



NVRO-073-03

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 OPERATE

This permit implements the requirements for Reasonably Available Control Technology (RACT)

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

Prince William County Department of Public Works
14811 Dumfries Road
Manassas, VA 20112-3941
Registration No.: 72340

is authorized to operate

a sanitary landfill

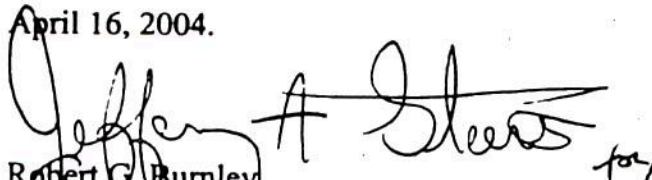
located at

14811 Dumfries Road
Manassas, VA 20112-3941

in accordance with the Conditions of this permit.

Approved on

April 16, 2004.


Robert G. Burnley
Director, Department of Environmental Quality

Permit consists of 5 pages.
Permit Conditions 1 to 17

PURPOSE

This permit (i) is for the purpose of implementing the "reasonably available control technology" (RACT) requirements of 9 VAC 5-40-310 and/or 9 VAC 5-40-311 of the Regulations of the Board and (ii) establishes control technology and other requirements for the control of nitrogen oxides (NO_x) emissions from the Prince William County Sanitary Landfill in the Northern Virginia Severe Ozone Non-attainment area. These RACT requirements shall be the legal and regulatory basis for the control of (NO_x) emissions from the facility. (9 VAC 5-80-800 C.2.b.)

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

PROCESS REQUIREMENTS

1. **Equipment List** - According to 9 VAC 5-40-310, a demonstration of RACT is required for the following equipment and implemented through the remaining conditions of this permit:

Two Caterpillar Model 3516 Inter-cooled, Turbo-Charged Lean Burn Engines with Air-to-Fuel Controllers, each rated at 1340 BHP (0.95 Megawatts)

One LFG Specialties Model EF8.545I10 Enclosed Flare rated at 2000 scfm
(9 VAC 5-40-310)

2. **Emission Controls** - Emissions of nitrogen oxides (NO_x) from the two Caterpillar Model 3516 engines (PCD ID No.'s PCD-01 & PCD-02) shall be controlled through the use of spark-ignited, inter-cooled, turbo-charged lean burn internal combustion engines with automatic air to fuel ratio control. Emissions of nitrogen oxides (NO_x) from the LFG Specialties enclosed flare shall be controlled by maintaining a retention time of at least 0.6 seconds, a minimum temperature of 1400°F, auto combustion air control, automatic shutoff gas valve, and automatic re-start system. All control devices shall be provided with adequate access for inspection and shall be in operation when the engines and flare are operating.
(9 VAC 5-80-850)

3. **Monitoring Devices** - The Caterpillar Model 3516 engines (PCD ID No.'s PCD-01 & PCD-02) shall be equipped with a device to continuously measure and record the temperature in the exhaust manifold. The enclosed flare shall be equipped with a device to continuously measure and record the combustion temperature in the flare.

Each monitoring device shall be installed, maintained, calibrated 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 engines and/or the enclosed flare are operating.

(9 VAC 5-80-850)

4. **Testing/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 in accordance with the applicable performance specification in 40 CFR Part 60, Appendix A.
(9 VAC 5-80-850)

OPERATING/EMISSION LIMITATIONS

5. **Fuel** - The approved fuel for the operation of the two caterpillar engines and the enclosed flare is landfill gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)
6. **Emission Limits** - Emissions from the operation of each of the two Caterpillar Model 3516 engines (PCD ID No.'s PCD-01 & PCD-02) shall not exceed the limits specified below:

Nitrogen Oxides (as NO₂)

1.2 g/Bhp-hr

Emissions from the operation of the LFG Specialties enclosed flare (PCD ID No. PCD-03) shall not exceed the limit specified below:

Nitrogen Oxides (as NO₂)

0.06 lb/MMBtu

(9 VAC 5-40-311)

7. **Compliance Demonstration** - Initial performance tests shall be conducted for nitrogen oxides on each of the Caterpillar engines and the enclosed flare to determine compliance with the emission limits stated in Condition 6. The facility shall demonstrate compliance by November 1, 2005. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Air Compliance Manager of the Northern Virginia Regional Office. The permittee shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the Air Compliance Manager, Northern Virginia Regional Office, within forty-five days after the test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-40-310, 9 VAC 5-50-50 and 9 VAC 5-80-1200)
8. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 2 shall be operated in compliance with the requirements of 40 CFR 60, Subpart WWW.
(9 VAC 5-60-60 and 9 VAC 5-60-70)

FACILITY WIDE CONDITIONS

9. **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. The total amount of nitrogen oxides, expressed as nitrogen dioxides (NO₂) emitted from the facility, calculated monthly as the sum of each consecutive twelve-month period.
- b. Annual throughput of landfill gas to the engines and the flare, calculated monthly as the sum of each consecutive twelve month period.
- c. Monthly hours of operation and maintenance performed upon each of the engines and the flare.
- d. The manufacturer's documentation for the operation, maintenance and specifications as required by Condition 3 of this permit.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-900)

GENERAL CONDITIONS

10. **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:
- e. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - f. Maintain an inventory of spare parts.
 - g. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - h. 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)

11. **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)

12. **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 Northern Virginia Regional Office of the DEQ of the change of ownership within thirty days of the transfer.
(9 VAC 5-80-940)
13. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)
14. Except to the extent that the conditions in this permit may be more stringent, this permit does not supersede or replace any other valid permit, regulatory or statutory requirement. Furthermore, this approval to operate shall not relieve the Prince William County Department of Public Works of the responsibility to comply with all other local, state, and federal regulations, including permit regulations.
15. Once the permit is approved by the U.S. Environmental Protection Agency into the Commonwealth of Virginia State Implementation Plan, the permit is enforceable by EPA and citizens under the federal Clean Air Act.
16. The Board may modify, rewrite, or amend this permit with the consent of the Prince William County Department of Public Works, for good cause shown by the Prince William County Department of Public Works, or on its own motion provided approval of the changes is accomplished in accordance with Regulations of the Board and the Administrative Process Act (§§ 2.2-4000 et seq.); however, such changes shall not be effective until the changes are approved following the requirements of 40 CFR Part 51 (Requirements for Preparation, Adoption, and Submittal of Implementation Plans).
17. Failure by the Prince William County Department of Public Works to comply with any of the conditions of this permit shall constitute a violation of a Permit of the Board. Failure to comply may result in a Notice of Violation and civil penalty. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of orders as appropriate by the Board as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

