



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

www.deq.virginia.gov

Stefanie K. Taillon
Acting Secretary of Natural and Historic Resources

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

February 14, 2025

Mr. Brian Trombley
Vice President of Construction
CLOP Ashland VA LLC
400 Water St., Suite 200
Excelsior, MN 55331

Location: Hanover County
Registration No.: 53197

Dear Mr. Trombley:

Attached is a permit approval to construct and operate a data center in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on January 23, 2025.

This permit document 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 CLOP Ashland VA LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The proposed diesel emergency engine-generator sets are subject to 40 CFR 63, Maximum Achievable Control Technology, (MACT) Subpart ZZZZ and 40 CFR 60, New Source Performance Standard (NSPS), Subpart IIII. Virginia has not accepted delegation of this rule. In summary, the units are required to comply with certain federal emission standards and operating limitations. DEQ advises you to review the referenced MACT and NSPS to ensure compliance with applicable emission and operational limitations. As the owner/operator you are also responsible for any monitoring, testing, notification, reporting and recordkeeping requirements of the MACT and NSPS. Notifications and reports shall only 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 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 contact the regional office at (804) 527-5020.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Kyle', with a long horizontal flourish extending to the right.

James E. Kyle, P.E., Air Permit Manager
Virginia Department of Environmental Quality
James.Kyle@deq.virginia.gov
Piedmont Regional Office
4949-A Cox Road, Glen Allen, VA 23060

Attachments: Permit

cc: File
DEQ Air Compliance Staff



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Stefanie K. Taillon
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Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

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

CLOP Ashland VA LLC
400 Water Street, Suite 200
Excelsior, MN 55331
Registration No.: 53197

is authorized to construct and operate

seven emergency engine-generator sets at a data center

located at

12174 Washington Highway, Ashland, VA

in accordance with the Conditions of this permit.

Approved on February 14, 2025.

A handwritten signature in blue ink, appearing to read "J. Kyle", written over a horizontal line.

James E. Kyle, P.E.
Air Permit Manager, Department of Environmental Quality

Permit consists of 9 pages.
Permit Conditions 1 to 24.

INTRODUCTION

This permit approval is based on the permit application dated December 16, 2024, including amendment information dated January 14, 2025, and supplemental information dated January 23, 2025. 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 9VAC5-10-10 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 9VAC5-170-60 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.

Equipment List - Equipment at this facility covered by this permit consists of:

Equipment to be Constructed:

Reference No.	Equipment Description	Rated Capacity	Delegated Federal Requirements
00GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
01GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
02GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
03GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
04GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
05GEN-1	Emergency engine-generator set (Kohler KD3000 or equivalent)	3000 kWe	None
HGEN	Emergency engine-generator set (Kohler 500REOZVC or equivalent)	500 kWe	None

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

PROCESS REQUIREMENTS

1. Emission Controls – Nitrogen oxide (NO_x) emissions from the emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) shall be controlled by a turbocharged engine

and aftercooler. The permittee shall maintain documentation that demonstrates the engine control device is enabled on each engine-generator set.
(9VAC5-80-1180 and 9VAC5-50-260)

2. Emission Controls - Nitrogen oxide (NO_x) emissions shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9VAC5-80-1180 and 9VAC5-50-260)
3. Monitoring Devices – Each emergency engine-generator set (00GEN-1 through 05GEN-1, and HGEN) 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 permittee 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 hour meter shall be provided with adequate access for inspection.
(9VAC5-80-1180 D)

OPERATING LIMITATIONS

4. Operation - The permittee shall operate and maintain each emergency engine-generator set (00GEN-1 through 05GEN-1, and HGEN), including the turbocharger and aftercooler, according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9VAC5-80-1180)
5. Emergency Operation - The emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) shall only be operated in the following modes:
 - a. In situations that arise from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:
 - i. A failure of the electrical grid.
 - ii. On-site disaster or equipment failure, or
 - iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
 - iv. For participation in an ISO-declared emergency, where an ISO emergency is:
 - a) An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property.
 - b) Capacity deficiency or capacity excess conditions.

- c) A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel.
- d) Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state, or
- e) An abnormal event external to the ISO service territory that may require ISO action.

b. For periodic maintenance, testing, and operational training.

Total emissions for any 12-month period, calculated as the sum of all emissions from operations under the scenarios above, shall not exceed the annual limits stated in Conditions 9 and 10.

(9VAC5-80-1180)

6. Operating Hours – Each of the emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) shall not operate more than 500 hours per year, including up to 100 hours per year for maintenance checks and readiness testing, 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. Records of hours of operation for each engine-generator set (00GEN-1 through 05GEN-1, and HGEN) shall be kept, as per Condition 14.a.

(9VAC5-80-1180)

7. Fuel - The approved fuel for the emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) is diesel fuel. The diesel fuel shall meet the ASTM D975 specification for S15 diesel fuel oil with a maximum sulfur content per shipment of 0.0015%. A change in the fuel shall be considered a change in the method of operation of the engines and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.

(9VAC5-80-1180 and 9VAC5-50-260)

8. Fuel Certification - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier.
- b. The date on which the diesel fuel was received, and
- c. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel 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 7. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits. Records of fuel certifications shall be kept, as per Condition 14.b.

(9VAC5-80-1180)

EMISSION LIMITS

9. Emission Limits - Emissions from the operation of the six emergency engine-generator sets 00GEN-1 through 05GEN-1 shall not exceed the limits specified below:

	<u>Each unit</u>	<u>Each unit</u>	<u>Combined</u>
PM	1.0 lb/hr	0.3 tons/yr	1.4 tons/yr
PM10	1.0 lb/hr	0.3 tons/yr	1.5 tons/yr
PM2.5	1.0 lb/hr	0.3 tons/yr	1.5 tons/yr
Nitrogen Oxides (as NO ₂)	57.0 lb/hr	14.3 tons/yr	85.5 tons/yr
Carbon Monoxide	13.8 lb/hr	3.5 tons/yr	20.6 tons/yr
Volatile Organic Compounds	2.9 lb/hr	0.7 tons/yr	4.3 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 6, and 13.
 (9VAC5-80-1180 and 9VAC5-50-260)

10. Emission Limits - Emissions from the operation of the emergency engine-generator set HGEN shall not exceed the limits specified below:

PM	0.6 lb/hr	
PM10	0.6 lb/hr	
PM2.5	0.6 lb/hr	
Nitrogen Oxides (as NO ₂)	9.8 lb/hr	2.5 tons/yr
Carbon Monoxide	0.5 lb/hr	

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 Conditions 1, 6, and 13.
 (9VAC5-80-1180 and 9VAC5-50-260)

11. Visible Emission Limit - Visible emissions from the stack of each of the emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) 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, and malfunction. Compliance with this requirement may be determined as stated in Condition Error! Reference source not found..
 (9VAC5-80-1180 and 9VAC5-50-260)

CONTINUING COMPLIANCE DETERMINATION

12. Emissions Testing - The emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) 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. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-50-30 F and 9VAC5-80-1180)
13. Emission Testing/Visible Emissions Evaluation – Upon request by the DEQ, the permittee shall conduct stack tests and/or visible emissions evaluations of the engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Piedmont Regional Office. Results of any tests shall be kept as per Condition 14.g.
(9VAC5-80-1200 and 9VAC5-50-30 G)

RECORDS

14. 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 Piedmont Regional Office. These records shall include, but are not limited to:
 - a. Monthly and annual hours of operation of each emergency engine-generator set (00GEN-1 through 05GEN-1, and HGEN), 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. Reasons for operation for each engine-generator set including, but not limited to, the date, cause of operation, cause of the emergency, and the hours of operation.
 - c. All fuel supplier certifications.
 - d. Engine information including make, model, serial number, model year, maximum engine power (bhp), and engine displacement for each engine-generator set.
 - e. Documentation that demonstrates the emergency engine-generator sets (00GEN-1 through 05GEN-1, and HGEN) operate with a turbocharged engine and aftercooler.
 - f. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for each engine-generator set.
 - g. Results of all stack tests, visible emission evaluations, and visible emission observations.
 - h. Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-1180 and 9VAC5-50-50)

NOTIFICATIONS

15. Initial Notifications - The permittee shall furnish written notification to the Piedmont Regional Office of:
- a. The actual date on which construction of the emergency engine-generator sets commenced within 30 days after such date.
 - b. The actual start-up date of the emergency engine-generator sets within 15 days after such date.
- (9VAC5-50-50 and 9VAC5-80-1180)

GENERAL CONDITIONS

16. Permit Invalidation - This permit to construct the new stationary source shall become invalid, unless an extension is granted by the DEQ, if:
- a. A program of continuous construction is not commenced within 18 months from the date of this permit.
 - b. A program of construction is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of the phased construction of a new stationary source or project.
- (9VAC5-80-1210)
17. 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.
- (9VAC5-80-1210 G)
18. 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.

(9VAC5-170-130 and 9VAC5-80-1180)

19. 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:

- 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.

(9VAC5-50-20 E and 9VAC5-80-1180 D)

20. 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.

(9VAC5-20-180 J and 9VAC5-80-1180 D)

21. 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.

(9VAC5-20-180 C and 9VAC5-80-1180)

22. 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.
(9VAC5-20-180 I and 9VAC5-80-1180)
23. 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.
(9VAC5-80-1240)
24. Permit Copy - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9VAC5-80-1180)