



NVRO-434-03

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193-1453
(703) 583-3800 fax (703) 583-3801
www.deq.state.va.us

Robert G. Burnley
Director

Jeffery A. Steers
Regional Director

September 16, 2003

Mr. Brian T. Jacobson
Director, Environmental Affairs
Qwest Communications Corporation
1801 California Road
Suite 3600
Denver, CO 80202

Location: Loudoun County
Registration No: 73158

Dear Mr. Jacobson:

Attached is a minor amendment to the June 29, 2001, permit to modify and operate a telecommunications facility in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board's Regulations for the Control and Abatement of Air Pollution. This permit supersedes your permit dated June 29, 2001.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

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 September 8 2003.

This approval to modify and operate shall not relieve Qwest Communications Corporation of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provides 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

Event	Date	Initials
Code: PNR	9/16/03	EE
Scanned		
QC		

mailed or delivered to you. 9 VAC 5-170-180 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 thirty days from the date of service of this decision (the date you actually received this decision 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:

Robert G. Burnley, Director
Department of Environmental Quality
P.O. Box 10009
Richmond, Virginia 23240-0009

In the event that this decision is served on you by mail, three days are added to the 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 (703) 583-3840.

Sincerely,



Terry H. Darton
Regional Permit Manager

Attachment: Permit

Cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)



NVRO-434-03

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193-1453
(703) 583-3800 fax (703) 583-3801
www.deq.state.va.us

Robert G. Burnley
Director

Jeffery A. Steers
Regional Director

STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

This permit supersedes your permit dated June 29, 2001.

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

Qwest Communications Corporation
1801 California Street, Suite 3800
Denver, CO 80202

Registration No.: 73158
AIRS ID No.: VA-107-00814

is authorized to modify and operate:

a telecommunications facility

located at:

22810 International Drive
Sterling, Loudoun County, Virginia 20166

in accordance with the Conditions of this permit.

Approved on: September 16, 2003

Director, Department of Environmental Quality

Permit consists of 10 pages.
Permit Conditions 1 to 27.

PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses () after each condition.

APPLICATION

1. Except as specified in this permit, the permitted facility is to be modified and operated as represented in the permit application dated August 1, 2003, and the amendment application dated August 11, 2003, and September 8, 2003. 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.
(9 VAC 5-50-390 B and 9 VAC 5-80-1210 D)

PROCESS REQUIREMENTS

2. **Equipment List** - Equipment to be modified and operated at this facility consists of:

- ten Cummins Onan 1500DFLE Diesel Genset (Ref # S2, 1-10), each rated at 1500 kilowatts (kW)
- three Caterpillar 3516B Diesel Genset (Ref # S1, 1-3), each rated at 2000 kW

(9 VAC 5-80-1100)

3. **Operating Limitation** – All facility generators are to be used only for providing power at the location during interruption of service from the normal power supplier, periodic maintenance testing, and operational training. The ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10) are further subject to the following operating limitations:
 - a. In the event of commercial power outage or interruption, all ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10) may be operated only until power requirements are stabilized, not to exceed one quarter of an hour. Afterward, only the necessary number of generators shall operate to provide facility power needs during the emergency, which at maximum shall not exceed eight of the ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10).
 - b. The generators shall be operated at or below Full Prime, which is defined as operating at a load of 1250 kilowatts with fuel consumption rate of 87.3 gallons per hour. If operation above Full Prime or at Full Standby is required other than for initial startup, then only six of the ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10) shall be operated. Full standby condition is defined as operating at maximum load of 1500 kilowatts with maximum fuel consumption rate of 103.6 gallons per hour. Records shall be maintained on the engines,

dates, hours of operation and fuel use from operating above Full Prime or at Full Standby conditions.

(9 VAC 5-80-1180)

4. **Fuel** - The approved fuel for the three Caterpillar 3516B Diesel Genset and ten Cummins Onan 1500DFLE Diesel Genset (S1, 1-3 and S2, 1-10) is diesel fuel or distillate fuel oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-1180)
5. **Fuel Throughput** - The three Caterpillar 3516B Diesel Genset (S1, 1-3) shall consume no more than 28,451 gal/yr of diesel/distillate fuel oil, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-1180)
6. **Fuel Throughput** - The ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10) shall consume no more than 67,524 gal/yr of diesel/distillate fuel oil, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-1180)
7. **Fuel Specifications** - The fuel shall meet the American Society for Testing and Materials, ASTM (D975) specifications for diesel fuel or distillate oil which meets the ASTM (D396) specifications for number 1 or 2 fuel oil, with maximum sulfur content per shipment not to exceed 0.5% by weight.
(9 VAC 5-80-1180)
8. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel or distillate fuel oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the fuel was received;
 - c. The volume of fuel delivered in the shipment;
 - d. A statement that the fuel complies with the current American Society for Testing and Materials (ASTM) specifications,
 - e. The sulfur content of the fuel.

(9 VAC 5-170-160)

9. **Emission Limits** – Hourly emissions from the operation of each of the three Caterpillar 3516B Diesel Genset (S1, 1-3) shall not exceed the limits specified below:

Nitrogen Dioxide	67.02 lbs./hr
Sulfur Dioxide	9.74 lbs./hr
Carbon Monoxide	4.86 lbs./hr
Volatile Organic Compounds	0.92 lbs./hr
PM-10	0.63 lbs./hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 14 and 23.
(9 VAC 5-50-260 and 9 VAC 5-60-320)

10. **Emission Limits** – Total annual emissions from the operation of the three Caterpillar 3516B Diesel Genset (S1, 1-3) shall not exceed the limits specified below:

Nitrogen Dioxide	8.13 tons/yr.
Sulfur Dioxide	1.01 tons/yr.
Carbon Monoxide	0.56 tons/yr.
Volatile Organic Compounds	0.26 tons/yr.
PM-10	0.14 tons/yr.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 5 and 17.
(9 VAC 5-50-260 and 9 VAC 5-60-320)

11. **Emission Limits** – Hourly emissions from the operation of each of the ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10), under Full Prime conditions shall not exceed the limits specified below:

	Full Standby
Nitrogen Dioxide	49.92 lbs./hr
Sulfur Dioxide	7.34 lbs./hr
Carbon Monoxide	7.83 lbs./hr
Volatile Organic Compounds	1.22 lbs./hr
PM-10	0.98 lbs./hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible

evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 15 and 23.
(9 VAC 5-50-260 and 9 VAC 5-60-320)

12. **Emission Limits** – Total annual emissions from the operation of the ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10) shall not exceed the limits specified below:

Nitrogen Dioxide	16.27 tons/yr.
Sulfur Dioxide	2.39 tons/yr.
Carbon Monoxide	2.55 tons/yr.
Volatile Organic Compounds	0.67 tons/yr.
PM-10	0.98 tons/yr.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 6 and 17.
(9 VAC 5-50-260 and 9 VAC 5-60-320)

13. **Facility Emission Limits** - Total emissions of nitrogen oxides, expressed as nitrogen dioxide (NO₂), from the operation of the emergency diesel generators shall not exceed 24.4 tons per year. The nitrogen dioxide emissions shall be calculated from the fuel consumption records and emission factors based on manufacturer/test data, in the following way:

NO_x emissions (tons/yr) =

[Total Caterpillar NO_x emissions (tons/yr)] +
[Total Cummins NO_x emissions (tons/yr)]

Total Caterpillar NO_x emissions (tons/yr) =

(Sum of gallons of fuel consumed per year by all caterpillar equipment) *
(0.57 lbs. of NO_x / gallons of fuel consumed) * (1 ton / 2000 lbs.)

Total Cummins NO_x emissions (tons/yr) =

(Sum of gallons of fuel consumed per year by all Cummins equipment) *
(0.48 lbs. of NO_x / gallons of fuel consumed) ÷ (1 ton / 2000 lbs.)

The NO_x emissions must be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-1180)

- 14. Visible Emission Limit** - Visible emissions from the three Caterpillar 3516B Diesel Genset and ten Cummins Onan 1500DFLE Diesel Genset (S1, 1-3 and S2, 1-10) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-80 and 9 VAC 5-50-260)
- 15. Test/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations in accordance with the requirements of EPA Reference Method 1 (ref. 40 CFR Part 60, Appendix A).
(9 VAC 5-50-30 F)

RECORDS

- 16. 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 Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
- a. Annual consumption of fuel for the three Caterpillar 3516B Genset (S1, 1-3), calculated monthly as the sum of each consecutive 12 month period.
 - b. Annual consumption of fuel for the ten Cummins Onan 1500DFLE Diesel Genset (S2, 1-10), calculated monthly as the sum of each consecutive 12 month period.
 - c. Record the hours of operations since the last time the tank was filled by the maximum fuel consumption for the engines.
 1. Multiply the hours of operations since the last time the tank was filled by the maximum hourly flow rate of the respective engines.
 2. The total rolling 12-month consumption for the Sterling 1 Plant shall be calculated by adding the amount of fuel added to the tanks in the last 12 months to the value obtained by multiplying the run-time hours since the last tank fill by 137.5 gallons per hour (the maximum fuel flow rate. The fuel consumption for the Sterling 2 Plant will be calculated the same way, but the run-time estimate will be calculated by multiplying the hours of the operation since the last tank fill by 103.6 gallons.
 3. In case, when the tanks are filled again, the 12-month running average will be corrected/normalized based upon the actual fuel consumed.

4. In the event a fuel meter is installed to accurately gauge actual fuel consumption, then the reading from the fuel meter may be used in place of the methods stated above.
- d. The total amount of nitrogen oxides, expressed as nitrogen dioxide (NO₂), emitted from the facility, calculated monthly as the sum of the most recent 12 consecutive months, as required in Condition 13.
- e. All fuel supplier certifications.
- f. 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.

(9 VAC 5-50-50)

17. **Emission Statement** – The owner of a stationary source permitted to emit or emitting 24.4 tons per year or more of volatile organic compounds or nitrogen oxides shall submit a completed emission statement to the Air Compliance Manager, Northern Virginia Regional Office by April 15 of each year for the emissions discharged during the previous calendar year. The emission statement shall be prepared and submitted in the appropriate format, as approved by the Department.
(9 VAC 5-20-160 B)

NOTIFICATIONS

18. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Air Compliance Manager, Northern Virginia 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 not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify in writing the Air Compliance Manager, Northern Virginia Regional Office.
(9 VAC 5-20-180 C)

GENERAL CONDITIONS

19. **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)

20. 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)

21. Maintenance/Operating Procedures - 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, and kept on site.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. 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)

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

- a. Knowingly makes material misstatements in the application for this permit 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 the equipment listed in Condition 2;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
- f. Fails to modify or operate this facility in accordance with the application for this permit or any amendments to it; or
- g. Allows the permit to become invalid.

(9 VAC 5-80-1210)

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 Air Compliance Manager, Northern Virginia Regional Office of the change in ownership within 30 days of the transfer.

(9 VAC 5-80-1240)

24. Registration/Update - 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, §§ 2.1-340 through 2.1-348 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.

(9 VAC 5-20-160 and 9 VAC 5-170-60)

25. Permit Copy - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.

(9 VAC 5-170-160)