



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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Douglas W. Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

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**VIRGINIA WASTE MANAGEMENT BOARD  
ENFORCEMENT ACTION — AMENDED ORDER BY CONSENT  
ISSUED TO  
CHEMETRICS, INC.  
FOR  
CHEMETRICS  
EPA ID # VAR000010165**

### **Section A: Purpose**

This is an Amendment to the Consent Order issued under the authority of Va. Code § 10.1-1455, between the Virginia Waste Management Board, and Chemetrics, Inc. on October 5, 2006, regarding the Chemetrics, Inc. facility, for the purpose of revising certain provisions of that Consent Order.

### **Section B: Definitions**

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below. All other definitions remain unaltered, unmodified, and are not amended from the original October 5, 2006 Consent Order issued to Chemetrics, Inc.:

1. "Main Building" means the northernmost improvement on the property, occupying approximately 12,000 square feet of mixed manufacturing and administrative offices.
2. "Sub-slab piping" means the piping within the Main Building and the Warehouse Building as identified for decontamination in the approved sub-slab decontamination closure plan and connected industrial wastewater conveyance piping upstream from septic tanks ST-1, ST-2, and ST-3 outside of such buildings.
3. "Warehouse Building" means the southernmost improvement on the property, occupying approximately 7200 square feet of material storage and manufacturing.
4. "Wastewater treatment train" means septic tanks ST-1, ST-2 and ST-3 and

all down stream piping, chambers and tanks and ending with the infiltration zone boxes at the 1979, 1988 and 2002 drainfields, respectively. The wastewater treatment train shall also include out of use septic tank ST-1A and any connected piping not otherwise a part of the sub-slab piping.

5. "1979 drainfield" means the original drainfield system installed at the Facility in 1979 downstream of the infiltration zone box located at such drainfield.
6. "1988 drainfield" means the drainfield system installed at the Facility in 1988 downstream of the infiltration zone box located at such drainfield, including the relocation of drainfield material in the construction of the Warehouse Building to the perimeter slopes of such building.
7. "2002 drainfield" means the drainfield system installed at the Facility in 2002 downstream of the infiltration zone box located at such drainfield.

#### **Section C: Basis for Amendment**

1. Chemetrics, Inc. was referred to enforcement in October 2005 after a DEQ inspection found violations of the Virginia Waste Management Act and applicable regulations. These violations stemmed from company practices in which Facility personnel disposed of excess testing solutions into laboratory drains. These drains led into the wastewater collection system to septic tanks and ultimately to drainfields. These practices affected the original drainfield constructed in 1979 ("1979 drainfield"); a drainfield installed in 1988 ("1988 drainfield"); and the most recent drainfield installed in 2002 ("2002 drainfield").
2. In order to resolve these violations and address the resulting contamination, DEQ and Chemetrics, Inc. entered into a Consent Order on October 5, 2006 ("2006 Order"). Appendix A of the 2006 Order set forth a schedule for RCRA closure.
3. As required by the 2006 Order, Chemetrics, Inc. conducted a site characterization, whereby it found levels of contaminants in the 2002 drainfield consistent with background levels. DEQ advised Chemetrics, Inc. via letter dated October 19, 2007 that the 2002 drainfield could continue operations and did not require further RCRA closure.
4. Chemetrics, Inc. submitted a proposed plan for the closure by removal or decontamination of the sub-slab piping beneath the Main Building and the Warehouse Building at the Facility dated May 21, 2010. DEQ provided a Notice of Deficiency letter dated August 17, 2010 requesting a revised plan within forty-five (45) days of receipt of the Notice of Deficiency. DEQ granted an extension request to November 29, 2010 to allow DEQ

and Chemetrics, Inc. to meet to discuss this Amendment to Consent Order and the Notice of Deficiency.

5. The 2006 Order acknowledged the distinct drainfields and allowed for the assessment of each separately, however, it did not further parcel the wastewater treatment system in order to insure each unit of the system was properly decontaminated. To that end, DEQ and Chemetrics, Inc. have agreed that an Amended Order is appropriate to allow for a more efficient and thorough way of addressing the remaining contamination at the Facility.
6. Additionally, at the time of the entry of the 2006 Order, the contractor who built the Warehouse Building over the 1988 drainfield advised Chemetrics in 2006 that the entire foot print of the building was undercut by two feet but that such cutting did not reach the drainfield. The two feet of cut soil was used to form the sloping of the perimeter of the building. Chemetrics has since found a letter from the contractor from December of 2003 (contemporaneous with the Warehouse Building construction) that provides that "the entire foot print had to be undercut four feet to remove the existing drainfield."
7. On November 29, 2010, Chemetrics submitted a revised closure plan and associated schedule for closure by removal or decontamination of the sub-slab piping beneath the Main Building and the Warehouse.
8. In order for Chemetrics, Inc. to continue its return to compliance, DEQ staff and representatives of Chemetrics have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Amended Order.

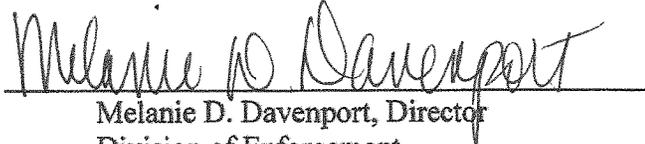
#### **Section D: Agreement and Order**

Accordingly, by virtue of the authority granted it in Va. Code § 10.14455, the Board orders Chemetrics, Inc., and Chemetrics, Inc. voluntarily agrees to:

1. Perform the actions described in Appendix A of this Amended Order which only supersedes and cancels Appendix A of the 2006 Order. Both the Board and Chemetrics, Inc. understand and agree that this Amendment does not alter, modify, or amend any other provision of the 2006 Order except for paragraph 6 of Section C of the 2006 Order is amended to reflect the information contained in paragraph 6 of this Order and Section B is amended to incorporate the definitions in Section B above. The unmodified provisions of the Order remain in effect by their own terms.

By its signature below, Chemetrics, Inc. voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 28<sup>th</sup> day of February, 2011.



Melanie D. Davenport, Director  
Division of Enforcement  
Department of Environmental Quality

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Consent Order Amendment

Chemetrics

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Chemetrics, Inc. voluntarily agrees to the issuance of this Order.

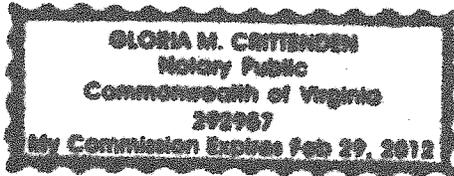
Date: JAN. 14, 2011 By: Bruce H. Ramey, PRESIDENT  
(Person) (Title)  
Chemetrics, Inc.

Commonwealth of Virginia .  
City/County of Fauquier

The foregoing document was signed and acknowledged before me this 14<sup>th</sup> day of January, 2011, by Bruce H. Ramey who is President of Chemetrics, Inc., on behalf of the corporation.

Gloria M. Crittenden  
Notary Public  
292957  
Registration No.

My commission expires: 2/29/12



Notary seal:

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**APPENDIX A  
SCHEDULE OF COMPLIANCE**

Chemetrics, Inc. ("Chemetrics") shall:

- 1) Regarding the revised closure plan and associated schedule for closure by removal or decontamination of the sub-slab piping beneath the Main Building and the Warehouse Building submitted to DEQ on November 29, 2010.
  - a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
  - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.
  - c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
  - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.
  - e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
  
- 2) **Within 60 days** from DEQ's approval of the revised closure plan and associated schedule for closure by removal or decontamination of the sub-slab piping beneath the Main Building and the Warehouse Building **but no later than October 1, 2011**, submit for DEQ review and approval a complete and approvable closure plan and associated schedule for closure by removal or decontamination of the wastewater treatment train, not including associated drainfields. The plan shall be developed in accordance with any applicable VHWMR and any associated guidance (including Risk Based Closure - (REAMS) Risk Exposure and Analysis Modeling System dated November 1, 1994) and using for reference DEQ's "Draft Guidance Manual for Closure Plans and Post-closure Plans for Hazardous Waste Management Facilities" (dated September 28, 2001).
  - a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
  - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.
  - c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
  - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.

- e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
- 3) **Within 60 days** from DEQ's approval of the closure plan and associated schedule for closure by removal or decontamination of the wastewater treatment train **but no later than November 1, 2011**, submit to DEQ for DEQ review and approval a complete and approvable closure plan and associated schedule for closure by removal or decontamination of the 1979 drainfield. The plan shall be developed in accordance with any applicable VHWMR and any associated guidance (including Risk Based Closure - (REAMS) Risk Exposure and Analysis Modeling System dated November 1, 1994) and using for reference DEQ's "Draft Guidance Manual for Closure Plans and Post-closure Plans for Hazardous Waste Management Facilities" (dated September 28, 2001). This closure plan must address groundwater closure unless Chemetrics submits a groundwater closure plan for the facility pursuant to Item #5.
    - a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
    - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.
    - c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
    - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.
    - e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
  - 4) **Within 60 days** from DEQ's approval of the closure plan and associated schedule for closure by removal or decontamination of the 1979 drainfield **but no later than December 1, 2011** for DEQ review and approval a complete and approvable closure plan and associated schedule for closure by removal or decontamination of the 1988 drainfield. The plan shall be developed in accordance with any applicable VHWMR and any associated guidance (including Risk Based Closure - (REAMS) Risk Exposure and Analysis Modeling System dated November 1, 1994) and using for reference DEQ's "Draft Guidance Manual for Closure Plans and Post-closure Plans for Hazardous Waste Management Facilities" (dated September 28, 2001). This closure plan must address groundwater closure unless Chemetrics submits a groundwater closure plan for the facility pursuant to Item #5. This closure plan should also include a closure cost-estimate.
    - a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
    - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.

- c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
  - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.
  - e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
- 5) Unless a groundwater closure plan was provided pursuant to Items #3 and #4, **within 60 days** from DEQ's notification that closure of the 1979 and 1988 drainfields under Items #3 and #4, respectively, is complete, submit for DEQ review and approval, a complete and approvable groundwater closure plan(s) for groundwater closure at each drainfield and associated schedule. Any groundwater plan submitted under Items #3, #4 or #5 shall include (but not limited to) the following: monitoring requirements (i.e. upgradient well, downgradient wells), well location, installation, and construction, list of constituents, sampling schedule, sampling & analysis procedures, elevation of groundwater surface, statistical procedures, and data evaluation, reporting & record keeping. The plan shall be developed in accordance with any applicable VHWMR and any associated guidance (including Risk Based Closure - (REAMS) Risk Exposure and Analysis Modeling System dated November 1, 1994) and using for reference DEQ's "Draft Guidance Manual for Closure Plans and Post-closure Plans for Hazardous Waste Management Facilities" (dated September 28, 2001).
- a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
  - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.
  - c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
  - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.
  - e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
- 6) Chemetrics shall include in the respective closure plans for the 1979 and 1988 drainfields for DEQ review and approval, a cost estimate for closure of each respective drainfield. The cost estimate shall incorporate the cost associated with groundwater monitoring if included within the plans developed under Items #3 and #4. If the groundwater monitoring is not included, the costs estimate shall be updated upon approval of the groundwater closure plan as provided in Item #5. Chemetrics shall modify the cost estimates for closure amount of financial assurance as necessary in response to any modifications of the closure plans required by this Amended Order or as required by the VHWMR.

- 7) **Within 60 days** of approval of each closure plan and associated cost estimate, Chemetrics shall provide financial assurance in a form or mechanism approved by DEQ in the amount of the cost-estimate. Such mechanism shall be a mechanism allowed under the VHWMR. Chemetrics shall make any changes or alterations or provide for additional financial assurance if required by this Amended Order or by the VHWMR.
  
- 8) **Within 60 days** of Chemetrics notification to DEQ that closure by decontamination or removal pursuant to Item #3, Item #4 or Item #5 is not achieved, Chemetrics shall prepare and submit an approvable contingent closure plan and post-closure care plan for closure in place at the facility. The plan shall be developed in accordance with any applicable VHWMR and any associated guidance (including Risk Based Closure - (REAMS) Risk Exposure and Analysis Modeling System dated November 1, 1994) and using for reference DEQ's "Draft Guidance Manual for Closure Plans and Post-closure Plans for Hazardous Waste Management Facilities" (dated September 28, 2001).
  - a) Chemetrics shall respond to any deficiencies or changes requested by DEQ to the plan within 45 days.
  - b) Upon approval by DEQ, Chemetrics shall implement and follow the plan at the facility.
  - c) Chemetrics shall receive DEQ approval prior to changing, altering, or amending the plan.
  - d) Such closure shall not be deemed complete until Chemetrics has received notification from DEQ that closure is complete.
  - e) The plan and schedule shall be incorporated and enforceable under this Amended Order.
  
- 9) If Chemetrics is required to submit a contingent closure plan and post-closure care plan in accordance with Item #8, then Chemetrics shall also submit a post-closure cost-estimate for DEQ review and approval and include such cost-estimate in the plan. Within 60 days of the approval of the cost estimate, Chemetrics shall provide a financial assurance in a form or mechanism approved by DEQ in the amount of the cost-estimate. Such mechanism shall be a mechanism allowed under the VHWMR. Chemetrics shall modify the cost estimates for closure amount of financial assurance as necessary in response to any modifications of the closure plans required by this Amended Order or as required by the VHWMR. Chemetrics shall make any changes or alterations or provide for additional financial assurance if required by this Amended Order or by the VHWMR.
  
- 10) If "clean closure" for soils and/or groundwater is not achieved in accordance with the approved closure plans, and upon notification from DEQ of this determination, Chemetrics shall prepare and submit within 180 days a post-closure permit application and required permit application fees for applicable post-closure care,

groundwater monitoring, and corrective action. The permit shall be developed in accordance with 40 CFR 270 Subpart B and 9 VAC 20-60-1285 of the VHWMR.

- 11) Unless otherwise specified in this Order, Chemetrics shall submit all requirements of Appendix A of this Order to:

Justin L. Williams  
Waste Enforcement Manager  
VA DEQ  
629 E. Main St.  
Richmond, VA 23219