



Commonwealth of Virginia

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
(804) 698-4000

Thomas A. Faha
Regional Director

October 30, 2019

Mr. Victor Semah
Chief Legal Officer
Cyxtera Communications, LLC
45901 Nokes Boulevard
Sterling, VA 20166

Location: Loudoun County
Registration No.: 73160

Dear Mr. Semah:

Attached is a permit to construct and operate a project to install one (1) emergency diesel engine generator set at Cyxtera's data center facility located at 21110 Ridgetop Circle, 45901 and 45845 Nokes Boulevard, Sterling, Virginia (Loudoun County) in accordance with the provisions of the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. This permit supersedes your permit dated January 30, 2014.

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 October 25, 2019

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 Cyxtera Communications, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The proposed and existing diesel engine gen-sets at the facility may be subject to the requirements of 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (MACT) Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary*

Reciprocating Internal Combustion Engines. In summary, the units may be required to comply with certain federal emission standards and operating limitations. The 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, notification, reporting and recordkeeping requirements of the MACT and NSPS. Notifications 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 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 thirty days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

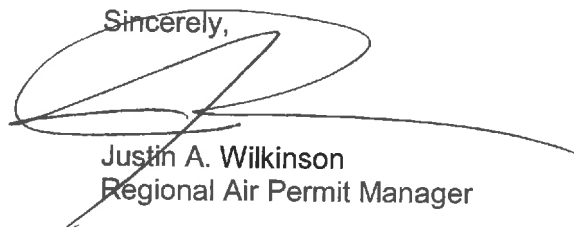
As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, 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 Mr. K. Dean Gossett at (703) 583-3926 or via e-mail at kevin.gossett@deq.virginia.gov.

Sincerely,



Justin A. Wilkinson
Regional Air Permit Manager

TAF/JAW/KDG/ (2019-10-30) 73160 mNSR Permit

Attachment: Permit

cc: Regional Air Compliance Manager (electronic file submission)



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Director
(804) 698-4000

Thomas A. Faha
Regional Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

This permit document supersedes the permit document dated January 30, 2014.

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

Cytxera Communications, LLC
1919 Park Avenue
Weehawken, NJ 07086

Registration No.: 73160
County-Plant No.: 107-01042

is authorized to construct and operate

located at emergency diesel engine generator sets (gen-sets)

21110 Ridgetop Circle, Sterling, Virginia 20166
45901 Nokes Boulevard, Sterling, Virginia 20166
45845 Nokes Boulevard, Sterling, Virginia 20166
(Loudoun County)

in accordance with the Conditions of this permit.

Approved on:

October 30, 2019

A handwritten signature in black ink, appearing to read "Thomas A. Faha", written over a horizontal line.

Thomas A. Faha
Regional Director

Permit consists of 16 pages.
Permit Conditions 1 to 34.

INTRODUCTION

This permit approval is based on and combines permit terms and conditions in accordance with 9 VAC 5-80-1255 from the following permit approvals and the respective permit applications:

Permit Program: Approval/Amendment Date	Application Signature Date	Application Amendment Date	Application Additional Information Received Date
Minor NSR: October 5, 2000	August 14, 2000		
Minor NSR (Sig. Amend.): February 10, 2004	August 27, 2003		October 27, 2003
Minor NSR: June 21, 2007	June 1, 2011		June 4, 2011
Minor NSR: January 19, 2012	October 3, 2011	--	November 8, 2011
Minor NSR: January 30, 2014	November 5, 2013	--	December 6, 2013 December 17, 2013
Minor NSR: October 30, 2019	July 3, 2019	--	October 18, 2019 October 25, 2019

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 5-10-20 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 and the most recent effective date (if different from the date of this combined permit) for a term or 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 or the Board 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 Board) 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.

EQUIPMENT LIST

Equipment to be Constructed:			
Reference No.	Equipment Description	Rated Capacity	Delegated Federal Requirements
DC2&3-EG13	One (1) Caterpillar diesel engine generator set, Model # 3516-C	2500 kW (3634 bhp)	None

Equipment Previously Permitted:				
Reference No.	Equipment Description	Rated Capacity	Delegated Federal Requirements	Original Permit Date
DC4-EG10 thru DC4-EG11	Two (2) Cummins diesel engine generator sets, Model # DQKAB	2000 kW (2919 bhp), each	None	January 30, 2014
DC4-EG 7 thru DC4-EG9	Three (3) Cummins diesel engine generator sets, Model # DQKAB	2000 kW (2919 bhp)	None	January 19, 2012
DC4-EG 1 Thru DC4-EG6	Six (6) Cummins diesel engine generator sets, Model # DQKAB	2000 kW (2919 bhp)	None	July 27, 2007
DC2&3-EG1 Thru DC2&3-EG5	Five (5) Caterpillar diesel engine generator sets, Model # 3512-B	1250 kW (1818 bhp)	None	October 5, 2000
DC2&3-EG6	One (1) Caterpillar diesel engine generator set, Model # 3512-C	1250 kW (2206 bhp)	None	June 20, 2007
DC2&3-EG7 Thru DC2&3-EG12	Six (6) Caterpillar diesel engine generator set, Model # 3516-B	2000 kW (2876 bhp)	N/A	October 5, 2000

Equipment Exempt from Permitting:				
Reference No.	Equipment Description	Rated Capacity	Exemption Citation	Exemption Date
DC2&3-AST 6	AST for diesel fuel oil	2,000 gallons	9 VAC 5-80-1105 B.8	June 20, 2007
DC4-AST1 Thru DC4-AST6	Six (6) AST for diesel fuel oil	2,000 gallons, each	9 VAC 5-80-1105 B.8	July 27, 2007
DC4-AST7	AST for diesel fuel oil	25,000 gallons	9 VAC 5-80-1105 B.8	July 27, 2007

Equipment Exempt from Permitting (cont.):				
Reference No.	Equipment Description	Rated Capacity	Exemption Citation	Exemption Date
DC4-AST8 Thru DC4-AST10	Three (3) AST for diesel fuel oil	2,000 gallons, each	9 VAC 5-80-1105 B.8	January 19, 2012
DC4-AST11	AST for diesel fuel oil	25,000 gallons	9 VAC 5-80-1105 B.8	January 19, 2012
DC4-AST12 Thru DC4-AST13	Two (2) AST for diesel fuel oil	2,000 gallons, each	9 VAC 5-80-1105 B.8	January 30, 2014
DC2&3- AST13	AST for diesel fuel oil	5,400 gallons	9 VAC 5-80-1105 B.8	October 30, 2019

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

PROCESS REQUIREMENTS

1. **Emission Controls** - Emissions from each emergency diesel engine generator set shall be controlled by the following:
 - a. Nitrogen Oxides (as NO₂) emissions from each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall be controlled by good engine design to include direct diesel injection, engine control module, turbocharger and charge air cooler.
 - b. Sulfur Dioxide (SO₂) emissions from each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11 and DC2&3-EG1 thru DC2&3-EG13) shall be controlled by the use of ultra low sulfur diesel fuel with a sulfur content not to exceed 0.0015%.
 - c. Carbon Monoxide (CO) emissions from each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall be controlled by good combustion practices.
 - d. Volatile Organic Compounds (VOC) emissions from each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall be controlled by good combustion practices.
 - e. Visible emissions from each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall be controlled by good operating practices.

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

2. **Monitoring Device** - Each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall be equipped with a non-resettable device to continuously measure and record engine operating hours. Each monitoring device shall record the data at a frequency of not less than once every fifteen (15) minutes during the operation of an engine. Each monitoring device shall be installed, maintained, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring devices shall be provided with adequate access for inspection and shall be in operation when the engines are operating.
(9 VAC 5-80-1180 D)
3. **Monitoring Device Observation** - To ensure good performance, the engine monitoring device used to continuously measure operating hours shall be observed by the permittee during each test run and at a frequency of not less than once per day during days in which the emergency diesel engine generator sets (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) are called into service. Refer to Condition 24 for record keeping requirements to demonstrate compliance with this condition.
(9 VAC 5-80-1180 D)

OPERATING LIMITATIONS

4. **Operation of the Emergency Diesel Engine Generator Sets** - The permittee shall operate and maintain each emergency diesel engine generator set included in the Equipment List section of this permit and control device 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 does not increase air emissions.
(9 VAC 5-80-1180)
5. **Emergency Power Generation** - The emergency diesel engine generator sets included in the Equipment List section of this permit shall only be operated in the following modes:
 - a. In situations that arises 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 that results in a loss of power;
 - iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
 - b. An Independent System Operator (ISO) declared emergency, where an ISO emergency is any of the following:

- i. 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;
 - ii. Capacity deficiency or capacity excess conditions;
 - iii. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;
 - iv. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or
 - v. An abnormal event external to the ISO service territory that may require ISO action.
- c. For scheduled and non-scheduled maintenance, testing, and operational training.
- d. For the integration operational period which is the period of time beginning with the first time the affected unit is started on-site and ending when the affected unit is fully integrated with the source's electrical system.

(9 VAC 5-80-1180)

6. **Hours of Operation** - The five (5) emergency diesel engine generator sets (DC4-EG7 thru DC4-EG11) shall not operate more than 1,000 hours per year combined, but individually not more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
7. **Hours of Operation** - The six (6) emergency diesel engine generator sets (DC4-EG1 thru DC4-EG6) shall not operate more than 1,200 hours per year combined, but individually not more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
8. **Hours of Operation** - The six (6) emergency diesel engine generator sets (DC2&3-EG7 thru DC2&3-EG12) shall not operate more than 1,200 hours per year combined, but individually not more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)

9. **Hours of Operation** - The five (5) emergency diesel engine generator sets (DC2&3-EG1 thru DC2&3-EG5) shall not operate more than 1,000 hours per year combined, but individually not more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
10. **Hours of Operation** - The emergency diesel engine generator set (DC2&3-EG6) shall not operate more than 200 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
11. **Hours of Operation** - The emergency diesel engine generator set (DC2&3-EG13) shall not operate more than 200 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for each consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
12. **Fuel** - The approved fuel for the emergency diesel engine generator sets included in the Equipment List section of this permit is ultra low sulfur diesel fuel. The diesel fuel shall meet the American Society for Testing and Materials (ASTM) D975 specification for S15 diesel fuel oil with a maximum sulfur content per shipment of 0.0015 %. A change in the fuel may require a new or amended permit.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
13. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel oil. 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;
 - c. The quantity of diesel fuel delivered in the shipment;
 - d. A statement that the diesel fuel
 - i. complies with the ASTM specifications for Grade No. 1-D S15 or Grade No. 2-D S15 (also known as ultra low sulfur diesel (ULSD)); or
 - ii. has a sulfur content per shipment 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 by volume.

Alternatively, the permittee must obtain approval from the Air Compliance Manager of the DEQ NRO, if other documentation will be used to certify the diesel fuel 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 12. Exceedance of these specifications may be considered credible evidence of exceedance of emission limits.
(9 VAC 5-80-1180)

EMISSION LIMITS

14. **Diesel Engine Emission Limits** - Emissions from the operation of each of the emergency diesel engine generator sets shall not exceed the limits specified below:

DC4-EG7 thru DC4-EG11 (5 units)

Nitrogen Oxides (as NO ₂)	38.61 lbs/hr
Carbon Monoxide (CO)	1.39 lbs/hr
Volatile Organic Compounds (VOC)	0.85 lbs/hr
PM _{10/2.5}	0.54 lbs/hr
Sulfur Dioxide (SO ₂)	0.04 lbs/hr

DC4-EG1 thru DC4-EG6 (6 units)

Nitrogen Oxides (as NO ₂)	32.89 lbs/hr
Carbon Monoxide (CO)	1.35 lbs/hr
Volatile Organic Compounds (VOC)	1.48 lbs/hr
PM _{10/2.5}	0.32 lbs/hr
Sulfur Dioxide (SO ₂)	0.04 lbs/hr

DC2&3-EG7 thru DC2&3-EG12 (6 units)

Nitrogen Oxides (as NO ₂)	41.16 lbs/hr
Carbon Monoxide (CO)	4.01 lbs/hr
Volatile Organic Compounds (VOC)	1.19 lbs/hr
PM _{10/2.5}	0.91 lbs/hr
Sulfur Dioxide (SO ₂)	0.03 lbs/hr

DC2&3-EG1 thru DC2&3-EG5 (5 units)

Nitrogen Oxides (as NO ₂)	47.74 lbs/hr
Carbon Monoxide (CO)	9.33 lbs/hr
Volatile Organic Compounds (VOC)	1.28 lbs/hr
PM _{10/2.5}	1.08 lbs/hr
Sulfur Dioxide (SO ₂)	0.02 lbs/hr

DC2&3-EG6 (1 unit)

Nitrogen Oxides (as NO ₂)	28.98 lbs/hr
Carbon Monoxide (CO)	3.95 lbs/hr
Volatile Organic Compounds (VOC)	0.71 lbs/hr
PM _{10/2.5}	0.54 lbs/hr
Sulfur Dioxide (SO ₂)	0.03 lbs/hr

DC2&3-EG13 (1 unit)

Nitrogen Oxides (as NO ₂)	48.07 lbs/hr
Carbon Monoxide (CO)	8.01 lbs/hr
Volatile Organic Compounds (VOC)	1.20 lbs/hr
PM _{10/2.5}	0.41 lbs/hr
Sulfur Dioxide (SO ₂)	0.04 lbs/hr

Compliance with these pollutant limits shall be based on the proper operation and maintenance of the emergency diesel engine generator sets or by testing, if required. (9 VAC 5-80-1180 and 9 VAC 5-50-260)

15. **Facility Wide Emission Limits** - Total emissions from all emergency diesel engine generator sets combined (Ref. No. DC2&3-EG1 thru DC2&3-EG13 and DCC4-EG1 thru DC4-EG11), shall not exceed the limits specified below:

Nitrogen Oxides (as NO ₂)	95.32 tons/yr
Carbon Monoxide (CO)	9.79 tons/yr
Volatile Organic Compounds (VOC)	2.86 tons/yr
PM _{10/2.5}	1.64 tons/yr
Sulfur Dioxide (SO ₂)	0.09 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 shall be determined by calculation methods as stated in Condition 16, or other means acceptable to DEQ.

(9 VAC 5-80-1180)

16. **Annual Emissions Calculations** - The total annual emissions of each regulated pollutant from the emergency diesel engine generator sets shall be calculated monthly as the sum of each consecutive twelve-month period. Compliance for each 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. Refer to Condition 24 for record keeping requirements to demonstrate compliance with this condition.

- a. Emissions Calculations: Monthly emissions (tons) for each pollutant shall be calculated using the following equation and the appropriate emission factors listed in Subsection b. below:

[(Total combined monthly hours of operation of the emergency diesel engine generator sets (Ref. No. DC4-EG7 thru DC4-EG11) x lb/hr)

+

(Total combined monthly hours of operation of the emergency diesel engine generator sets (Ref. No. DC4-EG1 thru DC4-EG6) x lb/hr)

+

(Total combined monthly hours of operation of the emergency diesel engine generator sets (Ref. No. DC2&3-EG7 thru DC2&3-EG12) x lb/hr)

+

(Total combined monthly hours of operation of the emergency diesel engine generator sets (Ref. No. DC2&3-EG1 thru DC2&3-EG5) x lb/hr)

(Total monthly hours of operation of the emergency diesel engine generator set (Ref. No. DC2&3-EG6) x lb/hr

+

(Total monthly hours of operation of the emergency diesel engine generator set (Ref. No. DC2&3-EG13) x lb/hr)] ÷ 2000 lbs/ton

b. Emission Factors:

	DC4-EG7 thru DC4-11 (each)	DC4-EG1 thru DC4-EG6 (each)	DC2&3-EG7 thru DC2&3-EG12 (each)	DC2&3-EG1 thru DC2&3-EG5 (each)	DC2&3- EG6	DC2&3- EG13
NO _x (lb/hr)	38.61	32.89	41.16	47.74	28.98	48.07
CO (lb/hr)	1.39	1.35	4.01	9.33	3.95	8.01
VOC (lb/hr)	0.85	1.48	1.19	1.28	0.71	1.20
PM _{10/2.5} (lb/hr)	0.54	0.32	0.91	1.08	0.54	0.41
SO ₂ (lb/hr)	0.04	0.04	0.03	0.02	0.03	0.04

(9 VAC 5-80-1180)

17. **Visible Emission Limit** - Visible emissions from the engine-generator sets (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall not exceed five percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten 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.

Visible emissions during startup and shutdown from the engine-generator sets (DC4-EG1 thru DC4-EG11, DC2&3-EG6 and DC2&3-EG13) shall not exceed ten percent opacity except during one six-minute period in any one hour in which visible emissions shall not

exceed twenty percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

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

18. **Visible Emission Limit** - Visible emissions from the engine-generator sets (DC2&3-EG1 thru DC2&3-EG5 and DC2&3- EG7 thru DC2&3-EG12) shall not exceed twenty percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty 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.
(9 VAC 5-50-80)

CONTINUING COMPLIANCE DETERMINATION

19. **Stack Tests** - Upon request by the DEQ, the permittee shall conduct performance testing of any permitted engine-generator set to demonstrate 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 (at the address listed in Condition 22).
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)
20. **Visible Emissions Evaluation** - Upon request by the DEQ, the permittee shall conduct visible emission evaluations of any permitted engine-generator set to demonstrate compliance with the visible emission limits contained in this permit. The details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 22).
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)
21. **Testing/Monitoring Ports** - The facility shall be modified 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 by the DEQ at the appropriate locations and safe sampling platforms and access shall be provided.
(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

RECORDS AND NOTIFICATIONS

22. All correspondence concerning this permit should be submitted to the following address -

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

(9 VAC 5-50-50)

23. Initial Notifications - The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 22) of:

- a. The actual date on which construction of the emergency diesel engine generator set (Ref. No. DC2&3-EG13) commenced within thirty days after such date. The notification shall include the following:
 - i. Name and address of the permittee;
 - ii. The address of the affected source;
 - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power and engine displacement; and
 - iv. Fuel used.
- b. The anticipated start-up date of the emergency diesel engine generator set (Ref. No. DC2&3-EG13), postmarked not more than sixty days nor less than thirty days prior to such date.
- c. The actual start-up date of the emergency diesel engine generator set (Ref. No. DC2&3-EG13), within fifteen days after such date. The actual start-up date shall be the date on which each engine completes manufacturer's trials, but shall be no later than thirty days after start-up for manufacturer's trials.

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

24. 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 (at the address listed in Condition 22).

These records shall include, but are not limited to:

- a. Monthly/annual hours of operation of each emergency diesel engine generator set (DC4-EG1 thru DC4-EG11 and DC2&3-EG1 thru DC2&3-EG13), calculated monthly as the sum of each consecutive 12-month period.
- b. The monthly/annual emission calculations for all regulated pollutants from the emergency diesel engine generator sets (DC4-EG1 thru DC4-EG11 and DC2&3-EG1 thru DC2&3-EG13) calculated monthly as the sum of each consecutive 12-month period, using the calculation methods in Condition 16 to verify compliance with the ton/yr emissions limitations in Condition 15.
- c. Log of monitoring device observations in accordance with Condition 3.
- d. All fuel supplier certifications.

- e. All VEE, emission stack test reports for each emergency diesel engine generator.
- f. A copy of the maintenance schedule and records of scheduled and unscheduled maintenance in accordance with Condition 28.
- g. Operator training in accordance with Condition 28.

Compliance for the consecutive twelve month period in subsections a, b, c, d, and e above shall be determined monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months. These records shall be available for inspection by the DEQ and shall be current for the most recent five years, unless otherwise noted.

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

GENERAL CONDITIONS

25. Permit Invalidity - The portions of this permit to construct and operate that pertain to constructing the one emergency diesel engine generator set (Ref. No. DC2&3-EG13) shall become invalid, unless an extension is granted by the DEQ, if:

- a. A program of continuous construction or modification is not commenced within 18 months from the date of this permit;
- b. A program of construction or modification 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.

(9 VAC 5-80-1210)

26. Permit Suspension/Revocation - The Board may suspend or revoke any permit if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to an emissions unit included in this permit;
- 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 fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the implementation plan in effect at the time that an application is submitted; or

e. Fails to comply with the applicable provisions of 9 VAC 5-80-1100 et seq.

(9 VAC 5-80-1210 F and 9 VAC 5-80-1210 G)

27. 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)

28. Maintenance/Operating Procedures - At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Air Compliance Manager of the DEQ's NRO, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions:

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

equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

29. **Record of Malfunctions** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shut-down or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. The records shall be maintained in a form suitable for inspection and maintained for at least two years (unless a longer period is specified in the applicable emission standard) following the date of occurrence. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause of malfunction), 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)
30. **Notification for Facility or Control Equipment Malfunction** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of the DEQ's NRO by facsimile transmission, telephone, email, or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the Condition causing the failure or malfunction has been corrected and the facility or control equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)
31. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO in case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour. The intent to shut down or bypass such equipment shall be reported to the Regional Air Compliance Manager of the DEQ's NRO and local air pollution control agency, if any, at least twenty-four hours prior to the planned shutdown. Such prior notice shall include, but is not limited to the following information:
- a. Identification of air pollution control equipment to be taken out of service, as well as its location and registration number;
 - b. The expected length of time that the air pollution control equipment will be out of service;
 - c. The nature and quantity of emissions of air pollution likely to occur during the shutdown period; and

- d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-20-180 B)

- 32. **Violation of Ambient Air Quality Standard** - Regardless of any other provision of this permit, the permittee shall, upon request of the DEQ, reduce the level of operation of the facility if the DEQ determines that is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the DEQ may order that the permittee shut down the facility, if there is no other method of operation to avoid a violation of the ambient air quality standard. The DEQ reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.

(9 VAC 5-20-180 I)

- 33. **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 Regional Air Compliance Manager of the DEQ's NRO of the change of ownership within thirty days of the transfer.

(9 VAC 5-80-1240 B)

- 34. **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)