids content of the cooling water of no more than 5,000 ppm total dissolved solids.
(9VAC5-80-490 and Condition 26 of the March 9, 2022 Permit)

58. **Miscellaneous Process Equipment Requirements (CB1) – Emission Controls** - Greenhouse gas emissions (including SF_6) from the electrical circuit breakers (CB1) shall be controlled by an enclosed circuit breaker, with a maximum annual leakage rate of 1.0 percent, and a low-pressure detection system (with alarm). The low-pressure detection system shall be in operation when the circuit breakers are in use.
(9VAC5-80-490 and Condition 28 of the March 9, 2022 Permit)

59. **Miscellaneous Process Equipment Requirements (MCT1-10) – Emission Limits** - Emissions from the 10-cell mechanical draft cooling tower (MCT1 – MCT10) shall not exceed the limits specified below:

Pollutant	Lb/hr	Tons/year	Basis
PM-10 (includes filterable and condensable)	1.85	8.11	PSD BACT
PM-2.5 (includes filterable and condensable)	0.57	2.52	Minor NSR BACT

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 57 and 60. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 41 of the March 9, 2022 Permit)

Monitoring

60. **Miscellaneous Process Equipment Requirements (MCT1-10) – Dissolved Solids Monitoring** - The facility shall sample the water used by the 10-cell mechanical draft cooling tower (MCT1 – MCT10) for total dissolved solids (TDS) at a frequency of not less than once per month to ensure compliance with the TDS in Condition 57. If the TDS sampling demonstrates compliance for three years of cooling tower operation, then the permittee can request a reduction in the sampling frequency (*Note: DEQ NRO Air Compliance Manager granted a request from Panda Stonewall LLC to reduce the sampling frequency for TDS from monthly to quarterly on October 2, 2019 after the facility demonstrated compliance for three years – see* Appendix B*)*. Samples taken as required by this permit shall be analyzed in accordance with 1 VAC 30-45, Certification

for Noncommercial Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.
(9VAC5-80-490, Condition 27 of the March 9, 2022 Permit, and communication dated October 2, 2019 from DEQ NRO Compliance Manager to Panda Stonewall granting a reduction in sampling frequency)

61. **Miscellaneous Process Equipment Requirements (CB1) – GHG Monitoring** – Greenhouse gas emissions (including SF_6) from the electrical circuit breakers (CB1) shall be monitored in accordance with the requirements of the Mandatory Greenhouse Gas Reporting Rule for Electrical Transmission and Distribution Equipment Use (40 CFR Part 98, Subpart DD).
(9VAC5-80-490 and Condition 28 of the March 9, 2022 Permit)

Recordkeeping

62. **Miscellaneous Process Equipment Requirements (CB1, MCT1-10) - On Site Records** - 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 Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

    a. Emissions calculations sufficient to verify compliance with the annual emission limits in Condition 59, calculated monthly as the sum of each consecutive 12-month period. Calculation methods shall be approved by the Regional Air Compliance Manager of DEQ's NRO.

    b. Results of monitoring SF_6 from the Circuit Breakers (CB1) in Condition 61 to verify compliance with Condition 58.

    c. TDS sampling results from the cooling water used by the 10-cell mechanical draft cooling tower as per Condition 60.

    d. Scheduled and unscheduled maintenance, and operator training.

    e. Manufacturer's instructions for proper operation of equipment.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-490 and Condition 70 of the March 9, 2022 Permit)

Facility Wide Conditions

Limitations

63. **Facility Wide Requirements – Emission Limits –** Emissions from the facility shall not exceed the limits specified below:

Air Pollutant	Annual Emissions tons/year
Oxides of Nitrogen (as NO_2)	160.7
Carbon Monoxide (CO)	133.9
Volatile Organic Compounds (VOC)	49.9
PM-10 (includes filterable and condensable)	103.5

Air Pollutant	Annual Emissions tons/year
PM-2.5 (includes filterable and condensable)	97.9
Sulfur Dioxide (SO_2)	5.31
Greenhouse Gases (GHG) Carbon Dioxide Equivalent (CO_2e)	2,446,255

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limit may be considered credible evidence of the exceedance of emission limits. Annual emission limits shall be calculated as the sum of each consecutive 12-month period.
(9VAC5-80-490 and Condition 42 of the March 9, 2022 Permit)

64. **Facility Wide Requirements – Compliance** – All correspondence to DEQ concerning compliance with this permit shall be submitted to the following address:

Regional Air Compliance Manager
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Contact the Regional Air Compliance Manager of the DEQ's NRO at (703) 583-3800 for electronic submittal requests.
(9VAC5-80-490 and Condition 57 of the March 9, 2022 Permit)

65. **Facility Wide Requirements – Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9VAC5-80-490 and Condition 79 of the March 9, 2022 Permit)

Recordkeeping and Reporting

66. **Facility Wide Requirements –Recordkeeping** – The permittee shall maintain at the permitted facility a copy of the following:

a. Identification of each source from which NOx emission offsets were obtained. Identification shall include the name, address, and Universal Transverse Mercator (UTM) coordinates of the facility and any identification number assigned to the facility by the air pollution control entity that regulates it.

b. Certification Document from each air pollution control agency, and any supporting documentation, for any NOx emission offsets secured from outside of the Commonwealth of Virginia.

c. Emission calculations sufficient to verify compliance with the facility-wide annual emission limits in Condition 63, calculated monthly as the sum of each consecutive

12-month period. Calculation methods shall be approved by the Regional Air Compliance Manager of the DEQ's NRO.

d. For any bypass, malfunction, shutdown or failure of the facility or its air pollution control equipment that results in excess emissions for more than one hour: the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record. (9VAC5-20-180 J)

(9VAC5-80-490 and Conditions 45, 70, and 76 of the March 9, 2022 Permit)

67. **Facility Wide Requirements – Reporting** – Monitoring reports, including any permit deviations, as required by Condition 77, shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 64. (9VAC5-80-490)

Testing

68. **Facility Wide Conditions - Testing** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Test ports shall be provided in accordance with the applicable performance specification in 40 CFR Part 60, Appendices A and B.
(9VAC5-80-490 and Condition 55 of the March 9, 2022 Permit)

69. **Facility Wide Conditions – Testing** – Upon request by DEQ, the permittee shall conduct additional performance tests to determine compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9VAC5-80-490 and Condition 69 of the March 9, 2022 Permit)

70. **Facility Wide Conditions - Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate methods in accordance with procedures approved by the DEQ.
(9VAC5-80-490)

Insignificant Emission Units

71. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit ID	Emission Unit Description	Citation	Pollutant Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
AST1	Above ground aqueous ammonia storage tank	5-80-720.B.2	Ammonia	12,000-gallon storage capacity
AST2	Above ground diesel storage tank for EG1	5-80-720.B.2	VOC	1,250-gallon storage capacity

Emission Unit ID	Emission Unit Description	Citation	Pollutant Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
AST3	Above ground diesel storage tank for EFP1	5-80-720.B.2	VOC	300-gallon storage capacity

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-490.
(9VAC5-80-490)

Permit Shield & Inapplicable Requirements

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

Citation	Title of Citation	Description of Applicability
40 CFR 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Source Combustion Turbines	Applies at major sources of HAPs: The facility is not a major source of HAPs so the combustion turbines (CT1, CT2) are not subject to any requirements in this regulation.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	This applies to major HAP sources. This facility is an area source of HAP.
40 CFR 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants for Coal and Oil-Fired Electric Utility Steam Generating Units.	The combustion turbines (CT1, CT2) and auxiliary boiler (AB1) are fired with natural gas only.
40 CFR 63 Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers – Area Sources	Applies to boilers at area sources of HAP. This facility is an area HAP source, however, the auxiliary boiler (AB1) is exempt under 40 CFR 63.11195. Process heaters (FG1) and combustion turbines (CT1, CT2) are not subject to this subpart.
40 CFR 60 Subpart Da	Standards of Performance for Electric Utility Steam Generating Units	The duct-fired HRSG (DB1, DB2) are subject to NSPS Subpart KKKK so they are not subject to NSPS Subpart Da, as perm 40 CFR 60.40 Da.
40 CFR 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	The auxiliary boiler (AB1) and fuel gas heater (FG1) are not subject to this subpart because the heat input for those units is less than 100 mmBtu/hr.
40 CFR 60 Subpart GG	Standards of Performance for Stationary Gas Turbines	This subpart applies to combustion turbines constructed prior to February 2005. CT1 and CT2 were constructed in 2015.
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984	Applies to VOC storage vessels: The diesel fuel storage tanks (AST2, AST3) hold liquids with a vapor pressure less than 3.5 kPa so they are not subject to this regulation.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act or (ii) the DEQ pursuant to §10.1-1307.3 or §10.1-1315 of the Virginia Air Pollution Control Law.
(9VAC5-80-490 and 9VAC5-80-500)

General Conditions

73. **General Conditions - Federal Enforceability -** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-490)

74. **General Conditions – Permit Expiration**

a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-430, the right of the facility to operate shall be terminated upon permit expiration.

b. 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.

c. 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 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-510.

d. In accordance with 9VAC5-80-430F.7.d, a complete acid rain permit application shall be binding on the owners and operators and the designated representative of the affected source and the affected units covered by the permit application and shall be enforceable as an acid rain permit from the date of submission of the permit application until the issuance or denial of such permit as a final agency action subject to judicial review.

e. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-430 for a renewal permit, except in compliance with a permit issued under Article 3, Part II of 9VAC5 Chapter 80.

f. If an applicant submits a timely and complete application under section 9VAC5-80-430 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

9VAC5-80-500, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

g. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-430 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-430 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.

(9VAC5-80-490, 9VAC5-80-430, and 9VAC5-80-530)

75. **General Conditions -Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements.

b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-490)

76. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9VAC5-80-490)

77. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ (electronically, if approved) no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-430 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; and

b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

i. Exceedances 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."

(9VAC5-80-490)

78. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ, no later than March 1 each calendar year, a certification of compliance with all terms and conditions of this permit, including emission limitation standards or work practices for the period ending December 31. The report may be submitted electronically, if approved. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

b. The identification of each term or condition of the permit that is the basis of the certification.

c. The compliance status.

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

e. Consistent with subsection 9VAC5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

f. Such other facts as the permit may require to determine the compliance status of the source; and

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
(9VAC5-80-490)

79. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO within four daytime business hours after discovery of any deviations from permit requirements that 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 (electronically, if approved) explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the

permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 77 of this permit.
(9VAC5-80-490)

80. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of the DEQ's NRO of such failure or malfunction and within 14 days provide a written statement (electronically, if approved) giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of the DEQ's NRO.
(9VAC5-80-490 and 9VAC5-20-180 C)

81. **General Conditions - Failure/Malfunction Reporting** - The emission units that have continuous monitors subject to 9VAC5-50-50 C are not subject to the 14-day written notification.
(9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

82. **General Conditions - Failure/Malfunction Reporting** - The emission units subject to the reporting and the procedure requirements of 9VAC5-50-50 C are the combustion turbines (CT1, CT2) and associated duct burners (DB1, DB2).
(9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

83. **General Conditions - Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board quarterly (electronically, if approved). All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:

    a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions.

    b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

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

All malfunctions of emission units not subject to 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9VAC5-80-490, 9VAC5-20-180 C and 9VAC5-50-50)

84. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-490)

85. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-490)

86. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-490)

87. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-360, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC5-80-490, 9VAC5-80-550 and 9VAC5-80-660)

88. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-490)

89. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for

information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-490)

90. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-430 G.
(9VAC5-80-490)

91. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emission fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.
(9VAC5-80-490, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

92. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land.

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition.

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations.

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

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

    (9VAC5-50-90 and 9VAC5-80-490)

93. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown 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.
(9VAC5-50-20 E and 9VAC5-80-490)

94. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-500 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 9VAC5 Chapter 80, Article 3.
(9VAC5-80-490)

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

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

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

(9VAC5-80-490)

96. **General Conditions - Reopening for Cause** - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-430 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-490 D.

(9VAC5-80-490)

97. **General Conditions - Permit Availability** - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-490 and 9VAC5-80-510)

98. **General Conditions - Transfer of Permits –**

a. No person shall transfer a permit from one location to another.

b. 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 9VAC5-80-560.

c. 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 9VAC5-80-560.

(9VAC5-80-490 and 9VAC5-80-520)

99. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 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 grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-490, 9VAC5-80-550 and 9VAC5-80-660)

100. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-490 and 9VAC5-80-430)

101. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or

established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (9VAC5-80-490 and 40 CFR Part 82, Subparts A-F)

102. **General Conditions - 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 Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-490)

103. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9VAC5-80-490 and 40 CFR Part 68)

104. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-490)

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

a. All terms and conditions required under 9VAC5-80-490, except subsection N, shall be included to determine compliance.

b. The permit shield described in 9VAC5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.

c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-360 through 9VAC5-80-700.

(9VAC5-80-490)

Title IV (Phase II Acid Rain Program) Permit Allowances and Requirements

106. **Phase II Acid Rain Program - Statutory and Regulatory Authorities** - In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) Final Full Approval of the Operating Permits Program (Titles IV and V) published in the Federal Register December 4, 2001, Volume 66, Number 233, Rules and Regulations, Pages 62961-62967 and effective November 30, 2001, and Title 40, the Code of Federal Regulations §§72.1 through 76.15, the Commonwealth of Virginia Department of Environmental Quality (DEQ) issues this

permit pursuant to 9VAC5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Federal Operating Permit Article 3). (9VAC5-80-490)

107. **Phase II Acid Rain Program - Permit Requirements**

a. The designated representative of each affected source and each affected unit at the source shall:

i. Submit a complete Acid Rain Permit application and acid rain compliance plan under 40 CFR Part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

ii. Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.

b. The owners and operators of each affected source and each affected unit at the source shall:

i. Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

ii. Have an Acid Rain Permit.

(9VAC5-80-420, 9VAC5-80-430, 9VAC5-80-490 and 40 CFR Part 72.9(a))

108. **Phase II Acid Rain Program - Monitoring Requirements**

a. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75.

b. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

c. The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the federal Clean Air Act and other provisions of the operating permit for the source.

(9VAC5-80-490 and 40 CFR 72.9(b))

109. **Phase II Acid Rain Program - Sulfur Dioxide Requirements -** The owners and operators of each source and each affected unit at the source shall:

a. Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

b. SO_2 Allowance Allocations for affected units: None. Because Emission Units CT1 and CT2 were not eligible for SO_2 allowance allocations by the U.S. EPA under Section 405 of the Clean Air Act and the Acid Rain Program, no allocations were assigned in 40 CFR Part 73, Table 2.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

110. **Phase II Acid Rain Program – Sulfur Dioxide Requirements** - SO_2 allowances may be acquired from other sources in addition to those allocated by U.S. EPA. No revision to this permit is necessary in order for the owners and operators of this unit to hold additional allowances recorded in accordance with 40 CFR Part 73. The owners and operators of this unit remain obligated to hold sufficient allowances to account for SO_2 emissions from this unit in accordance with 40 CFR 72.9(c)(1).
(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

111. **Phase II Acid Rain Program – Sulfur Dioxide Requirements**

a. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the federal Clean Air Act.

b. An affected unit shall be subject to the requirements under 9VAC5-80-420 C.1.as follows:

i. Starting January 1, 1995, an affected unit under 9VAC5-80-380 A.2.; or

ii. Starting on the later of January 1, 1995, in accordance with 40 CFR 72.41 and 72.43, an affected unit under 40 CFR 72.6(a)(2) or (3) that is a substitution or compensating unit; or

iii. Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2) that is not a substitution or compensating unit; or

iv. Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 9VAC5-80-380 A.3. that is not a substitution or compensating unit.

c. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

d. An allowance shall not be deducted in order to comply with the sulfur dioxide requirements of 40 CFR 72.9(c)(1)(i) prior to the calendar year for which the allowance was allocated.

e. An allowance allocated by the EPA Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

f. An allowance allocated by the EPA Administrator under the Acid Rain Program does not constitute a property right.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(c))

112. **Phase II Acid Rain Program - Nitrogen Oxides Requirements** - The owners and operators of CT1 and CT2 shall comply with the applicable Acid Rain emissions limitation for NO_X. NO_X Requirements: None. The units do not burn coal so there are no NO_X emission limits.
(9VAC5-80-490 and 40 CFR 72.9(d))

113. P**hase II Acid Rain Program - Excess Emissions Requirements**

a. The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.

b. The owners and operators of an affected source that has excess emissions in any calendar year shall:

i. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and

ii. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(e))

114. **Phase II Acid Rain Program - Recordkeeping and Reporting Requirements**

a. Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

i. The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

ii. All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

iii. Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

iv. Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

b. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(f))

115. **Phase II Acid Rain Program - Liability**

a. Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 9VAC5-80-390 or 9VAC5-80-400 and 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the federal Clean Air Act and by the board pursuant to §§ 10.1-1316 and 10.1-1320 of the Code of Virginia.

b. Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the federal Clean Air Act and 18 U.S.C. 1001 and by the board pursuant to §§ 10.1-1316 and 10.1-1320 of the Code of Virginia.

c. No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

d. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

e. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

f. Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

g. Each violation of a provision of the Acid Rain Program regulations (40 CFR Parts 72, 73, 74, 75, 76, 77, and 78) by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the federal Clean Air Act.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(g))

116. **Phase II Acid Rain Program - Effect on Other Authorities** - No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 9VAC5-80-390 or 9VAC5-80-400 and 40 CFR 72.7 or 72.8 shall be construed as:

a. Except as expressly provided in Title IV of the federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other

provision of the federal Clean Air Act, including the provisions of title I of the federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

b. Limiting the number of allowances a source can hold; *provided,* that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the federal Clean Air Act;

c. Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

d. Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

e. Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR 72.9(h))

Cross State Air Pollution Rule (CSAPR)

The CSAPR subject units, and the unit-specific monitoring provisions at this source, are identified in the following table. These units are subject to the requirements for the CSAPR NO_X Annual Trading Program, CSAPR SO_2 Group 1 Trading Program, and/or CSAPR NO_X Ozone Season Group 3 Trading Program.

Unit ID Potomac Energy Center: Units CT1, CT2

Parameter	**Continuous emission monitoring system (CEMS) requirements pursuant to 40 CFR Part 75, subpart B (for SO_2 monitoring) and 40 CFR Part 75, subpart H (for NO_X monitoring)**	**Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, appendix D**	**Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR Part 75, appendix E**	**Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19**	**EPA-approved alternative monitoring system requirements pursuant to 40 CFR Part 75, Subpart E**
SO_2	No	Yes	N/A	N/A	N/A
NO_X	Yes	N/A	N/A	N/A	N/A
Heat input	No	Yes	N/A	N/A	N/A

117. **CSAPR** – The above descriptions of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (CSAPR NO_x Annual Trading Program), 97.630 through 97.635 (CSAPR SO_2 Group 1 Trading Program), and 97.1030 through 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The monitoring, recordkeeping and reporting requirements applicable

to each unit are included below in the standard conditions for the applicable CSAPR trading programs (Conditions 118 through 124).
(9VAC5-80-490 and 40 CFR 97)

118. **CSAPR** – Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website.
(9VAC5-80-490 and 40 CFR 97)

119. **CSAPR** – Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), 97.635 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website.
(9VAC5-80-490 and 40 CFR 97)

120. **CSAPR** – Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1030 through 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (CSAPR NO_x Annual Trading Program), and/or 97.1035 (CSAPR NO_x Ozone Season Group 3 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on EPA's website.
(9VAC5-80-490 and 40 CFR 97)

121. **CSAPR** – The descriptions of monitoring applicable to a unit included above meet the requirement of 40 CFR 97.430 through 97.434 (CSAPR NO_x Annual Trading Program), 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program), and/or 97.1030 through 97.1034 (CSAPR NO_x Ozone Season Group 3 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add to or change these units' monitoring system descriptions.
(9VAC5-80-490 and 40 CFR 97)

CSAPR NOx Annual Trading Program requirements (40 CFR 97.406)

122. **CSAPR NOx Annual Trading Program** - The following conditions must be adhered to for CT1 & CT2, which are subject to the CSAPR NO_x Annual Trading Program:

a. Designated representative requirements. - The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

b. Emissions monitoring, reporting, and recordkeeping requirements.

i. The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

ii. The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under Condition 122.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. NOx emissions requirements.

i. CSAPR NO_x Annual emissions limitation.

(a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Annual source and each CSAPR NOx Annual unit at the source shall hold, in the source's compliance account, CSAPR NOx Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NOx emissions for such control period from all CSAPR NOx Annual units at the source.

(b) If total NOx emissions during a control period in a given year from the CSAPR NOx Annual units at a CSAPR NOx Annual source are in excess of the CSAPR NOx Annual emissions limitation set forth in Condition 122.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR NOx Annual unit at the source shall hold the CSAPR NOx Annual allowances required for deduction under 40 CFR 97.424(d); and

(ii) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period

shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

ii. CSAPR NO_x Annual assurance provisions.

(a) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such NOx emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NOx emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR NO_x Annual allowances required under Condition 122.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).

(d) It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Annual units at CSAPR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR NO_x Annual allowances for a control period in a given year in accordance with Conditions 122.c.ii(a) through 122.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with Conditions 122.c.ii(a) through 122.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

iii. Compliance periods.

(a) A CSAPR NO_x Annual unit shall be subject to the requirements under Condition 122.c above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

(b) A CSAPR NO_x Annual unit shall be subject to the requirements under Condition 122.c.ii above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

iv. Vintage of allowances held for compliance.

(a) A CSAPR NO_x Annual allowance held for compliance with the requirements under Condition 122.c.i(a) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR NO_x Annual allowance held for compliance with the requirements under Condition 122.c.i(b)(i) and 122.c.ii(a) through 122.c.ii(c) above for a control period in a given year must be a CSAPR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.

vi. Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR NOx Annual Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to

the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR NO_x Annual allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.

ii. A description of whether a unit is required to monitor and report NOx emissions using a continuous emissions monitoring system (under Subpart H of 40 CFR 75), an excepted monitoring system (under Appendices D and E to 40 CFR 75), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under Subpart E of 40 CFR 75) in accordance with 40 CFR 97.430 through 97.435 may be added to, or changed in, a Title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This Condition explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of five years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program.

ii. The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR parts 70 and 71.

f. Liability.

i. Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NOx Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source.

ii. Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NOx Annual unit or the designated representative of a CSAPR NO_x Annual unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. No provision of the CSAPR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Annual source or CSAPR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.406)

CSAPR SO_2 Group 1 Trading Program requirements (40 CFR 97.606)

123. **CSAPR SO_2 Group 1 Trading Program** - The following conditions must be adhered to for CT1 & CT2, which are subject to the CSAPR SO_2 Group 1 Trading Program:

a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

b. Emissions monitoring, reporting, and recordkeeping requirements.

i. The owners and operators, and the designated representative, of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

ii. The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO_2 Group 1 emissions limitation and assurance provisions under Condition 123.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. SO_2 emissions requirements.

i. CSAPR SO_2 Group 1 emissions limitation.

(a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all CSAPR SO_2 Group 1 units at the source.

(b) If total SO_2 emissions during a control period in a given year from the CSAPR SO_2 Group 1 units at a CSAPR SO_2 Group 1 source are in excess of the CSAPR SO_2 Group 1 emissions limitation set forth in Condition 123.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall hold the CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

(ii) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

ii. CSAPR SO_2 Group 1 assurance provisions.

(a) If total SO_2 emissions during a control period in a given year from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative’s share of such SO_2 emissions during such control period exceeds the common designated representative’s assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO_2 Group 1 allowances

available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR SO_2 Group 1 allowances required under Condition 123.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).

(d) It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO_2 emissions from the CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR SO_2 Group 1 allowances for a control period in a given year in accordance with Conditions 123.c.ii(a) through 123.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR SO_2 Group 1 allowance that the owners and operators fail to hold for such control period in accordance with Conditions 123.c.ii(a) through 123.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.

iii. Compliance periods.

(a) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under Condition 123.c.i above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

(b) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under Condition 123.c.ii above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

iv. Vintage of allowances held for compliance.

(a) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under Condition 123.c.i(a) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under Conditions 123.c.i(b)(i) and 123.c.ii(a) through 123.c.ii(c) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR SO_2 Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.

vi. Limited authorization. A CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR SO_2 Group 1 allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.

ii. A description of whether a unit is required to monitor and report SO_2 emissions using a continuous emission monitoring system (under subpart B of 40 CFR 75),

an excepted monitoring system (under appendices D and E to 40 CFR 75), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under Subpart E of 40 CFR 75) in accordance with 40 CFR 97.630 through 97.635 may be added to, or changed in, a Title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This Condition explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of five years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO_2 Group 1 Trading Program.

ii. The designated representative of a CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the CSAPR SO_2 Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR parts 70 and 71.

f. Liability.

i. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 source or the designated representative of a CSAPR SO_2

Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO_2 Group 1 units at the source.

ii. Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 unit or the designated representative of a CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. No provision of the CSAPR SO_2 Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO_2 Group 1 source or CSAPR SO_2 Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.606)

CSAPR NOx Ozone Season Group 3 Trading Program requirements (40 CFR 97.1006)

124. **CSAPR NO_x Ozone Season Group 3 Trading Program** - The following conditions must be adhered to for CT1 & CT2, which are subject to the CSAPR NO_x Group 3 Trading Program.

a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.1013 through 97.1018.

b. Emissions monitoring, reporting, and recordkeeping requirements.

i. The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.1030 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.1031 (initial monitoring system certification and recertification procedures), 97.1032 (monitoring system out-of-control periods), 97.1033 (notifications concerning monitoring), 97.1034 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.1035 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

ii. The emissions and heat input data determined in accordance with 40 CFR 97.1030 through 97.1035 shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 3 allowances under 40 CFR 97.1011 and 97.1012 and to determine compliance with the CSAPR NO_x Ozone Season Group 3 emissions limitation and assurance provisions under Condition 124.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location

determined in accordance with 40 CFR 97.1030 through 97.1035 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c. NO_x emissions requirements.

i. CSAPR NO_x Ozone Season Group 3 primary and secondary emissions limitation.

(a) Primary emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Ozone Season Group 3 source and each CSAPR NOx Ozone Season Group 3 unit at the source shall hold, in the source's compliance account, CSAPR NOx Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1024(a) in an amount not less than the amount determined under 40 CFR 97.1024(b), comprising the sum of:

(i) The tons of total NOx emissions for such control period from all CSAPR NOx Ozone Season Group 3 units at the source, plus

(ii) Two times the excess, if any over 50 tons of the sum, for all CSAPR NOx Ozone Season Group 3 units at the source and all calendar days of the control period, of any NOx emissions from such a unit on any calendar day of the control period exceeding the NOx emissions that would have occurred on that calendar day if the unit had combusted the same daily heat input and emitted at any backstop daily NOx emissions rate applicable to the unit for that control period.

(b) Exceedances of primary emissions limitation. If total NOx emissions during a control period in a given year from the CSAPR NOx Ozone Season Group 3 units at a CSAPR NOx Ozone Season Group 3 source are in excess of the CSAPR NOx Ozone Season Group 3 primary emissions limitation set forth in Condition 124.c.i(a) above, then:

(i) The owners and operators of the source and each CSAPR NOx Ozone Season Group 3 unit at the source shall hold the CSAPR NOx Ozone Season Group 3 allowances required for deduction under 40 CFR 97.1024(d); and

(ii) The owners and operators of the source and each CSAPR NOx Ozone Season Group 3 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR 97 Subpart GGGGG and the Clean Air Act.

(c) Secondary emissions limitation. The owner of operator of a CSAPR NOx Ozone Season Group 3 unit subject to an emissions limitation under 40 CFR 97.1025(c)(1) shall not discharge, or allow to be discharged, emissions of NOx to the atmosphere during a control period in excess of the tonnage amount calculated in accordance with 40 CFR 97.1025(c)(2).

(d) Exceedances of secondary emissions limitation. If total NO_x emissions during a control period in a given year from a CSAPR NO_x Ozone Season Group 3 unit are in excess of the CSAPR NO_x Ozone Season Group 3 secondary emissions limitation set forth in Condition 124.c.i(c), then the owners and operators of the unit and the source at which the unit is located shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR 97 Subpart GGGGG and the Clean Air Act.

ii. CSAPR NO_x Ozone Season Group 3 assurance provisions.

(a) If total NO_x emissions during a control period in a given year from all base CSAPR NO_x Ozone Season Group 3 units at base CSAPR NO_x Ozone Season Group 3 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 3 allowances available for deduction for such control period under 40 CFR 97.1025(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.1025(b), of multiplying—

(i) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and

(ii) The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state for such control period exceed the state assurance level.

(b) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 3 allowances required under Condition 124.c.ii(a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(c) Total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state CSAPR NO_x

Ozone Season Group 3 trading budget under 40 CFR 97.1010(a) the state's variability limit under 40 CFR 97.1010(e),

(d) It shall not be a violation of 40 CFR part 97, Subpart GGGGG or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Ozone Season Group 3 units at CSAPR NO_x Ozone Season Group 3 sources in the state during a control period exceeds the common designated representative's assurance level.

(e) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 3 allowances for a control period in a given year in accordance with Conditions 124.c.ii(a) through 124.c.ii(c) above,

(i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(ii) Each CSAPR NO_x Ozone Season Group 3 allowance that the owners and operators fail to hold for such control period in accordance with Conditions 124.c.ii(a) through 124.c.ii(c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart GGGGG and the Clean Air Act.

iii. Compliance periods.

(a) A CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under Conditions 124.c.i(a) and 124.c.i(b) and 124.c.ii above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.

(b) A CSAPR NO_x Ozone Season Group 3 unit shall be subject to the requirements under Conditions 124.c.i(c) and 124.c.i(d) above for the control period starting on the later of May 1, 2021 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.1030(b) and for each control period thereafter.

iv. Vintage of CSAPR NOx Ozone Season Group 3 allowances held for compliance.

(a) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under Condition 124.c.i(a) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated for such control period or a control period in a prior year.

(b) A CSAPR NO_x Ozone Season Group 3 allowance held for compliance with the requirements under Conditions 124.c.i(b)(i) and 124.c.ii(a) through 124.c.ii(c) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 3 allowance that was allocated for a control period in a

prior year or the control period in the given year or in the immediately following year.

v. Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 3 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart GGGGG.

vi. Limited authorization. A CSAPR NO_x Ozone Season Group 3 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(a) Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 3 Trading Program; and

(b) Notwithstanding any other provision of 40 CFR part 97, subpart GGGGG, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

vii. Property right. A CSAPR NO_x Ozone Season Group 3 allowance does not constitute a property right.

d. Title V permit revision requirements.

i. No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 3 allowances in accordance with 40 CFR part 97, subpart GGGGG.

ii. A description of whether a unit is required to monitor and report NOx emissions using a continuous emission monitoring system (under Subpart H of 40 CFR 75), an excepted monitoring system (under Appendices D and E to 40 CFR 75), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under Subpart E of 40 CFR 75) in accordance with 40 CFR 97.1030 through 97.1035 may be added to, or changed in, a Title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This Condition explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B)

e. Additional recordkeeping and reporting requirements.

i. Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of five years from the date the

document is created. This period may be extended for cause, at any time before the end of five years, in writing by the Administrator.

(a) The certificate of representation under 40 CFR 97.1016 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 3 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.1016 changing the designated representative.

(b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart GGGGG.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 3 Trading Program.

ii. The designated representative of a CSAPR NO_x Ozone Season Group 3 source and each CSAPR NO_x Ozone Season Group 3 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 3 Trading Program, except as provided in 40 CFR 97.1018. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR parts 70 and 71.

f. Liability.

i. Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 source or the designated representative of a CSAPR NO_x Ozone Season Group 3 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 3 units at the source.

ii. Any provision of the CSAPR NO_x Ozone Season Group 3 Trading Program that applies to a CSAPR NO_x Ozone Season Group 3 unit or the designated representative of a CSAPR NO_x Ozone Season Group 3 unit shall also apply to the owners and operators of such unit.

g. Effect on other authorities. - No provision of the CSAPR NO_x Ozone Season Group 3 Trading Program or exemption under 40 CFR 97.1005 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 3 source or CSAPR NO_x Ozone Season Group 3 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(9VAC5-80-490 and 40 CFR 97.1006)

State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements and are not subject to the requirements of 9VAC5-80-690 concerning review of proposed limits by the EPA and draft permits by affected states.

125. **SOE Emission Limits** – Emissions from the electric power generation facility shall not exceed the limits specified below:

Pollutant	CAS#	lb/hr	tons/yr
Acrolein	107-02-8	2.31 E-02	9.15 E-02
Formaldehyde	50-00-0	9.76 E-01	3.71 E-00
Cadmium	7440-43-9	6.48 E-03	2.22 E-02
Chromium	7440-47-3	8.25 E-03	2.82 E-02
Nickel	7440-02-0	1.24 E-02	4.24 E-02

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. 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 the emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 5, 36, 47, and 48.
(9 VAC 5-60-320 and 9 VAC 5-80-1625G)

126. **SOE Onsite Records** – 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 Northern Regional Office. These records shall include, but are not limited to the average hourly, monthly, and annual emissions (in pounds and tons) listed in Condition 125 for each toxic compound using the appropriate emission factor from AP-42, [Section 1.4 for natural gas combustion, Section 3.1 for stationary gas turbines, Section 3.3 for gasoline and diesel industrial engines, and Section 3.4 for large stationary dual fuel engines] times the appropriate fuel usage for the period. Hourly emissions shall be calculated monthly. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These records shall be available for inspection by the DEQ and current for at least the most recent five years.
(9 VAC 5-50-50 and 9 VAC 5-80-1625G)

A. Appendix A

SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
   a. Operating rate
   b. Test Methods
   c. Pollutants tested
   d. Test results for each run and the run average
   e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations

B. Appendix B

Panda Stonewall LLC
an affiliate of Panda Power Funds

August 27th, 2019

Mr. R. David Hartshorn
Regional Air Compliance Program Manager
VDEQ Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: **Request for reduction in sampling frequency**
Panda Stonewall, LLC
Panda Stonewall Power Project
Facility ID No.: 51-107-01019
VDEQ PSD/Non-Attainment New Source Review Permit No. 73826

Dear Mr. Hartshorn:

During the inspection audit conducted by Maryann Williams at the Panda Stonewall site on August 13th 2019, it was discussed to reduce the frequency of Visible Emissions Evaluation (VEE) for the Combustion Turbines and also the sampling frequency for Total Dissolved Solids (TDS) from the Ten Cell Mechanical Cooling Tower.

We have been demonstrating compliance with these two conditions since the plant became operational in April 2017 and per the allowable frequency reduction in the permit we are seeking the same.

Per the condition 28, we would like to request reduction in TDS sampling from monthly to quarterly and per condition 66.b. we would like to request reduction in VEE for Combustion Turbine from weekly to monthly.

If you have any questions, please contact me at (703) 779-4101 or mkadon@pandastonewall.com.

Sincerely,

Mark Kadon

Mark Kadon
Designated Representative
Panda Stonewall, LLC

cc: Maryann Vaughn, Air Compliance Inspector, VDEQ-NRO.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

October 2, 2019

Mr. Mark Kadon
Panda Stonewall LLC
44146 Wade Drive
Chantilly, Virginia 20152

RE: Request for Reduction in Monitoring Frequency
Air Facility Registration No. 73826

Dear Mr. Kadon:

DEQ has reviewed the request submitted on August, 27, 2019 to reduce the sampling frequency for total dissolved solids (TSD) from the Ten Cell Mechanical Cooling Tower.

The data collected during the full compliance evaluation indicates that Panda Stonewall LLC has met the requirements to reduce the sampling schedule as set forth in Conditions 28 and 66 of your July 15, 2014 PSD permit. Panda Stonewall LLC may reduce the monitoring frequency of the total dissolved solids of the Ten Cell Mechanical Draft Cooling Tower from monthly to quarterly, as set forth in Condition 28, and may reduce the monitoring frequency of visible emissions from the combustion turbines from weekly to monthly, as set forth in Condition 66.

If you have any questions regarding this letter please contact Maryann Williams at (703)583-3918 or maryann.williams@deq.virginia.gov.

Sincerely,

R. David Hartshorn
Air Compliance Manager