



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
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**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
City of Portsmouth
FOR
Lake Kilby Water Treatment Facility
VPDES Permit No. VA0006301**

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 Portsmouth concerning the Lake Kilby Water Treatment Facility for the purpose of resolving certain violations of the Permit, the State Water Control Law, and the VPDES Permit Regulation.

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. "City" means the City of Portsmouth, a political subdivision of the Commonwealth of Virginia. The City is a "person" within the meaning of Va. Code § 62.1-44.3.
3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
4. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.

5. "Discharge" means discharge of a pollutant. 9 VAC 25-31-10.
6. "Discharge of a pollutant" when used with reference to the requirements of the VPDES permit program means:
 - a. Any addition of any pollutant or combination of pollutants to surface waters from any point source; or
 - b. Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.
7. "Facility" means the City of Portsmouth Lake Kilby Water Treatment Facility located at 105 Maury Place in Suffolk, Virginia, that treats raw water for public distribution.
8. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
9. "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.
10. "Permit" means VPDES Permit No. VA0006301, which was issued under the State Water Control Law and the Regulation to the City effective May 21, 2005, and expired May 20, 2010. The Permit was renewed effective May 21, 2010, and expires May 20, 2015.
11. "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC § 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. 9 VAC 25-31-10.
12. "Pollution" means such alteration of the physical, chemical, or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the Board, are "pollution." Va. Code § 62.1-44.3.

13. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 *et seq.*
14. "State Water Control Law" means Chapter 3.1 (§§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.
15. "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.
16. "305(b) report" means the report required by Section 305(b) of the Clean Water Act [33 United States Code § 1315(b)] and Va. Code § 62.1-44.19:5 for providing Congress and the public an accurate and comprehensive assessment of the quality of State surface waters.
17. "TRO" means the Tidewater Regional Office of DEQ, located in Virginia Beach, Virginia.
18. "Va. Code" means the Code of Virginia (1950), as amended.
19. "VAC" means the Virginia Administrative Code.
20. "VPDES" means Virginia Pollutant Discharge Elimination System.
21. "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. The City owns and operates the Facility in Suffolk, Virginia, where it treats raw water for the production of potable water for consumption by City residents. The raw water is pumped to the Facility directly from Lake Kilby and Lake Meade and from a third pump station (on Pitchkettle Road), also on Lake Meade about a mile from the Facility. The Permit authorizes the City to discharge wastewater from the treatment process from a settling lagoon into Lake Meade through Outfall 001 within limits for pH and total suspended solids.
2. On January 14, 2010, the City reported that 700,000 gallons of partially treated raw water had discharged from the Facility into Lake Meade when the coagulant pumps in the Facility's clarifier unit malfunctioned. The partially treated water was diverted to the settling lagoon, which was unable to contain the volume of diverted water, causing the water to discharge to Lake Meade through the lagoon's overflow weir. The City was issued Warning Letter No. W2010-02-T-1001 dated February 22, 2010, for the unauthorized discharge to State waters.

3. In response to the WL, the City stated that it would be revising the Facility's standing operating procedure requiring, among other things, Facility operators, in the event of a major upset, to close the drain valves that convey process wastewater from the clarifier units to the settling lagoon to allow excess water to flow into old, abandoned clarifier basins.
4. On June 26, 2012, a Facility operator reported telephonically to DEQ an anticipated major upset at the Facility that might result in the discharge of partially treated water to Lake Meade. In the Facility's "five-day" letter dated June 27, 2012, the operator confirmed that an unknown quantity of improperly treated water had discharged to Lake Meade as the result of an upset at the Facility when the partially treated water was diverted from the filtration units. The response stated, in effect, that the quantity of water was such (approximately 600,000 gallons discharging at 4,400 gallons per minute) that it overwhelmed the emergency overflow weir in the settling lagoon and the junction vault intended to contain routine overflows. According to the letter the upset continued for three hours and 45 minutes.
5. DEQ compliance staff conducted a Facility inspection on August 22, 2012, and met with the Facility manager who reiterated the information contained in the June 27, 2012, Facility letter and provided additional information. The manager stated that the upset had occurred when the source of raw water for the Facility was being switched from the Pitchkettle Road pump station to the primary intake point on Lake Meade. The distinctive pink color of an excess amount of one of the chemicals used in the treatment process, sodium permanganate, was already present in the Facility's clarifier units. Facility operators had tried to divert the partially treated water from the filtration units to the old, abandoned clarifier basins, but were unsuccessful as the valves intended to convey process wastewater to the settling lagoon failed to close, apparently from disuse. The settling lagoon was unable to contain the amount of water being diverted from the filtration units.
6. During the August 22, 2012, Facility inspection the manager also stated that the source of the excess sodium permanganate was unknown, but assumed that it had pooled in one of the three wet wells where raw water enters the Facility. That wet well reportedly had not been in use during the period when raw water was being pumped from the Pitchkettle Road pump station. The manager subsequently provided to DEQ compliance staff photographs of the upset as it progressed through the Facility including photographs of a large volume of pink water pouring out of the junction vault directly into Lake Meade. The junction vault is not the permitted outfall.
7. On September 6, 2012, DEQ issued Notice of Violation No. 2012-09-T-0001 for the unauthorized discharge of a pollutant to State waters described in paragraphs C(4) through C(6), above.
8. DEQ compliance and enforcement staff visited the Facility on September 18, 2012, to review the operation of the Facility and the events of June 26, 2012, with the Facility manager and operator and a representative of the City. Staff were advised that sodium

permanganate is a chemical oxidizer used in the water-treatment process to disinfect and to remove certain contaminants from the raw water. Diverting the partially treated water away from the filtration units did not exacerbate the unauthorized discharge, but was done to prevent damage to the filter material from excess oxidation. The partially treated water was diverted before it entered the drinking-water distribution system.

9. On September 19, 2012, the City representative provided to DEQ enforcement staff by electronic mail a written chronology of the events of June 26, 2012, and a summary of actions Facility personnel have since taken to prevent a recurrence. The City's chronology reflects that the red coloration (indicative of the possible overfeed of sodium permanganate) appeared in the first stage of the treatment system within fifteen minutes of the sodium permanganate feed pump having been activated. This observation is consistent with the Facility manager's assertion that a large volume of sodium permanganate may already have been present in one of the wet wells when the raw water entered the Facility. The City's written response of September 19, 2012, stated that, among other things, Facility operators have been instructed to keep wet-well gate valves closed when not in use; flush the lines of the sodium permanganate feed pumps when they are taken off line; and notify a supervisor if the operator when conducting nightly inventories observed an increase in the amount of sodium permanganate used during the previous day.
10. DEQ enforcement staff met with a representative of the City and the Facility manager on December 18, 2012. The representations made by the City and Facility representatives were confirmed in writing on December 19, 2012. The root cause of the unauthorized discharge was determined to have been the overfeeding of liquid sodium permanganate into the raw water entering the Facility by operators who were not yet fully proficient in the operation of a newly installed liquid-feed system after recent conversion from a dry-feed system. As a consequence, raw water oversaturated with sodium permanganate had accumulated in a wet well while the pump station associated with that well had been off-line for maintenance. When the pump station was restarted, the raw water entering the wet well flushed the oversaturated water that had accumulated in the wet well into the treatment system. A protocol has been implemented to prevent liquid sodium permanganate from accumulating in an unused wet well that includes frequent visual inspections, the flushing and calibration of feed pumps, and revised procedures for the testing of chemical residuals and the dosing of liquid sodium permanganate.
11. At the December 18, 2012, meeting, and in the December 19, 2012, written confirmation the City and Facility representatives outlined new procedures that will be followed in the event of a chemical or equipment failure at the Facility that will include isolating the impacted clarifiers by closing influent and effluent valves, taking in-service filters off line, and using the off-line clarifier (only two of the three clarifier units are used at a time with the third on standby) to maintain the proper flow through the Facility rather than diverting the excess flow to the settling lagoon. If additional storage capacity is needed, the excess flow will be diverted to the abandoned clarifier basins. They also reported that routine maintenance will now include ensuring that the settling lagoon drain valves are working properly and that all Facility personnel are being trained on the new procedures.

12. 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.”
13. The Permit at Part II.F. prohibits the discharge of pollutants into state waters, except in compliance with Permit conditions.
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 the City for the Facility other than VPDES Permit No. VA0006301.
17. Sodium permanganate is considered a pollutant under 9 VAC 25-31-10 because it may cause or contribute to pollution of state waters by creating a nuisance or by rendering such waters harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life.
18. Lake Meade is surface waters located wholly within the Commonwealth and is “state waters” under State Water Control Law. Lake Meade is located in the James River Basin and is listed in DEQ’s 305(b) report as impaired due to excess phosphorus and low dissolved oxygen. The source of the impairments is unknown. Lake Meade provides beneficial uses including the support of aquatic life. There is no evidence that the discharge described herein has contributed to the listed impairments.
19. Based on the reports from the City of June 26, 2012, June 27, 2012, September 19, 2012, and December 19, 2012, and the observations by DEQ staff on August 22, 2012, and September 18, 2012, the Board concludes that the City has violated the Permit, Va. Code § 62.1-44.5 and 9 VAC 25-31-50, by discharging sodium permanganate from the Facility junction vault while concurrently failing to comply with the conditions of the Permit, as described in paragraphs C(4), C(5), C(6), C(8) and C(9), above.
20. The City has submitted documentation as noted in paragraphs C(10) and C(11), above, that verified that the violation described herein has been corrected.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 62.1-44.15, the Board orders the City, and the City agrees to pay a civil charge of \$6,825 within 30 days of the effective date of the Order in settlement of the violations cited in 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

The City shall include its Federal Employer Identification Number (FEIN) (54-6001512) 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).

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of the City for good cause shown by the City, 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, the City admits the jurisdictional allegations and agrees not to contest, but does not admit, findings of fact, and conclusions of law contained herein.
4. The City consents to venue in the Circuit Court of the City of Portsmouth for any civil action taken to enforce the terms of this Order.
5. The City 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 the City 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. The City 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 unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. The City shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. The City 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 the City 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 the City.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after the City has completed all of the requirements of the Order;
 - b. the City 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.

- c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to the City.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve the City 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 the City 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 the City 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 the City to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of the City.
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, the City voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 14 day of March, 2013.



Regional Director
Department of Environmental Quality

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

Date: JAN 9, 2013 By: John L. Rowe, Jr., CITY MANAGER
(Person) (Title)
City of Portsmouth

Commonwealth of Virginia

City/County of Portsmouth

The foregoing document was signed and acknowledged before me this 9th day of January, 2013, by John L. Rowe, Jr. who is City Manager of the City of Portsmouth on behalf of the City.

Regina Humphrey
Notary Public

255181

Registration No.

My commission expires: July 31, 2013

Notary seal:

Regina Humphrey
Notary Public
Commonwealth of Virginia
255181