



NRO-038-14

COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193-1453
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

David K. Paylor
Director

Thomas A. Faha
Regional Director

March 27, 2014

Mr. Richard Newcomb
Regional Vice President of Engineering
Comcast Cable Communications, LLC
8098 Sandpiper Circle
Baltimore, MD 21236

Location: Prince William County
Registration No.: 72374
Facility ID No. 51-153-00144

Dear Mr. Newcomb:

Attached is a minor amendment to your new source review permit dated October 18, 2012, to construct and operate fuel burning equipment at Comcast Cable Communications, LLC – Manassas, Virginia facility, in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board (Board's) Regulations for the Control and Abatement of Air Pollution (Regulations). The purpose of this permit amendment is to acknowledge the diesel engine replacement described in the permit application dated April 2, 2013. This amended permit document supersedes your permit document dated October 18, 2012.

The Department of Environmental Quality (DEQ) deemed the application complete on April 4, 2013, and has determined that the application meets the requirements of 9 VAC 5-80-1280 A for a minor 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 modify and operate shall not relieve Comcast Cable Communications, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

Please note that the Caterpillar 3512C diesel engine generator sets may be affected facilities under 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart IIII (Stationary Compression Ignition Internal Combustion Engines) and/or 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT) Subpart ZZZZ

(Stationary Reciprocating Internal Combustion Engines). As the owner/operator of the potentially affected units, DEQ advises you to review the NSPS and MACT to ensure compliance with applicable emission standards, operational limitations, and the monitoring, notification, reporting and recordkeeping requirements. Applicable notifications shall be sent to EPA, Region III. Both the NSPS and MACT may be found at 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. 9 VAC 5-170-200 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. 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:

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 30-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 me at (703) 583-3928.

Sincerely,

A handwritten signature in black ink, appearing to read "James B. LaFratta".

James B. LaFratta
Regional Air Permit Manager

TAF/JBL/14-038mNSR

Attachment: Permit

cc: DEQ NRO Regional Air Compliance Manager (pdf copy via email)



NRO-038-14

COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193-1453
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

David K. Paylor
Director

Thomas A. Faha
Regional Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

This permit supersedes your permit dated October 18, 2012.

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

Comcast Cable Communications, LLC
8098 Sandpiper Circle
Baltimore, MD 21236
Registration No.: 72374
AFS ID No.: 51-153-00144

is authorized to construct and operate

fuel burning equipment

located at

11101 University Boulevard
Manassas, Virginia 20110
(Prince William County)

in accordance with the Conditions of this permit.

Approved on
Amended on

October 18, 2012
March 27, 2014

A handwritten signature in black ink, appearing to read "Thomas A. Faha", with a long horizontal line extending to the right.

Thomas A. Faha
Regional Director

Permit consists of 10 pages.
Permit Conditions 1 to 24.

INTRODUCTION

This permit approval is based on the permit applications dated April 2, 2013, August 29, 2012 and March 8, 2005. 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 5-80-1110 and 9 VAC 5-10-10 *et seq.* of the Commonwealth of Virginia State Air Pollution Control Board's (Board's) Regulations (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 Department of Environmental Quality (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 Board's Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** – Equipment at this facility consists of the following:

Equipment to be Constructed:			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
3	Caterpillar Model 3512C Diesel Engine Generator Set	2206 bhp 1500 ekW	9 VAC 5-50-410 and 9 VAC 5-60-100
4	Caterpillar Model 3512C Diesel Engine Generator Set	2206 bhp 1500 ekW	9 VAC 5-50-410 and 9 VAC 5-60-100

Equipment permitted prior to the date of this permit:				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
-	Sixteen (16) Trane natural gas fired rooftop heating units	10.45 MMBtu/hr (combined)	N/A	August 1, 2005
-	Miscellaneous natural gas fired space and water heaters	630,000 Btu/hr (combined)	N/A	August 1, 2005

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 80-1180 D 3)

2. **Emission Controls (Diesel Engine – Generator Sets)** – Emissions from each diesel engine-generator set (Ref. Nos. 3 and 4) shall be controlled by the following:
 - a. Nitrogen oxides (NO_x) emissions shall be controlled by electronic fuel injection, turbocharged engine with after cooler.
 - b. Sulfur dioxide (SO₂) emissions shall be controlled by the use of ultra low sulfur diesel fuel oil with a sulfur content not to exceed 0.0015% by weight (15 ppm).
 - c. Proper combustion for and visible 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 degrade the air emissions from the engines.

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

3. **Emission Controls (Natural Gas Fired Heating Units)** – NO_x emissions from the natural gas fired heating equipment listed in Condition 1 shall be controlled by proper operation and maintenance.
(9 VAC 5-170-160 and 9 VAC 5-50-260)
4. **Monitoring (Diesel Engine – Generator Sets)** – Each diesel engine generator set (Ref. Nos. 3 and 4) shall be equipped with a non-resettable hour metering device to continuously monitor the operating hours for each unit.

The non-resettable hour meter shall be observed by the owner with a frequency of not less than once each day the diesel 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 diesel engine-generator sets are operating.
(9 VAC 5-80-1180 D)

OPERATING LIMITATIONS

5. **Operating Scenarios for the Diesel Engine Generator Sets** – The diesel engine-generator sets (Ref. Nos. 3 and 4) 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 or equipment failure; or
 - iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
- b. For participation in an ISO-declared emergency, where an ISO emergency is:
 - 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 periodic maintenance, testing, and operational training.

(9 VAC 5-80-1180)

- 6. **Operating Hours** – Each diesel engine generator set (Ref. Nos. 3 and 4) 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.

(9 VAC 5-80-1180)

- 7. **Fuel Specification (Heating Units)** – The approved fuel for the roof-top heaters, and the miscellaneous space and hot water heaters, is natural gas. A change in the fuel may require a permit to modify and operate.

(9 VAC 5-80-850)

8. **Fuel (Engine Generator Sets)** – The approved fuel for the diesel engine-generator sets (Ref. Nos. 3 and 4) 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 may require a permit to modify and operate.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
9. **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;
 - c. The quantity of diesel fuel delivered in the shipment;
 - d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and
 - e. The sulfur content of the diesel fuel.
 - f. Alternately, the permittee shall obtain approval from DEQ 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 DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 8. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-1180)

EMISSION LIMITS

10. **Emission Limits** – Emissions from the operation of each engine-generator set (Ref. Nos. 3 and 4) shall not exceed the limits specified below:

Nitrogen Oxides (as NO ₂)	29.18 lbs/hr	7.3 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 Condition 6.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

11. **Visible Emission Limit** – Visible emissions from the engine-generator sets (Ref. Nos. 3 and 4) 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.

During start-up and shut-down times, visible emissions from the engine-generator sets (Ref. Nos. 3 and 4) shall not exceed ten percent 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, 9 VAC 5-50-260, 9 VAC 5-80-850 and 9 VAC 5-50-80)

CONTINUING COMPLIANCE DETERMINATION

12. **Testing/Monitoring Ports** – The 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. 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)
13. **Stack Tests** – Upon request by the DEQ, the permittee shall conduct performance tests and/or visible emission evaluations of the permitted equipment to demonstrate compliance with the emission limits contained in this permit or the Board's Regulations. The details of the tests shall be arranged with the DEQ's Northern Regional Office.
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)

RECORDS, REPORTS AND NOTIFICATIONS

14. **Permit Correspondence** – Unless otherwise indicated in this permit, 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)

15. **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 DEQ's Northern Regional Office.

These records shall include, but are not limited to:

- a. Annual hours of operation of each engine-generator set (Ref. Nos. 3 and 4), calculated monthly as the sum of each consecutive 12 month period.
- b. Annual natural gas consumption of the miscellaneous roof-top heaters, and miscellaneous space and water heaters, calculated monthly as the sum of each

consecutive 12 month period.

- c. All fuel supplier certifications.
- d. A log of hours of operation for each diesel engine-generator set, dates, and reason the unit was operated in accordance with Condition 5.
- e. Log of monitoring device observations for diesel engine-generator set (Ref. Nos. 3 and 4) in accordance with Condition 4.
- f. A copy of the maintenance schedule and records of scheduled and unscheduled maintenance in accordance with Condition 18.
- g. Operator training in accordance with Condition 18.
- h. 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. The records shall be maintained in a form suitable for inspection.
- i. Records of the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer.

Compliance for the consecutive 12 month period (referenced in subsections a and b above) 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.

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

16. 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)

17. 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)

18. Maintenance/Operating Procedures – At all times, including periods of start-up, shutdown, soot blowing, 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 air pollution control equipment and process equipment which affect such emissions:

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

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

19. **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)
20. **Notification for Facility or Control Equipment Malfunction** – The permittee shall furnish notification to DEQ's Northern Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but 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 two weeks 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 DEQ's Northern Regional Office.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)
21. **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)
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.
(9 VAC 5-20-180 I and 9 VAC 5-80-1180)

23. **Change of Ownership** – In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current minor NSR permit issued to the previous owner. The new owner shall notify DEQ's Northern Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

24. **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)