



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

www.deq.virginia.gov

Stefanie K. Taillon
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director

July 10, 2025

Mr. Kyle Middleton
Director of Facility Operations
Capital One Services, Inc.
15000 Capital One Drive
Richmond, VA 23238

Location: Henrico County
Registration No: 52281

Dear Mr. Middleton:

Attached is an administrative amendment to the new source review permit dated April 16, 2024 to construct and operate seven (7) Emergency Generators in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution. This amended permit supersedes your permit dated April 16, 2024.

The Department of Environmental Quality (DEQ) deemed the application complete on June 9, 2025 and has determined that the application meets the requirements of 9 VAC 5-80-1290 A for a significant amendment to a new source review permit.

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 construct and operate shall not relieve Capital One Services, Inc. of the responsibility to comply with all other local, state, and federal permit regulations.

The seven (7) Emergency Generators may be affected facilities under 40 CFR 60, New Source Performance Standards (NSPS), Subpart IIII and/or 40 CFR 63, Maximum Achievable Control Technology, (MACT) Subpart ZZZZ and therefore subject to owner/operator requirements of the NSPS/MACT. Virginia has not accepted delegation of this rule. In summary, the units may be required to comply with certain federal emission standards and operating limitations. DEQ advises you to review each emergency generator for the NSPS/MACT requirements to ensure compliance with applicable emission and operational limitations. As the owner/operator you are also responsible for monitoring, testing, notification, reporting and recordkeeping requirements of the NSPS/MACT. Notifications shall be sent to EPA, Region III.

To review any federal rules referenced in the above paragraph or in the attached permit, the US Government Publishing Office maintains the text of these rules at www.ecfr.gov, Title 40, Part 60 and/or 63.

The 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 DEQ 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 call the regional office at (804) 527-5020.

Sincerely,



James E. Kyle, P.E.
Air Permit Manager

SDU/52281_09_NSR.docx

Attachment: Permit

The following federal regulation can be found at:

<http://www.gpo.gov/fdsys/search/showcitation.action>

40 CFR 60 – NSPS IIII

40 CFR 63, MACT Subpart ZZZZ

Ec: Manager, Enforcement and Compliance (electronic file submission)



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Stefanie K. Taillon
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Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

This permit supersedes your permit dated April 16, 2024.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Capital One Services, Inc.
15000 Capital One Drive
Richmond, VA 23238
Registration No. 52281

is authorized to construct and operate

Seven (7) Emergency Generators

located at

Knolls Building 1 and Knolls 2 Data Center

4871 and 4881 Cox Road, Glen Allen, VA 23060

in accordance with the Conditions of this permit.

Approved on July 9, 2025

A handwritten signature in blue ink, appearing to read "J. Kyle".

James E. Kyle, P.E.
Air Permit Manager

Permit consists of 8 pages.
Permit Conditions 1 to 20.

INTRODUCTION

This permit approval is based on the permit application dated May 5, 2025, December 19, 2023, February 26, 2010, December 9, 2010, additional information supplied January 27, 2011 and permit application dated April 11, 2011, received on April 25, 2011 and additional information supplied on May 12, 2011 and permit application dated August 24, 2016, received on November 22, 2016 and additional information supplied on February 28, 2017 and permit application dated January 25, 2018, received on February 2, 2018 and additional information supplied on March 2, 2018, and permit application dated November 17, 2022, received on November 29, 2022 . Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the DEQ) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

Equipment at this facility consists of the following:

Reference No.	Equipment Description	Rated Capacity	Delegated Federal Requirements
Located at 4881 Cox Road, Knolls 1:			
G-1	Caterpillar Model 3512 Diesel Generator	1,135 kW	N/A
G-2	Caterpillar Model 3512 Diesel Generator	1,135 kW	N/A

Reference No.	Equipment Description	Rated Capacity	Delegated Federal Requirements
Located at 4871 Cox Road, Knolls 2 Data Center:			
G-8/DG#3	Caterpillar Model 3516 Diesel Generator	1,750 kW	N/A
G-9/DG#4	Caterpillar Model 3516 Diesel Generator	1,750 kW	N/A
Located at 4871 Cox Road, Knolls 2 Data Center Addition:			
G-11	Caterpillar Model 3516C Diesel Generator	1,825 kW	N/A
G-12	Caterpillar Model 3516C Diesel Generator	1,825 kW	N/A
G-13	Caterpillar Model 3516C Diesel Generator	1,825 kW	N/A

Specifications included in the above table are for informational purposes only and do not form enforceable terms or conditions of the permit.

PROCESS LIMITATIONS

- Operating limits** - Each generator shall not operate more than 240 hours per year, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
- Emission Controls** - The emissions from each generator shall be controlled by good operating practices. The generators shall be provided with adequate access for inspection.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
- Monitoring Devices** - Each engine-generator set shall be equipped with a non-resettable hour metering device to monitor the operating hours. The non-resettable hour meter used to continuously measure the hours of operation for each engine-generator set shall be observed by the owner with a frequency of not less than once each day the engine-generator set is operated. The owner 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 engine-generator sets are operating.

(9 VAC 5-80-1180 D)

OPERATING/EMISSIONS LIMITATIONS

- Fuel** – The approved fuel for the generators is distillate oil as described in Condition 6. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-1180)

5. **Testing** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 F)

6. **Fuel** -The distillate oil for the emergency generators shall meet the specifications below:

DISTILLATE OIL which meets the ASTM D975 specification for numbers 1 or 2 fuel oil except for the sulfur content which shall be as follows:

Maximum sulfur content per gallon:

(For each shipment):

15 parts per million (ppm)

0.0015% by weight

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

7. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the distillate oil was received;
- c. The quantity of distillate oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D975) for numbers 1 or 2 fuel oil; and
- e. The sulfur content of the distillate oil.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in condition 6. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-1180)

EMISSION LIMITS

8. **Emissions Limits** - Emissions from the operation of the two Caterpillar Model 3512 generators (G-1 and G-2) located at Knolls 1 shall not exceed the limits specified below:

	Per generator:	Combined:
PM-10	1.2 lbs/hr	0.3 tons/yr
Nitrogen Oxides (as NO ₂)	39.9 lbs/hr	9.6 tons/yr
Carbon Monoxide	9.1 lbs/hr	2.2 tons/yr

Volatile Organic Compounds	1.2 lbs/hr	0.3 tons/yr
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(9 VAC 5-80-1180 and 9 VAC 5-50-260)

9. **Emissions Limits** - Emissions from the operation of the two Caterpillar Model 3516 generators (G-8/DG#3 and G-9/DG#4) located at Knolls 2 Data Center shall not exceed the limits specified below:

	Per generator:	Combined:
PM-10	1.6 lbs/hr	1.2 tons/yr
Nitrogen Oxides (as NO ₂)	55.3 lbs/hr	39.8 tons/yr
Carbon Monoxide	12.7 lbs/hr	9.1 tons/yr
Volatile Organic Compounds	1.6 lbs/hr	1.2 tons/yr

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

10. **Emissions Limits** - Emissions from the operation of three Caterpillar Model 3516C generators (G-11 – G-13) located at Knolls 2 Data Center Addition shall not exceed the limits specified below:

	Per generator:	Combined:
PM-10	4.1 lbs/hr	1.5 tons/yr
Nitrogen Oxides (as NO ₂)	32.9 lbs/hr	11.9 tons/yr
Carbon Monoxide	21.8 lbs/hr	7.9 tons/yr
Volatile Organic Compounds	3.6 lbs/hr	1.3 tons/yr

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

11. **Visible Emissions Limit** - Visible emissions from each generator 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. This condition applies at all times except during start-up, shutdown, or malfunction.

(9 VAC 5-50-260 and 9 VAC 5-80-1180)

RECORDS

12. **On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

- Annual hours of operation for each emergency generator, 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.

- b. Fuel supplier certifications from oil shipments purchased, indicating the sulfur content per shipment.
- c. Hour log required by condition 3 of this permit.

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

(9 VAC 5-50-50 and 5-80-1180)

GENERAL CONDITIONS

13. Permit Suspension/Revocation - This permit may be suspended or revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard; or
- e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emissions limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

(9 VAC 5-80-1210 G)

14. Right of Entry - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130 and 9 VAC 5-80-1180)

15. **Maintenance/Operating Procedures** - At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the emergency diesel generators (G-1 through G-13):

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

16. **Record of Malfunctions** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.

(9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)

17. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Piedmont Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour. Such notification shall be made no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Piedmont Regional Office.

(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

18. **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.
(9 VAC 5-20-180 I and 9 VAC 5-80-1180)
19. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Piedmont Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)
20. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-1180)