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VIRGINIA WASTE MANAGEMENT BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
GREENE COUNTY
FOR
GREENE COUNTY SANITARY LANDFILL
Solid Waste Permit No. 266

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 10.1-1455, between the Virginia Waste Management Board and Greene County, regarding the Greene County Sanitary Landfill, for the purpose of resolving violations of the Virginia Waste Management Act and the applicable permit and regulations.

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 Virginia Waste Management Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and -1401.

2. "County" means Greene County, a political subdivision of the Commonwealth of Virginia. Greene County is a "person" within the meaning of Va. Code § 10.1-1400.

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. "Facility" or "Landfill" means Greene County Sanitary Landfill, located at 568 Mays Road (VA Rte. 654), southeast of Stanardsville in Greene County, Virginia, which is owned and operated by Greene County.

6. "Gas detection wells" or "wells" are the perimeter gas monitoring points installed for sampling, analyzing and detecting landfill gas migration off-site. These are installed at the boundaries of the landfill.

7. "Gas remediation vents" or "vents" are holes bored into the landfill at selected locations to passively direct landfill gas emissions away from the landfill boundaries. An "Active" gas remediation system is one in which these vents are connected to a mechanical vacuum to assist in landfill gas extraction.

8. "Groundwater monitoring wells" or "GW wells" are monitoring points installed for sampling, analyzing and detecting any impact to the uppermost aquifer from landfill decomposition or leachate.

9. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 10.1-1455.

10. "Order" means this document, also known as a "Consent Order" or "Order by Consent."

11. "Permit" means Solid Waste Permit (SWP) No. 266, which was issued under the Virginia Waste Management Act and the Regulations to Greene County on October 29, 1985.

12. "VRO" means the Valley Regional Office of DEQ, located in Harrisonburg, Virginia.

13. "Regulations" or "VSWMR" means the Virginia Solid Waste Management Regulations, 9 VAC 20-81-10 *et seq.*

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

15. "VAC" means the Virginia Administrative Code. 9 VAC 20-80 *et seq.* was repealed in the Virginia Register Volume 27, Issue 12, effective March 16, 2011, and superseded by 9 VAC 20-81 *et seq.* All VAC citations in this Order relate to the regulations in effect at the time.

16. "Virginia Waste Management Act" means Chapter 14 (§ 10.1-1400 *et seq.*) of Title 10.1 of the Va. Code. Article 2 (Va. Code §§ 10.1-1408.1 through -1413.1) of the Virginia Waste Management Act addresses Solid Waste Management.

17. "Warning Letter" or "WL" means a type of Notice of Alleged Violation under Va. Code § 10.1-1455.

SECTION C: Findings of Fact and Conclusions of Law

1. On October 29, 1985, Greene County was granted a permit to operate a Sanitary Landfill by the Commissioner of the Virginia Department of Health, predecessor-in-interest to the Director of DEQ. The Permit allowed the receipt and disposal of municipal solid waste.

2. The Landfill was originally permitted on October 29, 1985 under Solid Waste Permit No. 266. The Facility was operated as a Sanitary Landfill until March 31, 1993 when it ceased receiving waste. Closure activities began at the Facility in 1994 but were not certified by an engineer until 1999. Closure activities are subject to the Virginia Waste Management Act, the Regulations, and the Permit. The Landfill was certified as closed by the County's engineering consultant on February 23, 1999. Groundwater monitoring and landfill gas vent systems were not installed in the landfill cap at closure.

3. On May 19, 1998, a Landfill Gas Monitoring Plan for the facility was submitted. The County installed 11 (denoted GP-1 through GP-11) landfill gas detection wells around the perimeter of the landfill property in 1998 and began quarterly monitoring in July 1998. Elevated levels of decomposition gases were detected immediately, and the facility appears to have been in violation with the requirements of 9 VAC 20-80-280.A (control of decomposition gases) until March 2011. There is a residence located within approximately sixty feet of the property boundary (approximately 200 feet from the edge of the fill area). The porch and crawl space areas (there is no basement) were tested for methane levels and the results submitted to the DEQ revealed no exceedances.

4. On May 19, 1999, August 30, 2000 and June 30, 2003, the County submitted three Gas Remediation Plan (GRP) revisions to initiate landfill gas remediation. These plans were submitted to the DEQ to meet the requirements of 9 VAC 20-80-280. The June 30, 2003 GRP for the first phase of gas remediation for methane venting and passive gas remediation was approved on July 20, 2006. The approved GRP required the installation of landfill vents within 90 days of the plan approval date. Accordingly, vent installation should have occurred by October 18, 2006.

5. On July 20, 2006, the DEQ issued a letter to the County authorizing the immediate implementation of the modified GRP. According to the letter, all vents should have been installed and operational by October 18, 2006. The following was also requested in the letter: "Please note that landfill gas remediation will require a Minor Permit Amendment for Permit Modules I and XIV. Please submit a Notice of Intent (NOI) letter, prepared in accordance with Virginia Solid Waste Management Regulations (VSWMR), 9 VAC 20-80-500.B, with an attached Disclosure Statement and Local Government Certification to this office by August 31, 2006."

6. On November 13, 2007, DEQ staff performed an inspection of the Facility for compliance with the GRP and landfill closure requirements. Staff observed the following:

a. The first phase of the gas remediation system had not been installed as required by the GRP approval letter dated July 20, 2006.
9 VAC-20-80-280 stated that "Owners or operators of solid waste disposal facilities shall develop a gas management plan in accordance with this section. Venting and control of decomposition gases shall be implemented for all sanitary landfills under 9 VAC20-80-250 B and other landfills where required under 9 VAC20-80-260 B 9 or 9 VAC20-80-270 B 18 to protect the facility cap, and to prevent migration into strictures or beyond the facility boundary. The contents of the plan shall also reflect the requirements contained in 40 CFR 60.33c and 40 CFR 60.750 (Standards of performance for new and guidelines for control of existing municipal solid waste landfills) and 9 VAC5-40-5800, as appropriate..."

b. A NOI letter, prepared in accordance with VSWMR 9 VAC 20-80-500.B, with an attached Disclosure Statement and Local Government Certification was not submitted to VRO as required in the GRP approval letter dated July 20, 2006.

9 VAC 20-80-500(A) stated that "Any person who proposes to establish a new solid waste management facility ("SWMF"), or modify an existing SWMF, shall submit a permit application to the department, using the procedures set forth in this section and other pertinent sections of this part."

Additionally, a County representative stated that the County did not implement the GRP on the specified schedule, claiming difficulty with 1) weather; 2) procurement of drilling services; and 3) funding. The DEQ deferred enforcement action on failure to implement the GRP until December 2007 when it learned that the County Board of Supervisors had decided to withdraw the project funding.

7. On December 9, 2007 a copy of the gas monitoring data from the June 8 and September 21, 2007 sampling events was received by VRO staff. The sampling data showed that, in both events, the methane levels exceeded the lower explosive limit (LEL) in well numbers GP8, GP9 and GP10. 9 VAC 20-80-280 requires the Facility operator to implement a gas management plan that will prevent the methane levels from exceeding the LEL at the Facility boundary.

8. On December 17, 2007, based on the inspection and follow-up information, DEQ issued Notice of Violation (NOV) No. WS-07-12-VRO-016, to Greene County for the violations described in paragraphs 6 through 7 (failure to implement the GRP).

9. On January 31, 2008, DEQ and County staff met to discuss potential resolution of the violations noted in the 2007 NOV. During the meeting, a County Representative agreed to enter into a Letter of Agreement (LOA) with the DEQ.

10. On March 27, 2008, the LOA, signed and notarized by the County, was received by the DEQ. The LOA required the installation of the gas remediation vents as described in the June 30, 2003 revision of the GRP plus the one additional vent and plan modifications referenced in the July 20, 2006 approval letter. The LOA also included the following

language, "A total of seventeen [gas remediation] vents are to be installed, including thirteen located within the five former waste disposal trenches and four in soil in specified locations outside of the waste trenches." As agreed to in the LOA, the installation of said vents was to commence no later than June 1, 2008.

11. On April 17, 2008, the Alternate Source Demonstration (ASD) for groundwater submitted by the County to address the exceedances noted in groundwater (GW) monitoring well MW-6 was denied. DEQ requested the County's response by July 15, 2008 with the submittal of additional information for further consideration of the ASD or move into the next phase of groundwater monitoring.

12. On June 1, 2008, DEQ staff performed a site visit and observed that installation of the gas remediation vents had not begun. DEQ staff informed on-site County staff that the LOA conditions required the installation of the vents to begin that day.

13. On June 9, 2008, a County employee called the DEQ and stated that the gas remediation vents had not been installed on June 1, 2008 or any time that week and that the locations for the vents were going to be staked on June 9, 2008.

14. On June 11, 2008, DEQ staff spoke with the County's consultant and was informed that the County had not signed a contract in order to proceed with the installation of the gas remediation vents, so staking of the vent locations is all that would be performed at this time. On July 23, 2008, DEQ staff received a copy of a letter from Greene County stating that it accepted the bid given by the consultant for installation of the gas remediation system.

15. On July 15, 2008, the County failed to respond to the ASD review, as noted under paragraph 11. In a letter dated July 25, 2008, the DEQ requested the County's response to the ASD review no later than August 22, 2008.

16. On August 11, 2008, DEQ staff reviewed the 2007 annual groundwater report and noted the following:

    a. Monitoring well MW-1 must be properly abandoned.

       9 VAC 20-80-300(A)(3)(a) stated that " A ground water monitoring system shall be installed consisting of a sufficient number of wells, at appropriate locations and depths, capable of yielding ground water samples from the uppermost aquifer that:..."

    b. Proposed Groundwater Protection Standards (GPS) and a variance for use of Alternate Concentration Limits (ACL) must be submitted

       9 VAC 20-80-300(B)(3)(d)(4) stated that "Within 180 days, submit proposed ground water protection standards for all constituents detected pursuant to subdivision 3 b of this subsection. The ground water protection standards shall be

approved by the director in accordance with subdivision 3 h or i of this subsection and placed in the facility's operating record..."

c. Failure by the County to submit the amended ASD or move to the next phase of monitoring to address the exceedances noted in well MW-6.

9 VAC 20-80-300(B)(3)(g)(1) stated that "Characterize the nature and extent of the release by installing additional monitoring wells as necessary"

9 VAC 20-80-310(A) stated that "Within 90 days of finding that any of the constituents listed in Table 5.1 have been detected at a statistically significant level exceeding the ground water protection standards, the owner or operator shall initiate an assessment of corrective measures or a proposal for presumptive remedies. The assessment of corrective measures, or the proposal for presumptive remedies shall be completed within 180 days from the date the constituents have been detected above the ground water protection standard at statistically significant levels. The 180-day period may be extended by the director for good cause..."

17. On September 5, 2008, DEQ staff sent a draft Consent Order to Greene County. Greene County refused to sign the Order in a September 11, 2008, letter to DEQ, stating that it disagreed with the penalty amount, based on specific situational factors, and reiterated the difficulties it had experienced in obtaining bids for the remediation work being the major reason for the project delay.

18. On September 12, 2008, DEQ staff received the first gas monitoring results for the gas remediation system.

19. On September 15, 2009, DEQ staff reviewed the 2008 Annual Groundwater Report and noted the following:

    a. Monitoring Well MW-1 must be properly abandoned 9 VAC 20-80-300(A)(3);

    b. The compliance monitoring well network needs refinement, to include the installation of additional wells, 9 VAC 20-80-300(A)(3);

    c. Submission of proposed GPS and a variance for use of ACL, 9 VAC 20-80-300(B)(3)(d)(4);

    d. Failure by the County to submit the amended ASD or move to the next phase of monitoring to address the exceedances noted in Well MW-6, 9 VAC 20-80-300(B)(3)(g)(1) and 20-80-310(A);

20. A meeting was held on October 23, 2009, between DEQ staff and Greene County staff, including the County's contractor to review the non-compliant gas readings from the gas probes and the groundwater monitoring program. The agreements made in the meeting

were memorialized in an October 30, 2009 letter from DEQ to Greene County requiring the following:

a. Install ventilators on five gas remediation vents, sample the boundary gas probes for six months, propose a corrective action plan if sampling does not prove compliance with the submission of a revised GRP by November 14, 2009, and submit a revised location map confirming the location of each gas remediation vent, by December 30, 2009.

b. Submit the Well Abandonment Report for well MW-1 by November 30, 2009 and submit a work plan with a proposed timeframe for installation of additional GW monitoring wells by December 30, 2009.

c. Submit proposed GPS and a variance for the use of ACLs by October 30, 2009.

d. Because exceedances for the organic constituents in well MW-6 had not been adequately addressed under the ASD and the timeframes to submit a revised ASD had passed, submit a work plan for additional GW well installation to investigate the extent of the release and address the exceedance by November 30, 2009.

21. On November 3, 2009, DEQ staff received the well abandonment report for Well MW-1. DEQ sent an approval letter to the County on December 15, 2009.

22. On January 26, 2010, DEQ staff performed an inspection of the Facility. Staff made the following observations:

a. To date the facility has not submitted an updated financial assurance mechanism based on the inflation adjusted cost estimate for 2010. The anniversary date for the facility's mechanism is December 30, 2009.

   9 VAC 20-70-10 et seq. includes financial assurance regulations for solid waste disposal, transfer and treatment facilities.

b. During the inspection DEQ staff noted that numerous trees were growing on the closed landfill. In addition, standing water and a hole were found on top of the lower plateau.

   9 VAC 20-80-250(F)(1)(a) stated that "Maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover."

c. According to monitoring reports submitted by the County's consultant gas probes GP8, GP9 and GP10 are consistently above the 5% lower explosive limit (LEL), the regulatory threshold for methane at the property boundary.

9 VAC20-80-280(A)(1) stated that "To provide for the protection of public health and safety, and the environment, the operator shall ensure that decomposition gases generated at a facility are controlled during the periods of operation, closure and post-closure care, in accordance with the following requirements..."

d. A work plan and a proposed time frame for additional GW monitoring well installation, meeting the requirements of 9 VAC20-80-300(A)(3)(a), which were to be submitted to the Department by December 30, 2009, had not been submitted. 9 VAC20-80-300(A)(3)(a)

e. The ASD that the County submitted was denied by the Department. The County was required to submit a work plan to investigate the extent of the release at MW-6 and a proposed time frame for additional GW monitoring well installation by November 30, 2009. This well had not been installed.

   9 VAC20-80-300(A)(5) stated that "As a result of the statistically significant increase specified in 9 VAC20-80-300 B 2 b, C 3 d(2), or C 4 b (3)(b) or the notification required in 9 VAC20-80-300 B 3 g or C 4 e (3), the owner or operator may choose to submit an Alternate Source Demonstration report to the department that demonstrates that a source other than the landfill unit caused the statistical exceedance, or that the exceedance resulted from error in sampling, analysis, or evaluation. A successful demonstration must be made within 90 days of noting a statistically significant increase. The director may approve a longer timeframe for submittal and approval of the Alternate Source Demonstration with appropriate justification. The Alternate Source Demonstration shall be certified by a qualified ground water scientist..."

   9 VAC 20-80-300(B)(3)(g)(2) stated that "Submit an Alternate Source Demonstration as specified in 9 VAC20-80-300 A 5. If a successful demonstration is made, the owner or operator shall continue monitoring in accordance with the assessment monitoring program pursuant to subdivision 3 of this subsection, and may return to detection monitoring only if the Table 5.1 constituents are at or below background as specified in subdivision 3 e of this subsection. Until a successful demonstration is made, the owner or operator shall comply with subdivision 3 g (1) of this subsection including initiating the provisions of 9 VAC20-80-310 A."

f. The County is required to submit GPS under the timeframe of 9 VAC20-80-300(B)(3)(d)(4) to the Department for approval. The GPS was not received by the Department.

   9 VAC20-80-300(B)(3)(d)(4) stated that "Within 180 days, submit proposed ground water protection standards for all constituents detected pursuant to subdivision 3 b of this subsection. The ground water protection standards shall be approved by the director in accordance with subdivision 3 h or i of this subsection and placed in the facility's operating record."

g. The County was required to submit a variance for use of ACLs in accordance with 9 VAC 20-80-300(B)(3)(i), for Department approval; this was not received by November 30, 2009.

   9 VAC20-80-300(B)(3)(i) stated that "The director may establish an alternative ground water protection standard for constituents for which MCLs have not been established by granting a variance based on the petition submitted by the owner or operator in accordance with 9 VAC20-80-760."

23. On April 7, 2010, based on the inspection and follow-up information, DEQ issued NOV No. WS-10-03-005, to Greene County for the violations described in paragraph 22.

24. On May 18, 2010, DEQ staff met with Greene County staff and their contractor to discuss potential remedies to the violations noted in the April 7, 2010 NOV. During the meeting, the County agreed to the following corrective actions:

    a. A GRP with proposed time frames for work to be performed,

    b. Continued monitoring and data collection from GW monitoring wells through August 2010,

    c. Review bids for an active gas ventilation system.

    d. Replacement of downgradient wells MW-3 & MW-4, upgradient well MW-6, and add a new well to address the gap in coverage between MW-5 & MW-6,

    e. Documentation demonstrating the future physical obstacles which may prevent installation of an appropriate replacement well for MW-4,

    f. Because exceedances of organic constituents in MW-6 had not been adequately addressed under the ASD and the timeframes to submit a revised ASD had passed, a work plan for additional GW well installation must be submitted to investigate the extent of the release and to address the exceedance,

    g. Submission of proposed GPS which shall be the Maximum Contaminant Level (MCL) for constituents for which MCLs have been promulgated, any background concentrations for approval by the director, or ACLs, for constituents in which MCLs have not been established, and

    h. Request a variance for use of the ACLs.

    Documentation regarding the above actions was to be submitted to DEQ staff by July 1, 2010. This agreement was memorialized in a June 25, 2010, letter to the County. This submittal was not received by July 1, 2010.

25. The GW monitoring well, MW-7, replacing MW-3 and the new well, MW-8, were installed during July 2010.

26. On July 23, 2010, DEQ staff sent a follow-up letter to the County, requesting submittal of the items agreed upon in the May 18, 2010, meeting. A response was not received from the County.

27. On July 23, 2010, DEQ reviewed the 2009 Annual Groundwater Report and noted the following:

    a. Additional groundwater monitoring wells are needed at the facility, 9 VAC 20-80-300(A)(3)(a);

    b. The amended ASD to address the exceedances in well MW-6 has not been submitted and the County has not moved into the next phase of monitoring, 9 VAC 20-80-300(B)(3)(g)(1) and 20-80-310(A);

    c. The County has not submitted the proposed GPS and variance for use of ACLs

       9 VAC 20-80-300(B)(3)(h) stated that "The owner or operator shall determine a ground water protection standard for all detected Table 5.1 constituents... "

28. On September 22 and December 2, 2010, DEQ staff visited the Facility and confirmed that the active gas remediation system had not been installed as agreed during the May 18, 2010, meeting.

29. On January 5, 2011, DEQ staff performed an inspection of the Facility. Staff made the following observations:

    a. According to monitoring reports submitted by the County's consultant, gas probes GP8, GP9 and GP10 are consistently above the 5% lower explosive limit (LEL), the regulatory threshold for methane at the property boundary. 9 VAC 20-80-280(A)(1) (9 VAC20-81-200)

    b. Three additional GW monitoring wells meeting the requirements of 9 VAC 20-80-300(A)(3)(a) were to be installed, based on the Department's review of the 2008 and 2009 Annual Groundwater Reports. Two of these wells were installed in August 2010. The third well which was not installed was necessary to replace GW monitoring well MW-4. 9 VAC 20-80-300(A)(3)(a); 9 VAC 20-80-300(A)(3)(d); Table 7.2 of 9 VAC 20-80-620(H)

    c. The County did not submit proposed GPS. 9 VAC 20-80-300(B)(3)(d)(4)

    d. The County was required to submit a variance for use of for Department approval, by November 30, 2009. 9 VAC 20-80-300(B)(3)(i)

e. The ASD submitted by the County, dated October 26, 2006, to address statistical exceedances in well MW-6 was denied by the Department on April 17, 2008, as noted under paragraph 11. Additional information to support a successful ASD was not submitted. As the plan submitted on October 26, 2006 was incomplete, the County was required to submit a work plan to investigate the extent of the release at MW-6 by July 1, 2010, as agreed to during the May 18, 2010 meeting, noted under paragraph 24.f. This plan was not received by the Department. 9 VAC 20-80-300(A)(5); 9 VAC 20-80-300(B)(3)(g)(2) (Note: The observed exceedances were based on a previously held supposition by the County that a legitimate GPS had been approved when there is no documentation to confirm this (see paragraph 22.c.). Regardless of the absence of a GPS, the exceedances reported warranted action due to the potential impact to residential drinking water wells located near MW-6.)

f. The Facility has observed statistically significant exceedances of the GPS for tetrachloroethene in MW-6 and has not initiated a Nature and Extent (NES) and Assessment of Corrective Measures (ACM). 9 VAC 20-80-300(B)(3)(g) (1) (Note: Based on a file review performed by staff in 2009, a legitimate GPS was never approved. The County was notified of this in our annual GW report review dated September 15, 2009. However, DEQ staff observed that the data submitted for 2008, 2009, 2010 Annual Groundwater Reports indicate statistically significant increases in tetrachloroethene in MW-6)

30. On February 4, 2011, based on the inspection and follow-up information, DEQ issued NOV No. WS-11-01-VRO-001, to Greene County for the violations described in paragraph C(29).

31. On March 3, 2011, DEQ staff met with County staff and their contractor to discuss potential remedies to the violations noted in the 2011 NOV. The corrective actions agreed upon during the meeting were completion of the following:

a. The blower motor for the landfill gas extraction system has been completely installed and is in operation.

b. Mark the approximate footprint of the proposed building that may interfere with the installation and access to a replacement well for MW-4. Additionally, schedule with DEQ staff a date and time for a site visit to evaluate and confirm acceptable location(s) for this same replacement well.

c. Provide adequate documentation to establish GPS for the site.

d. A variance request and technical documentation for establishing ACLs and the associated $390.00 variance fee.

e. Withdraw or amend the ASD originally submitted to DEQ for statistically significant exceedances of the GPS for tetrachloroethene in MW-6.

f. A proposed location for a replacement well for MW-6 and a timeframe for installing and sampling it.

Documentation regarding the above actions was to be submitted to DEQ staff by March 17, 2011. This agreement was memorialized in a March 4, 2011, letter to the County. During the meeting DEQ staff received copies of letters from the surrounding property owners denying the County access to install additional GW monitoring wells. This included the property owner for the current location of MW-6.

32. On March 15, 2011, DEQ staff received an email from the County's contractor stating that the active gas collection system had been turned on. This acts as confirmation that the county performed the corrective action agreed upon in paragraph 31.a.

33. On March 22, 2011, DEQ staff received ACL and proposed GPS values for the Facility. DEQ accepted these values in a letter dated June 30, 2011. The county also submitted a $390.00 fee for requesting this variance. This effectively resolves the violation noted in paragraphs 19.c, 20.c, 22.f and g, 27.c, 29.c and d, 31.c and d.

34. On March 22, 2011, DEQ staff performed a site visit at the Facility to confirm the location for the installation of the replacement well for MW-4. A location was agreed upon and documented on a site diagram. This acts as confirmation that the county performed the corrective action agreed upon in paragraph 31.b. Additionally, staff also confirmed that the active gas remediation system was installed and operational.

35. On April 18, 2011, DEQ staff received copies of the gas sampling results for April 2011. All methane readings were below 1%. At the date of the sampling event, the gas remediation system had been operating for one month. DEQ also received confirmation that the replacement for MW-4, indentified as MW-9, was installed on April 15, 2011.

36. On May 11, 2011, DEQ staff received copies of the gas sampling results for May 2011. All methane readings were below 1%.

37. On July 29, 2011, DEQ staff reviewed the 2010 Annual Groundwater Report and noted the following:

    a. With the installation of the additional GW monitoring wells at the site, the facility's permit should be amended to reflect the current conditions at the site, in accordance with 9 VAC 20-81-600. This effectively resolves the violations noted in paragraph 19.b, 22.d, 24.d, 27.a, 29.b and 33.b.

    b. The County failed to submit an amended ASD or initiate the required actions.

       9 VAC 20-81-250(A) include general requirements for the groundwater monitoring program.

       9 VAC 20-81-250(B)(3)(f)(a)(ii) states "Submit an Alternate Source

Demonstration as specified in subdivision A 5 of this section. If a successful demonstration is made within 90 days, the owner or operator may continue monitoring in accordance with the assessment monitoring program pursuant to subdivision 3 of this subsection. If the 90-day period passes without demonstration approval, the owner or operator shall comply with the actions under 9 VAC20-81-260 C within the timeframes specified unless the director has granted an extension to those timeframes."

9 VAC 20-81-250(B)(3)(f)(a)(i) states "Undertake characterization and assessment actions required under 9 VAC20-81-260 C 1; or ..."

9 VAC 20-81-260(A) states "Corrective action is required whenever one or more groundwater protection standard is exceeded at statistically significant levels. An owner or operator of a landfill may elect to initiate corrective action at any time; however, prior to such initiation, the appropriate groundwater protection standards for all Table 3.1 constituents shall be established consistent with 9 VAC20-81-250 A 6. At any time during the corrective action process, the owner or operator may elect to pursue, or the director can determine that, interim measures as defined under subsection F of this section are required in accordance with subdivision E 3 of this section."

38. During February 2012, DEQ staff received copies of corrective action cost estimates and financial assurance documentation for the landfill. DEQ reviewed these documents and approved both the cost estimates and the financial assurance mechanism on February 22, 2012.

39. On March 30, 2012, DEQ staff performed an inspection of the Facility and made the following observations, with applicable regulations:

    a. Three additional groundwater monitoring wells meeting the requirements of 9 VAC 20-81-250.A.3. (previously 20-80-300.A.3.) have been installed at the landfill. These wells were installed to replace currents wells and improve the ground water monitoring network for the landfill. DEQ has not received a Notice of Intent to modify the permit or Ground Water Monitoring Plan.

    9 VAC 20-81-600.F.2 states that minor permit modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation.

    9 VAC 20-81-450.B.1 requires any person proposing to modify an existing solid waste management facility (SWMF) or existing permit to file a notice of intent with the DEQ stating the desired permit modification. The notice shall be in letter form and be accompanied by an area map and a site location map.

b. An active gas remediation system meeting the requirements of 9 VAC 20-81-200.B.3. was installed at the landfill on March 15, 2011 and DEQ has not received a Notice of Intent to modify the permit to reflect this change in the Facility's Gas Remediation Plan.

   9 VAC 20-81-600.F.2 states that minor permit modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation.

   9 VAC 20-81-450.B.1 requires any person proposing to modify an existing solid waste management facility (SWMF) or existing permit to file a notice of intent with the DEQ stating the desired permit modification. The notice shall be in letter form and be accompanied by an area map and a site location map.

c. The facility has observed statistically significant exceedances of a ground water protection standard (GPS) for tetrachloroethene in MW-6 and has not initiated a Nature and Extent Study (NES) and Assessment of Corrective Measures (ACM).

   9 VAC 20-80-250.B.3.f. (3)(a)(i) states that if one or more Table 3.1 Column B constituents are detected at statistically significant levels above the groundwater protection standard, the owner or operator shall notify the DEQ within 14 days of such a finding, identifying the Table 3.1 Column B constituents that have exceeded the groundwater protection standard, and undertake characterization and assessment actions required under 9 VAC 20-81-260.C.1. within 90 days of such a finding.

40. On April 12, 2012, based on the inspection and follow-up information, DEQ issued a NOV No. WS-12-04-VRO-001, to Greene County for the violations described in paragraph C(39).

41. On April 15, 2012, DEQ staff received an ACM report for the statistically significant exceedances of the GPS for tetrachloroethene in MW-6. On July 31, 2012, DEQ staff found the report to be technically incomplete and unresponsive to the requirements.

    9 VAC 20-81-260(C) states "Upon notifying the department that one or more of the constituents listed in Table 3.1 Column B has been detected at a statistically significant level exceeding the groundwater protection standards, the owner or operator shall, unless department approval of an Alternate Source Demonstration has been received as noted under 9 VAC20-81-250 B 3 f (3) (a) (ii) or 9 VAC20-81-250 C 3 e (3) (a) (ii)..."

42. On April 24, 2012, DEQ staff received a Notice of Intent to modify its permit with a Gas Remediation Plan (GRP). On July 26, 2012, DEQ staff approved the permit modification and incorporated the revised GRP into the Facility's permit.

43. On April 27, 2012, DEQ received a Notice of Intent to modify its permit with a Groundwater Monitoring Plan (GMP). On July 31, 2012, DEQ issued technical review comments and requested the County submit a revised GMP.

44. On August 2, 2012, based on the March 2012 inspection and follow-up information, DEQ issued to the County NOV No. WS-12-04-VRO-001 for the violations described in paragraph C(39 and 41).

45. On September 21, 2012, DEQ staff performed an inspection of the Facility and made the following observations, with applicable regulations:

    a. The Facility has observed statistically significant exceedances of a ground water protection standard (GPS) for tetrachloroethene in MW-6 and has not initiated a Nature and Extent Study (NES) and Assessment of Corrective Measures (ACM). DEQ received a report, dated April 15, 2012, in response to this requirement. Staff reviewed this report on June 22, 2012 and found it to be technically incomplete and unresponsive to the requirements of 9 VAC 20-81-260(C)

    9 VAC 20-80-250.B.3.f. (3)(a)(i) states that if one or more Table 3.1 Column B constituents are detected at statistically significant levels above the groundwater protection standard, the owner or operator shall notify the DEQ within 14 days of such a finding, identifying the Table 3.1 Column B constituents that have exceeded the groundwater protection standard, and undertake characterization and assessment actions required under 9 VAC 20-81-260.C.1. within 90 days of such a finding.

46. On October 1, 2012, based on the inspection and follow-up information, DEQ issued to the County NOV No. WS-12-09-VRO-001 for the violations described in paragraph C(45).

47. On November 14, 2012, DEQ, the County and their consultant met to discuss the violations. The corrective actions agreed to by the County during the meeting were completion of the following:

    a. Notification of the adjacent landowners regarding the GPS exceedance noted in groundwater well MW-6, as required under 9 VAC 20-81-250(C)(1)(b), by November 30, 2012,

    b. Sample the landowners' wells by December 31, 2012,

    c. Submit a revised GMP by December 31, 2012.

48. On November 19, 2012, the County notified the adjacent landowners and submitted copies of the notification letters to DEQ on December 17, 2012.

49. December 28, 2012, DEQ received copies of the access agreements signed by the landowners granting access to sample their residential supply wells but denying access to install additional wells for characterization.

50. On January 2, 2013, DEQ received a revised GMP, which is currently under review by the Department.

51. On January 11, 2013, DEQ received the analytical results from the sampling event at the residential supply wells.

52. Based on the results of the November 13, 2007, January 26, 2010 and January 5, 2011 inspections, the January 31, 2008, October 23, 2009, May 18, 2010, March 3, 2011 meetings, and all the documentation submitted, the Board concludes that Greene County has violated 9 VAC 20-70-10, 9 VAC 20-80-280, 9 VAC 20-80-500, 9 VAC 20-80-250(F)(1)(a), 9 VAC 20-80-280(A)(1),9 VAC 20-80-300(A)(3), 9 VAC 20-80-300(A)(3)(a), 9 VAC 20-80-300(A)(5), 9 VAC 20-80-300(B)(3)(d), 9 VAC 20-80-300(B)(3)(g)(2), 9 VAC 20-80-300(B)(3)(h), 9 VAC 20-80-300(B)(3)(i), 9 VAC 20-80-300(B)(3)(g), as described in paragraphs C(6) through C(47), above.

53. Greene County has submitted documentation that verifies, and DEQ staff inspected the Facility on March 3, 2011 and verified that all of the violations described in paragraphs C(6) through C(46), above, excluding items C(22)(a) and (d), have been corrected.

54. Financial assurance documents were submitted and the Facility was returned to compliance for the violations noted in paragraph C(22)(a) on April 9, 2013.

55. In order for Greene County to complete its return to compliance, DEQ staff and representatives of Greene County have agreed to the civil penalty in Section D and the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 10.1-1455, the Board orders Greene County, and Greene County agrees to:

1. Perform the actions described in Appendix A of this Order; and

2. Pay a civil charge of $11,250.00 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

Greene County shall include its Federal Employer Identification Number (FEIN) [(54-6004813)] 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 Greene County for good cause shown by Greene County, 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, Greene County admits the jurisdictional allegations, findings of fact, and conclusions of law contained herein.

4. Greene County 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. Greene County declares it has received fair and due process under the Administrative Process Act and the Virginia Waste Management Act 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 Greene County 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. Greene County 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. Greene County shall demonstrate that

such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Greene County 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 parties intend 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 and any 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 Greene County. Nevertheless, Greene County 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. The Director or his designee terminates the Order after Greene County has completed all of the requirements of the Order;

b. Greene County 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 Greene County.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Greene County 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 Greene County 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 Greene County 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 Greene County to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Greene County.

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.

By its signature below, Greene County voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 5th day of September, 2013.

Amy Thatcher Owens, Regional Director
Department of Environmental Quality

Greene County voluntarily agrees to the issuance of this Order.

Date: 7/23/13 By: _____, Chairman, Greene County Board of Supervisors
(Person) (Title)
Greene County

Commonwealth of Virginia
~~City~~/County of Greene

The foregoing document was signed and acknowledged before me this 23rd day of July, 2013, by James F. Frydl who is Chairman, Board of Supervisors of Greene County on behalf of the County.

Kimberly L. Morris
Notary Public

341196
Registration No.

My commission expires: 5-31-16

Notary seal:

KIMBERLY L. MORRIS
NOTARY PUBLIC
REG # 341196
MY COMMISSION EXPIRES
5/31/2016
COMMONWEALTH OF VIRGINIA

APPENDIX A
SCHEDULE OF COMPLIANCE

1. **Groundwater**

   1. Greene County shall, pursuant to 9 VAC 20-81-250(B)(3), perform groundwater monitoring under the Assessment Monitoring Program.

   2. Greene County shall submit any revisions necessary to the GMP upon the Department's technical review of the revised document.

   3. By August 1, 2013, in lieu of further pursuing of NES and ACM towards Corrective Action, Greene County shall propose Interim Measures, as allowed under 9 VAC 20-81-260(F), for long term monitoring of the landowners' residential supply wells.

   4. Greene County shall add the residential supply wells to its monitoring network with a proposed sampling frequency described within the GMP.

   5. Greene County shall respond to any notices of deficiency with respect to its corrective action program in accordance with the notice and shall comply with the corrective action provisions described in the permit, as amended.

2. **Contact**

   Unless otherwise specified in this Order, Greene County shall submit all requirements of Appendix A of this Order to:

   Karen Hensley, Enforcement Specialist
   VA DEQ –Valley Regional Office
   PO Box 3000
   Harrisonburg, VA 22801
   Office: 540-574-7821 Fax: 540-574-7878
   Email: karen.hensley@deq.virginia.gov