



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Dennis H. Treacy
Director

Gregory L. Clayton
Regional Director

CONSENT AGREEMENT

WITH

Board of Supervisors of Fairfax County,
Virginia

FOR

Noman M. Cole, Jr. Pollution Control Plant
9399 Richmond Highway
P. O. Box 268
Lorton, Virginia 22199
Registration No. 70714

SECTION A: Purpose

This Agreement establishes a Reasonably Available Control Technology (RACT) standard for the Noman M. Cole, Jr. Pollution Control Plant (NMCPCP), for the control of Nitrogen Oxides (NO_x) emissions in the Northern Virginia Ozone Nonattainment Area as required by 9 VAC 5-40-310 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. This RACT standard shall be the basis for control of NO_x emissions from this plant.

SECTION B: Definitions

Unless the context indicates otherwise, the following words and terms have the meanings assigned to them below:

"Agreement" means this Consent Agreement.

"NMCPCP" or "affected facility" means Noman M. Cole, Jr. Pollution Control Plant, located at 9399 Richmond Highway, Lorton, Virginia, which is located in Fairfax County, Virginia.

"Board" or "SAPCB" means the State Air Pollution Control Board, a collegiate body of the Commonwealth of Virginia described in § 10.1-1301 of the Code. Particular powers and duties of the Board are described in Section C of this document.

"Code" means the Code of Virginia.

"County" means the Board of Supervisors of Fairfax County, Virginia.

"DEQ" means the Department of Environmental Quality, an agency of the Commonwealth described in § 10.1-1183 of the Code.

"Director" means the Director of the Department of Environmental Quality. Particular powers and duties of the Director are described in Section C of this document.

"EPA" means the United States Environmental Protection Agency.

"Major Stationary Source" means any stationary source which emits, or has the potential to emit 100 tons per year or more of any pollutant subject to regulation under the federal Clean Air Act, or 50 tons per year or more of volatile organic compounds or nitrogen oxides in ozone nonattainment areas classified as serious in 9 VAC 5-20-204 of the SAPCB Regulations. The area in which the affected facility is located is a nonattainment area classified as serious in 9 VAC 5-20-204 of the SAPCB Regulations.

"New source review program" means a program for the preconstruction review and permitting of new stationary sources or expansions to existing ones in accordance with regulations promulgated to implement the requirements of §§ 110 (a) (2) (C), 165 (relating to permits in prevention of significant deterioration areas) and 173 (relating to permits in nonattainment areas) of the federal Clean Air Act.

"Non-CTG" means a source type for which the EPA has not issued a Control Technique Guideline (CTG), and thus has not established RACT for that source type.

"NO_x" means Nitrogen Oxides as defined by 9 VAC 5-10-20 of the SAPCB Regulations.

"Reasonably Available Control Technology" or "RACT" means

the lowest emission limit that a particular source is capable of meeting by the application of control technology that is both reasonably available, as well as technologically and economically feasible.

"Regional Director" means the Director of the Northern Virginia Regional Office of the Department of Environmental Quality, 13901 Crown Court, Woodbridge, Virginia 22193.

"SAPCB Regulations" means Regulations for the Control and Abatement of Air Pollution (9 VAC 5 Chapters 10 through 80) and the Regulation for General Administration (9 VAC 5 Chapter 170).

"SIP" means the State Implementation Plan.

"Theoretical potential to emit" means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. It is based on emissions at design capacity or maximum production and maximum operating hours (8,760 hours per year) before add-on controls, unless the source is subject to state and federally enforceable permit conditions which limit production rates or hours of operation.

"VOC" means volatile organic compounds as defined by 9 VAC 5-10-20 of the SAPCB Regulations.

SECTION C: Authority

1. Chapter 13 of Title 10.1 of the Code creates the Board and vests in it the authority to supervise and control various aspects of air pollution in the Commonwealth. Among the Board's powers is the authority to promulgate regulations "abating, controlling and prohibiting" air pollution, found in § 10.1-1308 of the Code.
2. Pursuant to its authority, the Board has promulgated the SAPCB Regulations, which first took effect March 17, 1972 and have been periodically amended.
3. Pursuant to § 10.1-1307 D of the Code, the Board has the authority to issue orders to diminish or abate the causes of air pollution and to enforce its regulations. Orders of the Board are enforceable pursuant to §§ 10.1-1316 and 10.1-1320 of the Code.
4. The Director is the executive officer of the Board.

Under § 10.1-1307.2 A and 10.1-1185 of the Code, the Director is to perform those duties required of him by the Board. . Additionally under § 10.1-1307.3 of the Code, the Director has such powers to supervise, administer and enforce the provisions of Chapter 13 of Title 10.1 of the Code, as well as the regulations and orders of the Board, as are conferred upon him by the Board. The powers and duties conferred and imposed upon the Director under §§ 10.1-1307.2 and 10.1-1307.3 of the Code are continued under § 10.1-1185 of the Code.

5. Under § 10.1-1307.2 B of the Code, the Director may be vested with the authority of the Board when it is not in session, subject to such regulations or delegation as may be prescribed by the Board. 9 VAC 5-170-180 of the SAPCB Regulations contains the Delegation of Authority from the Board to the Director. In subdivision B of 9 VAC 5-170-180 the Director is given the authority, with some exceptions, to act for the Board when it is not in session and to issue consent orders and emergency special orders.

SECTION D: Findings

1. The County currently operates NMCCPCP, a wastewater treatment plant with six (6) multiple hearth sewage sludge incinerators, in Fairfax County, Virginia.
2. 9 VAC 5-40-300 and 9 VAC 5-40-310 of the SAPCB Regulations requires RACT for all non-CTG major stationary sources with potential VOC emissions of 25 tons per year or greater and NO_x emissions of 50 tons per year or greater in the Northern Virginia Ozone Nonattainment Area, which includes the Cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park, and the counties of Arlington, Fairfax, Loudoun, Prince William and Stafford.
3. NMCCPCP was determined by DEQ to be a non-CTG major stationary source of VOC and NO_x emissions in the Northern Virginia Ozone Nonattainment Area.
4. On February 25, 1993, the Board notified the County of its requirement to develop a RACT standard for VOC and NO_x emissions from the affected facility.

5. The County performed a RACT analysis, which was submitted to the DEQ on August 3, 1993.
6. DEQ met with the County's representative on November 17, 1993, in order to discuss the previously submitted RACT analysis.
7. The County submitted a revised RACT analysis to the DEQ on March 11, 1994.
8. The DEQ provided comments to the County regarding the revised RACT analysis on March 22, 1994.
9. The County submitted a revised RACT analysis to the DEQ on May 26, 1994.
10. The DEQ provided comments to the County regarding the revised RACT analysis on November 10, 1994 and December 8, 1994.
11. The County submitted a revised RACT analysis to the DEQ on June 1, 1995.
12. The DEQ provided comments to the County regarding the revised RACT analysis on February 29, 1996.
13. The County responded to DEQ's comments on March 26, 1996, and determined that stack testing would be conducted, in order to accurately quantify the actual emissions at the facility.
14. The DEQ provided additional comments to the County regarding the revised RACT analysis on April 13, 1996.
15. The County responded to DEQ's comments on April 13, 1996.
16. In a letter dated August 21, 1996, the DEQ requested that the County provide a schedule for the upcoming stack testing and RACT analysis submittal.
17. The County submitted a schedule to the DEQ on September 6, 1996.
18. DEQ met with the County's representative on November 8, 1996, in order to discuss the preliminary stack test results and how the results would effect the RACT evaluation.

19. The County submitted the compiled stack test results to the DEQ on January 8, 1997.
20. In a letter dated March 12, 1997, the DEQ responded to the County's stack test submittal and concurred with the County's determination that NMCPCP had a potential to emit less than 25 tons per year (TPY) of VOC when operated at its VPDES permitted limit of 67 million gallons per day (MGD) or less and was not subject to the VOC RACT requirements.
21. DEQ met with the County's representative on March 21, 1997, in order to discuss the final stack test results and the changes to the analysis which were required in order to reflect the testing results.
22. The County submitted a revised RACT analysis to the DEQ on May 22, 1997.
23. On July 17, 1997, the DEQ provided comments to the County regarding the revised RACT analysis.
24. The County submitted a final RACT analysis to the DEQ on August 14, 1997.
25. DEQ determined that NMCPCP does not have the theoretical potential to emit 25 tons per year or greater of VOC. Thus, NMCPCP is exempt from the VOC RACT requirements as defined in 9 VAC 5-40-300 of the SPCB Regulations.
26. The following pre-RACT NO_x emissions for NMCPCP if operated at its VPDES permitted limit of 67 MGD are summarized in the RACT analysis:
 - a. Total uncontrolled NO_x emissions from NMCPCP's natural gas and/or distillate oil-fired boilers (10) are estimated to be 8.5 tons per year.
 - b. Total uncontrolled NO_x emissions from NMCPCP's emergency diesel fired generators (3) are estimated to be 61 tons per year.
 - c. Total uncontrolled NO_x emissions from NMCPCP's multiple hearth incinerators (6) are estimated to be 168.7 tons per year.
 - d. Total uncontrolled NO_x emissions from NMCPCP are estimated to be 238.3 tons per year.

27. DEQ recognizes that all natural gas fired boilers, diesel fired emergency generators and multiple hearth incinerators numbered P1, P2, P5 and P6 in the County's RACT for NO_x analysis are exempt from RACT as defined in 9 VAC 5-40-311 of the SAPCB Regulations.
28. The County's RACT analysis determined and DEQ concurs that it is not cost-effective to control NO_x emissions beyond current practices from incinerator numbers P3 and P4 in the County's RACT analysis. RACT for the incinerators is proper operation and maintenance in accordance with the manufacturer's specifications and good air pollution control practices.
29. On January 21, 1999, a public hearing was held to solicit comment on the proposed Draft Consent Agreement. No members of the public attended the meeting or submitted written comments. Written comments were received from the U.S. Environmental Protection Agency (EPA) Region III.
30. This Consent Agreement addresses the comments received from EPA, Region III.

SECTION E: Agreement

Accordingly, in consideration of the above Sections A, B, C and D which are hereby incorporated in this Agreement and the mutual promises and agreements set forth below and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, DEQ on behalf of the Board and the County agree that:

1. NO_x emissions from the NMCPCP shall be controlled as outlined in this Agreement.
2. NO_x emissions from the P3 and P4 multiple hearth incinerators (MHI) shall be controlled by proper operation and good combustion practices. A copy of all relevant operation, maintenance and specification documents as provided by the manufacturer for each unit and device shall be maintained on the premises of the facility for each unit. The gas temperature on combustion hearths shall be maintained between 1150° F and 1800° F with a flue gas oxygen concentration maintained below 13.0% O₂ (dry volume basis) except during startup and shutdown.

3. The County shall submit an annual report to the Regional Director detailing all non-compliance conditions (excursions) for incinerators P3 and P4 lasting in excess of one (1) hour. The County shall, at a minimum, keep a daily log which documents the daily sludge throughput, the hourly hearth temperatures and the hourly oxygen concentrations of flue gas in the multiple hearth incinerators. The daily log shall provide sufficient information to demonstrate compliance with the conditions of this Agreement. As a minimum, the non-compliance report shall include the following for the day of the excursion:
- a. The daily throughput of sludge (dry tons) processed in the incineration units;
 - b. The incinerator unit's hourly flue gas oxygen content (dry volume basis);
 - c. The incinerator unit's hourly gas temperatures on the combustion hearths.

Additionally, an annual report demonstrating compliance with all NO_x RACT requirements set forth herein shall be submitted. Detailed documentation of the daily log shall be maintained at the facility and made available to the DEQ upon reasonable notice at any time.

4. The County shall maintain records of all operating parameters necessary to demonstrate compliance. These records shall include all of the following:
- a. A maintenance schedule;
 - b. Scheduled and unscheduled maintenance records;
 - c. Inventory of spare parts that are needed to minimize durations of equipment breakdowns;
 - d. Written operating procedures; and
 - e. Results of annual calibrations of oxygen analyzers, temperature monitors and sludge throughput monitors.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

5. NO_x emissions from the 1.26 x 10⁶ Btu/hr distillate oil fired boiler located at Building DD shall be controlled by proper operation and good combustion practices. A copy of all relevant operation, maintenance and specification documents as provided by the manufacturer for the boiler shall be maintained on the premises of the facility.
6. Air emissions from all combustion units at the facility, including those specifically called out in this Agreement, shall be controlled by adequate maintenance and proper operation at all times, including periods of startup, shutdown and malfunction, to the extent practicable, in a manner consistent with good air pollution control practices such that emissions are minimized.
7. At any time in the future, should the County plan any modifications (within the context of the new source review program or the Virginia Pollution Discharge Elimination Program (VPDES)) of the NMCCPCP, the affected facility covered by this Agreement, the County shall have the right to apply to the Board for a new source review permit and the Board may consent to such modifications provided such modifications will meet all of the new source review permit program regulatory requirements in existence at that time.
8. The Board may modify, rewrite, or amend this Agreement with the consent of NMCCPCP, for good cause shown by NMCCPCP, or on its own motion provided approval of the changes is accomplished in accordance with SAPCB regulations, the Administrative Process Act (§ 9-6.14:1 et. seq.) and 40 CFR Part 51 (Requirements for Preparation, Adoption, and Submittal of Implementation Plans).
9. So long as this Agreement remains in effect, the County waives the right to any hearing pursuant to §§ 9-6.14:11 and 9-6.14:12 of the Code and to judicial review of any issue of fact or law contained herein relating to RACT requirements for NMCCPCP. Nothing herein, however, shall be construed as a waiver of the right to a hearing or to judicial review of any action taken by the Board to enforce this Agreement.
10. Failure by the County to comply with any of the terms of this Agreement shall constitute a violation of an Order of the Board. Nothing herein shall waive the

initiation of appropriate enforcement actions or the issuance of additional 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.

11. The County declares it has received fair and due process under the Administrative Process Act (§ 9-6.14:1 et. seq.) relating to RACT requirements for NMCPCP.
12. This Agreement shall become effective upon signature by both parties and shall continue in effect indefinitely or until otherwise terminated by the Board.

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The foregoing Consent Agreement has been executed by the DEQ on behalf of the STATE AIR POLLUTION CONTROL BOARD of the COMMONWEALTH OF VIRGINIA and on behalf of the BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA, each by its duly authorized representatives, or self, on the dates indicated below.

DEPARTMENT OF ENVIRONMENTAL QUALITY
OF THE COMMONWEALTH OF VIRGINIA

12/13/99 BY: *Dennis H. Treacy*
(date) Dennis H. Treacy
Director

BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA

Oct. 26, 1999 BY: *Robert J. O'Neill, Jr.*
(date) Robert J. O'Neill, Jr.
County Executive

STATE OF Virginia
CITY/COUNTY OF Fairfax

The foregoing instrument was acknowledged before me this 26th day of October, 1999, by Robert J. O'Neill, Jr., County Executive, on behalf of the Board of Supervisors of Fairfax County, Virginia.

My commission expires 12/31/99.

John S. Morgan
Notary Public

