



VIRGINIA DEPARTMENT OF ENVIRONMENT QUALITY

STATEMENT OF BASIS

CHEMetrics, Inc.
4295 Catlett Rd

Midland, VA 22728
EPA ID No. VAR000010165

May 25, 2016

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I. INTRODUCTION

The Virginia Department of Environmental Quality (VDEQ) has prepared this Statement of Basis (SB) for CHEMetrics, Inc. facility located at 4295 Catlett Rd, Midland, VA 22728 (hereinafter referred to as the Facility).

The Facility is subject to the Corrective Action (CA) program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k (Corrective Action Program). The Corrective Action program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their site. Information on the Corrective Action program can be found by navigating <https://www3.epa.gov/reg3wcmd/ca/correctiveaction.htm>.

VDEQ has prepared this SB in cooperation with the United States Environmental Protection Agency (EPA) and is providing the opportunity for public comment and review on its proposed decision.

II. FACILITY BACKGROUND

CHEMetrics, Inc. (CHEMetrics) operates a research, product development, and manufacturing facility for the development and marketing of water and wastewater analysis kits for various industrial and environmental monitoring applications. The facility, located in Midland, Virginia, has been in operation since 1979 and covers approximately 16 acres. The Facility consists of a main building with offices (Main Building), and a second building that serves as a combined warehouse/laboratory facility (Warehouse Building).

The EPA initially issued identification number EPA ID: VAR000010165 in February 10, 1998. Historically, the Facility has been registered as a small quantity generator (SQG) but has episodically been registered as a large quantity generator (LQG) as part of the waste disposal activities associated with closure activities.

III. SUMMARY OF ENVIRONMENTAL HISTORY

In a Notice of Violation (NOV) dated October 13, 2005, the VDEQ alleged that the Facility operator was improperly managing hazardous waste due to the disposal of small quantities of residual testing solutions in the Facility's sanitary wastewater system (VDEQ, 2005). At the time the facility's wastewater was managed via an on-site gravity and pump-operated wastewater treatment system consisting of collection boxes (septic tanks), pump chambers, and an aerobic treatment vessel, which discharged to an evaporation basin and drainfield that were constructed in 2002. The facility had two older drainfields, constructed in 1979 and 1988, which were no longer in use. According to CHEMetrics, the 2002 drainfield has

been, and continues to be, operated in accordance with a septic permit issued by Fauquier County.

The testing solutions allegedly released into the sanitary waste system reportedly contain trace concentrations of cyanide, phenol, mercury, and other unknown chemicals. In response to the NOV, CHEMetrics agreed via an Order by Consent between CHEMetrics and the VDEQ (executed October 5, 2006) to undertake investigative actions to evaluate the nature and extent of hazardous waste impacts to subsurface soils and shallow groundwater associated with the alleged hazardous waste disposal activities, and to close the wastewater system components and cleanup subsurface soils [contaminated media, (VDEQ, 2006)] in accordance with the applicable sections of the VHWMR. According to CHEMetrics, alterations to infrastructure and operations have been made since the issuance of the NOV to prevent future incidents such as those alleged in the NOV.

In accordance with the Schedule of Compliance in Appendix A of the Order by Consent, CHEMetrics submitted a Site Characterization Plan (SCP) to the VDEQ, which was later updated in December 2006 (ECS, 2006). Following VDEQ's January 25, 2007, approval of the SCP, site investigations were initiated in March 2007. The results of the site investigation activities were submitted to the VDEQ in a Site Characterization Report (SCR) on May 21, 2007 (ECS, 2007). The VDEQ responded to the SCR submittal in a letter dated October 19, 2007 (VDEQ, 2007). The SCR response letter recommended that additional soil sampling activities be undertaken to fully characterize the extent of subsurface impacts associated with hazardous waste constituents of concern (COC) in the vicinities of the former drainfields, and that additional monitoring wells be installed to fully evaluate the conditions in the uppermost aquifer beneath the Facility. Subsequently, CHEMetrics completed additional sampling and analysis activities in November and December 2007, the results of which were compiled with previous analytical results and submitted to the VDEQ in a SCR Addendum dated February 20, 2008 (Golder, 2008a).

In May 2008 based upon the results of the SCR and SCR Addendum, CHEMetrics submitted a Hazardous Waste Management Unit Closure Plan (Closure Plan) and a Groundwater Monitoring Plan for closure of the HWMUs at the Facility (Golder, 2008b). The Closure Plan identified a proposed COC list and provided procedures for closing the HWMUs. On March 26, 2009, CHEMetrics submitted a request for concurrence to the VDEQ to provide for partial closure of the facility's HWMUs. Specifically, CHEMetrics requested concurrence from the VDEQ that the subslab and in-wall piping units did not require decontamination, since by design these pipes convey wastewater from locations within the two site buildings to the septic tanks.

In response to the March 26, 2009, letter, a meeting was held with the VDEQ on November 16, 2009, to discuss the pending concurrence request, Closure Plan, schedule for closure, groundwater monitoring activities, and the proposed COC list in the Closure Plan. Based on the meeting discussions, it was decided that the pipes would be decontaminated and CHEMetrics prepared and submitted a Constituent of Concern Demonstration Report (Golder, 2010) to the VDEQ on March 22, 2010. The Constituent of Concern Demonstration Report was based on the known hazardous waste constituents associated with the site operations, and a copy of the listing is presented in Appendix B. With approval of the COC list by VDEQ on April 28,

2010 (VDEQ, 2010), CHEMetrics initiated preparation of closure plans for portions of the wastewater collection, conveyance, and disposal system at the Facility, summarized as follows:

Summary of Site Characterization Activities, Closure Plans, and Reports to Date

Wastewater System Subdivision	Document; (with final Addendum / Revision, as applicable)	VDEQ Approval Date	Closure Report (with final Addendum / Revision, as applicable)	VDEQ Closure Report Approval Date
Site-Wide Investigation Plan	December 8, 2006, <i>Revised Site Characterization Plan</i>	January 25, 2007	Not Applicable	Not Applicable
Site-Wide Investigation Report	May 21, 2007, <i>Site Characterization Report</i>	October 19, 2007 (VDEQ requested additional investigations)	Not Applicable	Not Applicable
Site-Wide Investigation Report	February 20, 2008, <i>Site Characterization Addendum Report</i>	April 2008 Transition Meeting at VDEQ Central Office	Not Applicable	Not Applicable
Site-Wide COC List	March 23, 2010, <i>Constituent of Concern Report</i>	April 28, 2010	Not Applicable	Not Applicable
Sub-slab piping (and associated soils)	May 19, 2010, <i>Subslab Piping Decontamination Plan</i> (Golder, 2010); [January 10, 2011, Revision (Golder, 2011)]	March 1, 2011	June 14, 2012 <i>Subslab Piping Closure Report</i> (Golder, 2012); [October 26, 2012, Addendum (Golder, 2012)]	November 26, 2012
Wastewater Treatment Train (and associated soils)	May 16, 2011, <i>Wastewater Treatment Train Closure Plan</i>	November 16 2011	November 6, 2013, <i>Wastewater Treatment Train Closure Report</i> (Golder 2013); (March 2014 revised pages)	April 3, 2014
1979 Drainfield (and associated soils)	October 31, 2011, 1979 Drainfield Closure Plan	June 6, 2013	January 10, 2014, 1979 Drainfield Closure Report (Golder, 2014a)	June 20, 2014
1988 Drainfield (and associated soils)	January 3, 2012, 1988 Drainfield Closure Plan (Golder, 2012); [Revision 4]	June 6, 2013	January 31, 2014, 1988 Drainfield Closure Report (Golder, 2014b)	June 20, 2014

1979 and 1988 Drainfield Groundwater Version 1.3	July 7, 2015	August 27, 2015	September 14, 2015	November 12, 2015
Compilation of Solid Waste Management Unit And Area of Concern Information	January 26, 2016	Not Applicable	Not Applicable	Not Applicable

In February 2011, VDEQ amended the Order of Consent to reflect changes to the schedule of compliance. The Facility was allowed to conduct closure for groundwater independently from the soil closure. Upon successful determination of clean closure for groundwater, the Department acknowledged that the Facility met all requirements of the Order on November 12, 2015.

Since the Facility is subject to site-wide corrective action, the Facility evaluated potential areas of concern (AOCs) and additional solid waste management units (SWMUs) that have potential for release. VDEQ visited the site with the Facility on November 16, 2015 to discuss the identification of AOCs and SWMUs and performed a site reconnaissance with the Facility and its representative. On January 26, 2016, the Facility submitted the Report, “Compilation of Solid Waste Management Unit and Area of Concern Information.” The Report identified a total of 14 SWMUs and AOCs and provided a detailed history of each SWMU or AOC’s components, usage history, specifications, and any potential waste or release mechanisms. The Report concluded that with the final clean closure of the SWMUs pursuant to the Amended Order by Consent, no further investigation or remediation of the SWMUs and AOCs at the Facility is necessary and no further action was recommended.

IV. PROPOSED DECISION

VDEQ has reviewed all available Facility data and has determined that there are no unaddressed releases of hazardous waste or hazardous constituents from the Facility. Based on its review, VDEQ’s proposed decision is that no additional characterization or remediation is necessary. VDEQ’s proposed decision represents “Corrective Action Complete without Controls” as described in EPA’s “Final Guidance on Completion of Corrective Action Activities at RCRA Facilities” Guidance found in the Federal Register / Vol. 68, No. 37 / Tuesday, February 25, 2003 / Notices [FRL – 7454-7] pages 8757 to 8764. VDEQ has determined that its proposed decision for the Facility is protective of human health and the environment and that no further corrective action or controls are necessary at this time.

This SB summarizes information that can be found in greater detail in the documents and reports reviewed by VDEQ and EPA, which can be found in the Administrative Record (AR).

V. PUBLIC PARTICIPATION

Interested persons are encouraged to review the AR and are invited to comment on VDEQ's proposed decision. The AR contains all the information considered by VDEQ for its proposed remedy for the Facility. The public comment period will last thirty (30) calendar days from the date that the notice is published in a local newspaper. Comments may be submitted by mail, e-mail, or phone to Mrs. Tara Mason at the address listed below. VDEQ will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Ms. Tara Mason at the address listed below.

Virginia Department of Environmental Quality
PO Box 1105
Richmond, VA 23218
Contact: Tara D. Mason
Phone: 804-698-4218
Email: tara.mason@deq.virginia.gov

VDEQ will address all significant comments received during the public comment period. If VDEQ determines that new information or public comments warrant a modification to the proposed decision, VDEQ will modify the proposed decision or select other alternatives based on such new information and/or public comments. VDEQ will approve its final decision in a document entitled the Final Decision and Response to Comments (FDRTC). Any person who comments on the decision will automatically receive a copy of the FDRTC. Any other person wishing to receive a copy of the FDRTC may obtain one by contacting Mrs. Tara Mason at the address listed above.

CHEMetrics, Inc.

Midland, VA
EPA ID No. **VAR000010165**

ADMINISTRATIVE RECORD

Index of Documents for Statement of Basis

This index includes documents that the Virginia Department of Environmental Quality (VDEQ) relied upon to develop and propose the final remedy selection determination described in the Statement of Basis. These documents were prepared for the CHEMetrics, Inc. facility and are listed chronologically by document date.

	Title	Date
1.	Site-Wide Investigation Plan	December 8, 2006, <i>Revised Site Characterization Plan</i>
2.	Site-Wide Investigation Report	May 21, 2007, <i>Site Characterization Report</i>
3.	Site-Wide Investigation Report	February 20, 2008, <i>Site Characterization Addendum Report</i>
4.	Site-Wide COC List	March 22, 2010, <i>Constituent of Concern Report</i>
5.	VDEQ Approval of COC Demonstration Report	April 28, 2010
6.	Sub-slab piping (and associated soils)	May 19, 2010, <i>Subslab Piping Decontamination Plan</i> (Golder, 2010); [January 10, 2011, Revision (Golder, 2011)]
7.	Virginia Waste Management Board Enforcement Action -Amended Order by Consent	February 28, 2011
8.	VDEQ Approval of Sub-slab piping Closure Plan	March 1, 2011
9.	Wastewater Treatment Train (and associated soils)	May 16, 2011, <i>Wastewater Treatment Train Closure Plan</i>
10.	Subslab Piping Closure Plan Update	June 6, 2011
11.	Subslab Piping Closure Plan Update, Decontamination Procedure Change Approval	June 21, 2011
12.	<i>Subslab Piping Closure Decontamination Procedure Change Notification</i>	October 14, 2011
13.	Subslab Piping Closure Decontamination Procedure Change Notification – Approval	October 28, 2011

	Title	Date
14.	1979 Drainfield (and associated soils)	October 31, 2011, 1979 Drainfield Closure Plan
15.	1988 Drainfield (and associated soils)	January 3, 2012, 1988 Drainfield Closure Plan (Golder, 2012); [Revision 4]
16.	Response to Comments 1979 Drainfield Closure Plan	April 15, 2012
17.	Response to Comments 1988 Drainfield Closure Plan	June 13, 2012
18.	Subslab Piping Closure Report and Addendum	June 14, 2012 & October 26, 2012
19.	Subslab Piping Closure Report, June 14, 2012 and Addendum October 26, 2012 – Clean Closure Approval	November 26, 2012
20.	VDEQ Approval of 1970 Drainfield Closure Plan and 1988 Drainfield Closure Plan	June 6, 2013
21.	Wastewater Treatment Train Closure Report and Response to Comments, and Addendum	November 6, 2013, February 27, 2014 , March 14, 2014
22.	1979 Drainfield Closure Report	January 10, 2014
23.	1988 Drainfield Closure Report	January 31, 2014
24.	Wastewater Treatment Train Closure Report, November 6, 2013 with Revised pages dated February 2015 and dated March 2014 – Clean Closure Approval	April 3, 2014
25.	Response to April 23, 2014 Technical Review Memo for 1979 Drainfield Closure Report and 1988 Drainfield Closure Report	May 12, 2014
26.	1979 and 1988 Drainfield Closure Report – Clean Closure Approval	June 20, 2014
27.	1979 and 1988 Drainfield Groundwater Version 1.3	July 7, 2015
28.	1979 and 1988 Drainfields Groundwater Closure Plan Version 1.3 – Approval	August 27, 2015
29.	1979 AND 1988 Drainfields Groundwater Closure Report	September 14, 2015
30.	VDEQ Approval of 1979 and 1988 Groundwater Closure Report	November 12, 2015
31.	Compilation of Solid Waste Management Unit And Area of Concern Information	January 26, 2016