COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
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STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
THE CITY OF RICHMOND
FOR
RICHMOND WASTEWATER TREATMENT PLANT
VPDES Permit No. VA0063177

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and the City of Richmond, regarding the Richmond Wastewater Treatment Plant, for the purpose of resolving certain violations of the State Water Control Law, the Virginia Pollutant Discharge Elimination System Permit Regulation and the above-referenced Permit.

SECTION B: Definitions

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

1. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

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

3. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.

4. "DMR" means Discharge Monitoring Report.

5. "Facility" or "Plant" means the Richmond Wastewater Treatment Plant located at 1400 Brander Street in Richmond, Virginia, which treats and discharges treated sewage, stormwater runoff, and other municipal wastes, for the residents and businesses of the City of Richmond.

6. "LF" means linear feet.

7. "Richmond" means City of Richmond, a political subdivision of the Commonwealth of Virginia. Richmond is a "person" within the meaning of Va. Code § 62.1-44.3.

8. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.

9. "O&M" means operations and maintenance.

10. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.

11. "Permit" means VPDES Permit No. VA0061377, which was issued under the State Water Control Law and the Regulation to Richmond on March 21, 2005 and which expired on March 20, 2010, but which is administratively continued until a new permit is issued.

12. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.

13. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 *et seq.*

14. "SSO" means sanitary sewer overflow.

15. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.

16. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3.

17. "Va. Code" means the Code of Virginia (1950), as amended.

18. "VAC" means the Virginia Administrative Code.

19. "VPDES" means Virginia Pollutant Discharge Elimination System.

20. "Warning Letter" or "WL" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.

SECTION C: Findings of Fact and Conclusions of Law

1. Richmond owns and operates the Plant in Richmond, Virginia. The Permit allows Richmond to discharge treated sewage, stormwater runoff, and other municipal wastes

from the Plant to the James River, in strict compliance with the terms and conditions of the Permit.

2. The James River is located in the James River (Lower) Basin. The James River is listed in DEQ's 305(b) report as impaired for fecal coliform, nutrient enrichment, kepone, PCBs and benthic impairment.

3. In submitting its DMRs, as required by the Permit, Richmond has indicated that it exceeded discharge limitations contained in Part I.A.1 of the Permit, for chlorine (Parameter 005), in July 2009. Richmond also failed to meet the Permit's minimum with respect to pH in April, May, June, and November of 2009 and chlorine (Parameter 213) in September, October, November, and December of 2009.

4. In addition, Richmond reported eight dry-weather sanitary sewer overflows from April 2009 through December 2009.

5. PRO issued NOVs for the Permit limit violations listed in Section C3 above and the SSOs on November 20, 2009 and February 11, 2010.

6. The Department met with Richmond on December 21, 2009, to discuss the November NOV and Richmond provided a formal written NOV response on January 11, 2010.

7. In response to pH, Richmond stated that low-influent alkalinity plus a naturally occurring pH sag from the nitrification process, combined with pH effects from chlorine and sulfur dioxide addition for disinfection, resulted in pH control issues. At the time, Richmond did not have pH adjustment capabilities; however, on May 29, 2009, Richmond installed magnesium hydroxide feed equipment to adjust pH. Richmond stated that after fine tuning the feed equipment over several months, the magnesium hydroxide addition has resolved the pH issue. Richmond also stated that the pH excursion on November 2009 occurred as a result of a technician sampling effluent mixed with flood water during a James River tidal flood which submerged the outfall. Richmond agreed in the future to sample, in a Department approved location, out of the flood impact zone if the Richmond's outfall is submerged due to James River flooding.

8. In response to chlorine, Richmond stated that maintenance issues during 2009, including a combination of line blockages, loss of water supply, product supply, and a system leak, contributed to chlorine control issues, which Richmond has corrected at a cost of $95,000 during fiscal year 2010. In addition, Richmond plans to eliminate the use of pressurized chlorine gas, and will switch to ultraviolet disinfection at a projected cost of $15,877,057, which is to be completed in 2012. According to Richmond, the switch is to a safe and effective technology that will provide consistent compliance with the Permit. In addition to maintenance issues, Richmond's chlorine control has been impacted by necessary improvements to the Shockoe Bottom interior drainage system (interconnection of the Box Sewer to the East Gravity Outlet and improvements to the Crossover Chamber) and to the Shockoe Retention Basin. Ordinarily, these facilities hold flow, allowing Richmond staff to make necessary repairs at the Plant. Richmond stated that Tropical Storm Gaston in 2003 required that these facilities be pulled off-line in order to adjust and clean them in order to improve flood control in Shockoe Bottom. Richmond

completed work on the Shockoe drainage system and retention basin in June 2010. Once ultraviolet is installed, Richmond has reasonable assurance of continued compliance with this portion of the permit.

9. The February 11, 2010, NOV cited Richmond for a violation of Part I.A.1. of the Permit because the DMR submitted for the October 2009 monitoring period indicated that the E. coli sample obtained on October 18, 2009 was not analyzed within the required holding time. The DMR also indicated that an E. coli sample was not obtained on October 19, 2009. Richmond stated in the January 11, 2010 NOV response letter that on October 20, 2009, a lab technician discovered that the sample he set up on the 19th was not completed within the allowable holding time. The technician has received compliance training.

10. With respect to the dry-weather SSOs, Richmond has 1,322 miles of sanitary and combined laterals and sewers in the city and it operates an O&M program (>$3 million) and a capital improvement program (>$10 million) for the sanitary and combined sewer system. In 2008, Richmond open-cut replaced 6,742 LF of sewer, rehabilitated utilizing cured-in-place pipe 45,981, LF, TV inspected 243,313 LF and cleaned 237,213 LF. In 2009, Richmond open-cut replaced 8,205 LF of sewer, rehabilitated utilizing cured-in-place pipe 26,671 LF, TV inspected 147,614 LF and cleaned 204,924 LF. Since the City has a robust program addressing SSOs, corrective action is not required.

11. On April 8, 2010, Richmond reported a nitrite lock condition at the Facility that interfered with the treatment process and caused Permit effluent violations of chlorine in March 2010. Richmond has indicated that the treatment process has recovered and this appeared to be a one-time occurrence. The Department concurs that no additional corrective action is necessary.

12. Richmond's operating logs indicate that it discharged treated wastewater from the Plant every day from April 1, 2008 through September 1, 2010.

13. Va. Code § 62.1-44.5 states that: "[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."

14. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.

15. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a "certificate" under the statute.

16. The Department has issued no permits or certificates to Richmond for wastewater discharges other than VPDES Permit No. VA0063177.

17. The James River is a surface water located wholly within the Commonwealth and is a "state water" under State Water Control Law.

18. On September 15, 2010, a review of DMRs submitted by Richmond for the January through August 2010 monitoring periods indicates that Richmond exceeded the permit

effluent limit for pH in February; minimum chlorine (parameter 157) in March and August; minimum chlorine (parameter 213) January, February, March and August; total suspended solids (maximum concentration) in May and June; and, total suspended solids (maximum loading). In addition, Richmond reported an additional 9 SSOs from January through August 2010.

19. Richmond has taken corrective action in response to the violations described in paragraphs 3, 9, and 18 above. However, Richmond and DEQ staff have decided that Richmond will take additional steps, provided on Appendix A and incorporated hereto, consistent with the terms of this Order.

20. Based on the results of the December 21, 2009, meeting, and the DMRs submitted by Richmond for the April 2009 through August 2010 monitoring periods, the Board concludes that Richmond has violated the Permit, Va. Code § 62.1-44.5, and 9 VAC 25-31-50, by discharging treated sewage and municipal wastes from the Plant while concurrently failing to comply with the conditions of the Permit.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 62.1-44.15 and upon consideration of Va. Code § 10.1-1186.2, the Board orders Richmond, and Richmond agrees, to perform the actions described below and in Appendices A and B of this Order. In addition, the Board orders Richmond, and Richmond voluntarily agrees, to pay a civil charge of $14,000 in settlement of the violations cited in this Order, to be paid as follows:

1. Richmond shall pay $1,400 within 30 days of the effective date of this Order. Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

   Receipts Control
   Department of Environmental Quality
   Post Office Box 1104
   Richmond, Virginia 23218

   Richmond shall include its Federal Employer Identification Number (FEIN) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF).

2. Richmond shall satisfy $12,600 of the civil charge by satisfactorily completing the Supplemental Environmental Project (SEP) described in Appendix B of this Order.

3. The net project cost of the SEP to Richmond shall not be less than the amount set forth in Paragraph D.2. If it is, Richmond shall pay the remaining amount in accordance with Paragraph D. 1 of this Order, unless otherwise agreed to by the Department. "Net project costs" means the net present after-tax cost of the SEP, including tax savings, grants, and first-year cost reductions and other efficiencies realized by virtue of project

implementation. If the proposed SEP is for a project for which the party will receive an identifiable tax savings (*e.g.*, tax credits for pollution control or recycling equipment), grants, or first-year operation cost reductions or other efficiencies, the net project cost shall be reduced by those amounts. The costs of those portions of SEPs that are funded by state or federal low-interest loans, contracts, or grants shall be deducted.

4. By signing this Order, Richmond certifies that it has not commenced performance of the SEP.

5. Richmond acknowledges that it is solely responsible for completing the SEP project. Any transfer of funds, tasks, or otherwise by Richmond to a third party, shall not relieve Richmond of its responsibility to complete the SEP as described in this Order.

6. In the event it publicizes the SEP or the SEP results, Richmond shall state in a prominent manner that the project is part of a settlement of an enforcement action.

7. The Department has the sole discretion to:
   a. Authorize any alternate, equivalent SEP proposed by Richmond; and

   b. Determine whether the SEP, or alternate SEP, has been completed in a satisfactory manner.

8. Should the Department determine that Richmond has not completed the SEP, or alternate SEP, in a satisfactory manner, the Department shall so notify Richmond in writing. Within 30 days of being notified Richmond shall pay the amount specified in Paragraph D.2., above, as provided in Paragraph D.1., above.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of Richmond for good cause shown by Richmond, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.

2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the Facility; or (3) taking subsequent action to enforce the Order.

3. For purposes of this Order and subsequent actions with respect to this Order only, Richmond admits the jurisdictional allegations, and agrees not to contest, but neither admits nor denies, the findings of fact, and conclusions of law contained herein.

4. Richmond consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Richmond declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.

6. Failure by Richmond to comply with any of the terms of this Order 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 or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Richmond shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Richmond shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Richmond shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which Richmond intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Richmond. Nevertheless, Richmond agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until:

a. Richmond petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or

b. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to Richmond.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Richmond from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by Richmond and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.

13. The undersigned representative of Richmond certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind Richmond to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Richmond.

14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.

15. By its signature below, Richmond voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____ day of _____, 2010.

_____

Michael P. Murphy, Regional Director
Department of Environmental Quality

The City of Richmond voluntarily agrees to the issuance of this Order.

Date: 18 October 2010 By: _____, Interim Director
(Person) (Title) Department of Public Utilities
The City of Richmond

Commonwealth of Virginia
City/County of Richmond

The foregoing document was signed and acknowledged before me this 18th day of

October, 2010, by Robert C. Steidel who is

Interim Director of Public Utilities of the City of Richmond, on behalf of the City.

Michelle W. Tarry
Notary Public

7091601
Registration No.

My commission expires: 2/28/2011

Notary seal:

MICHELLE WEBSTER TARRY
COMMONWEALTH OF VIRGINIA
NOTARY PUBLIC

18 Oct. 10

APPENDIX A
SCHEDULE OF COMPLIANCE

1. pH Effluent Violations

   a. Thirty days after issuance of the Order, Richmond must submit to the Department for review and approval an O&M manual incorporating the necessary operations and maintenance procedures for the magnesium hydroxide pH control system.

2. Chlorine Effluent Violations

   a. On or before December 31, 2012, Richmond shall place in operation an ultraviolet disinfection system at the Plant in accordance with the provisions of a certificate to construct.

   b. The parties acknowledge that during the period of corrective action, Richmond may experience additional violations of chlorine (parameter 005) instantaneous maximum and chlorine (parameter 213) instantaneous minimum Permit limitations. Accordingly, pending completion of the corrective action, Richmond shall operate the Facility in a manner that produces the best quality effluent of which it is capable, in order to minimize such additional violations and minimize potential impacts to water quality. The parties acknowledge that during the completion of work authorized by this Order that Richmond may experience additional violations of chlorine instantaneous maximum and instantaneous minimum.

   c. No later than thirty days after completion of construction of the ultraviolet disinfection system, Richmond must submit to the Department for review and approval an O&M manual incorporating the necessary operations and maintenance procedures for the ultraviolet system.

APPENDIX B

Richmond shall perform the SEP identified below in the manner specified in this Appendix.

1. The SEP to be performed by the City of Richmond is to undertake a program of stream cleanups for selected tributaries on the north and south sides of the City. The goal of these cleanups will be to improve water quality in the James River. Three stream cleanups will be scheduled and completed by the November 30, 2011. The cleanups will be planned for the Reedy Creek watershed on the south side of the James River and the Cannon's Branch watershed on the north side of the James River. Both watersheds have a combination of commercial and residential uses and accumulate trash and debris along the stream channels.

2. The SEP shall be completed by November 30, 2011.

3. Richmond shall submit a written final report on the SEP, verifying that the SEP has been completed in accordance with the terms of this Order, with written verification of the final overall and net project cost of the SEP in the form of a certified statement itemizing costs, invoices and proof of payment, or similar documentation and certified by a Certified Public Accountant. Richmond shall submit the final report and certification to the Department within 45 days of the SEP's completion.

4. If the SEP has not or cannot be completed as described in the Order, Richmond shall notify DEQ in writing within 48 hours of discovery. Such notification shall include:

    a. an alternate SEP proposal, or
    b. agreement to pay the amount specified in Paragraph D.2 as described in paragraph D.1 within 30 days of notification.

5. Richmond hereby consents to reasonable access by DEQ or its staff to property or documents under the party's control, for verifying progress or completion of the SEP.

6. <u>DEQ Contact</u>

Unless otherwise specified in this Order, Richmond shall submit all requirements of Appendix A and B of this Order to:

Frank Lupini
Enforcement Specialist
VA DEQ –Piedmont Regional Office
4949A Cox Road,
Glen Allen, Virginia 23060
Frank.Lupini@deq.virginia.gov