

**ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE**

and

**DOMINION ENERGY TRANSMISSION, INC.
SUPPLY HEADER PROJECT**

**Supplemental Filing
August 25, 2017**

APPENDIX B

Updated Contaminated Media Plan



August 23, 2017

BY OVERNIGHT (OR EXPRESS) MAIL

Bettina Sullivan, Manager
Environmental Impact Review and Long Range Priorities Program
Virginia Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia

**RE: Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline
Updated Contaminated Media**

Dear Ms. Sullivan:

Please reference our previous correspondence regarding the Atlantic Coast Pipeline (ACP). Atlantic Coast Pipeline, LLC (Atlantic) – a company formed by four major energy companies – Dominion Energy, Inc.; Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas – proposes to construct and operate approximately 600 miles of natural gas transmission pipelines and associated aboveground facilities in West Virginia, Virginia, and North Carolina. This Project, referred to as the ACP, will deliver up to 1.5 million dekatherms per day of natural gas from supply areas in the Appalachian region to demand areas in Virginia and North Carolina. Atlantic has contracted with Dominion Energy Transmission, Inc., a subsidiary of Dominion Energy, Inc., to construct and operate the ACP on behalf of Atlantic.

In a letter to the Federal Energy Regulatory Commission (FERC) dated April 6, 2017, the Virginia Department of Environmental Quality (VDEQ) commented on Atlantic's proposed *Contaminated Media Plan* for the ACP, which identifies procedures to be implemented in the event that contaminated soil or groundwater are encountered during construction of the pipeline. The VDEQ comments addressed various aspects of the plan, including training requirements, management and testing of potentially contaminated media, and site evacuation and response in the event of a health or safety hazard. Atlantic has updated its *Contaminated Media Plan* in response to these comments.

The VDEQ additionally commented that Atlantic should develop a waste and debris management plan for using excess material and debris in accordance with applicable regulations. Atlantic will prepare a separate standalone plan to address this comment. The plan will be provided to VDEQ prior to construction.

Bettina Sullivan
August 23, 2017
Page 2 of 2

Atlantic and Dominion Energy would appreciate any comments you may have on the updated *Contaminated Media Plan*. Please contact Mr. Richard B. Gangle at (804) 273- 2814 or richard.b.gangle@dom.com with questions or concerns. Please direct written responses to:

Richard B. Gangle
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Sincerely,

A handwritten signature in blue ink that reads "Robert M. Bisha". The signature is written in a cursive style.

Robert M. Bisha
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion Energy)

Enclosure: Updated Contaminated Media Plan



ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE
Docket Nos. CP15-554-000
CP15-554-001

and



DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT
Docket No. CP15-555-000

Contaminated Media Plan

Updated, Rev. 2

Prepared by



August 16, 2017

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LIST OF ACRONYMS AND ABBREVIATIONS

ACP	Atlantic Coast Pipeline
ACRES	Assessment, Cleanup and Redevelopment Exchange System
Atlantic	Atlantic Coast Pipeline, LLC
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
DETI	Dominion Energy Transmission, Inc.
EI	Environmental Inspector
EPA	U.S. Environmental Protection Agency's
LUST	Leaking Underground Storage Tank
Pivotal	Pivotal Propane of Virginia, Inc.
SHP	Supply Header Project
Steuart	Steuart Investment Company
VDEQ	Virginia Department of Environmental Quality
VRP	Voluntary Remediation Program

1.0 INTRODUCTION

Atlantic Coast Pipeline, LLC (Atlantic) – a company formed by four major energy companies – Dominion Energy, Inc. (Dominion Energy); Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas – proposes to construct and operate approximately 600 miles of natural gas transmission pipelines and associated aboveground facilities in West Virginia, Virginia, and North Carolina. This Project, referred to as the Atlantic Coast Pipeline (ACP), will deliver up to 1.5 million dekatherms per day of natural gas from supply areas in the Appalachian region to demand areas in Virginia and North Carolina. Atlantic has contracted with Dominion Energy Transmission, Inc. (DETI), a subsidiary of Dominion Energy, to construct and operate the ACP on behalf of Atlantic.

In conjunction with the ACP, DETI proposes to construct and operate approximately 37.5 miles of pipeline loop and modify existing compression facilities in Pennsylvania and West Virginia. This Project, referred to as the Supply Header Project (SHP), will enable Dominion Energy to provide firm transportation service to various customers, including Atlantic.

2.0 BACKGROUND

Atlantic and DETI searched Federal and State/Commonwealth databases and consulted with agencies to identify contaminated sites in the vicinity of the proposed ACP and SHP facilities. The U.S. Environmental Protection Agency's (EPA's) Facility Registry System map service was used to identify sites listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and the Assessment, Cleanup and Redevelopment Exchange System (ACRES) within 1 mile of the proposed facilities (EPA, 2017).¹ In addition, various lists and databases maintained by State/Commonwealth agencies were reviewed to identify known sites, such as state-listed brownfield sites, along or near the proposed facilities. These lists and databases include:

- a list of municipal waste landfills and resource recovery facilities and a database of environmental cleanup and other hazardous sites in Pennsylvania, maintained by the Pennsylvania Department of Environmental Protection;
- a list of municipal solid waste landfills and a database of leaking underground storage tanks (LUSTs) in West Virginia, maintained by the West Virginia Division of Environmental Protection;
- a database of LUSTs and other solid or hazardous waste sites in Virginia, maintained by the Virginia Department of Environmental Quality (VDEQ); and
- a database of LUSTs, landfills, and other solid or hazardous waste sites in North Carolina, maintained by the North Carolina Department of Environmental Quality.

The results of these reviews are provided in Table 2-1.

¹ CERCLIS and ACRES sites are commonly known as Federal Superfund and Brownfield sites, respectively.

TABLE 2-1

Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline

Project/Facility/State or Commonwealth/County	Nearest Milepost	Site Name	Distance and Direction from Project (feet)	Facility Type	Surface Drainage Direction from Project	Open or Closed Status
CERCLIS and ACRES Sites Identified within 1 mile of ACP (Centerline, unless otherwise noted)						
AP-2 Mainline						
North Carolina						
Northampton	7.8	Garysburg Community Center	4,562, W ^a	Brownfield	Upgradient	Active
Halifax	11.9	Weldon Refuse Disposal	4,245, W	Brownfield	Downgradient	Active
Johnston	91.4	Hot-Z Selma Spill	3,620, NW	Superfund Site	Upgradient	Active
AP-3 Lateral						
Virginia						
Chesapeake	81.9	Money Point Creosote Site	4,109, N	Superfund Site	Downgradient	Active
	81.9	Eppinger and Russel Co Inc.	4,472, N	Superfund Site	Downgradient	Active
	82.4	Borden Smith Douglass	54, S	Superfund Site	Side Gradient	Active
RCRA Corrective Action Sites Identified within 1 mile of ACP (Centerline, unless otherwise noted)						
AP-3 Lateral						
Virginia						
Chesapeake	81.5	Royster Co.	2,437, N	RCRA Corrective Action Site	Downgradient	Closed
FUDS Sites Identified within 1 mile of ACP (Centerline, unless otherwise noted)						
AP-3 Lateral						
Virginia						
Chesapeake	81.2	St. Julien's Creek Annex	3,000, N	FUDS Site/Superfund Site	Downgradient	Active
Landfill and Solid Waste Sites Identified within 0.5 mile of ACP (Centerline, unless otherwise noted)						
AP-1 Mainline						
Virginia						
Augusta	141.5	Jolivue Landfill/Augusta Regional Landfill	915, NE	Closed and Active Solid Waste Landfill Complex	Upgradient	Open
	150.2	Coal Ash Landfill	915, E	Coal Ash Landfill	Downgradient	Closed
AP-3 Lateral						
Virginia						
Southampton	19.4	SPSA-Boykins Transfer Station	451, SW ^a	Active Waste Transfer Station	Downgradient	Open
	33.2	SPSA-Franklin Transfer Station	472, SW ^a	Closed Waste Transfer Station	Upgradient	Closed
Chesapeake	81.0	Dominion Chesapeake Energy Center	317, E	Closed Industrial Landfill and Active Industrial Landfill	Side Gradient	Closed

TABLE 2-1 (cont'd)

Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline

Project/Facility/State or Commonwealth/County	Nearest Milepost	Site Name	Distance and Direction from Project (feet)	Facility Type	Surface Drainage Direction from Project	Open or Closed Status
	82.5	Atlantic Aggregate Recyclers	884, NE	Inert Landfill	Upgradient	Closed
VRP Sites within 0.5 mile of ACP (Centerline, unless otherwise noted)						
AP-3 Lateral						
Virginia						
Chesapeake	78.7	GE Tidewater Service Center	75, S	VRP	Downgradient	Active
	82.6	Chesapeake Propane 2-acre Site	500, N	VRP	Downgradient	Active
LUST Sites within 1000 feet of ACP (Centerline, unless otherwise noted)						
AP-1 Mainline						
Virginia						
Highland	88.0	Bussard Residence	210, N	LUST	Upgradient	Closed
	115.0	VDOT - McDowell Area Headquarters	50, E	LUST	Upgradient	Closed
	115.0	VDOT - McDowell	180, N	LUST	Upgradient	Closed
Augusta	109.5	Deerfield Grocery	784, S	LUST	Downgradient	Closed
	144.2	Starkey Residence	486, SW	LUST	Side Gradient	Closed
Nelson	169.2	Ridge Crest Baptist Church	720, SW	LUST	Upgradient	Closed
Buckingham	209.2	Betty Brown Property	640, E	LUST	Upgradient	Closed
Nottoway	236.7	Childress Property	586, W ^a	LUST	Upgradient	Closed
Brunswick	275.6	Daniel Russell Residence	992, E	LUST	Side Gradient	Closed
AP-2 Mainline						
North Carolina						
Nash	49.7	NCCU-Turner Law School	840, SE ^a	LUST	Side Gradient	Closed
	49.7	NCCU-Eagleson Hall	270, W	LUST	Downgradient	Closed
Johnston	109.0	Tippet Residential	616, SE ^a	LUST	Downgradient	Closed
Sampson	118.7	Plain View Grocery	965, SE	LUST	Upgradient	Open
Cumberland	126.3	McIntyre's Exxon	895, SE	LUST	Upgradient	Closed
	126.4	Godwin Grocery	729, SE	LUST	Upgradient	Closed
	145.1	Stricklands 2	538, E	LUST	Side Gradient	Closed
Robeson	182.7	Rudy's Restaurant	805, SW	LUST	Downgradient	Open
AP-3 Lateral						
Virginia						
Southampton	23.6	Cooke Betty M Residence	889, NW	LUST	Downgradient	Closed
Suffolk	45.5	Williamson Callie Residence	931, S	LUST	Side Gradient	Closed
	45.5	Williamson Callie Residence	881, S	LUST	Side Gradient	Closed

TABLE 2-1 (cont'd)

Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline

Project/Facility/State or Commonwealth/County	Nearest Milepost	Site Name	Distance and Direction from Project (feet)	Facility Type	Surface Drainage Direction from Project	Open or Closed Status
Chesapeake	52.8	Truck Stop West Amoco	704, E ^a	LUST	Side Gradient	Closed
	78.6	Deep Creek Pharmacy	160, SW	LUST	Downgradient	Closed
	78.8	Mid Atlantic Repair Inc.	535, S	LUST	Downgradient	Closed
	78.8	Watkins Motor Lines, Inc.	363, S	LUST	Downgradient	Closed
	80.1	Deep Creek Pumping Station	725, N	LUST	Up or Side Gradient	Closed
	81.2	IMTT – Chesapeake Terminal	626, NW	LUST	Upgradient	Closed
	81.5	Chesapeake Energy Center	706, S	LUST	Up or Side Gradient	Closed
	81.6	Chesapeake Energy Center	755, S	LUST	Up or Side Gradient	Open
	81.6	Chesapeake Energy Center	737, S	LUST	Up or Side Gradient	Closed
	81.6	Chesapeake Energy Center	724, S	LUST	Up or Side Gradient	Closed
	81.7	Chesapeake Energy Center	853, S	LUST	Up or Side Gradient	Closed
	82.0	OneSteel Recycling Inc.	899, N	LUST	Up or Side Gradient	Closed
	82.1	Smith Douglas Plant Former	431, S	LUST	Up or Side Gradient	Closed
	82.4	Quest Transport LLC	305, S	LUST	Downgradient	Closed

No contaminated sites, landfills, or LUST sites were found within the search distances identified above for SHP.

^a Distance from Access Road.

As shown in Table 2-1, review of EPA records identified two Federal Brownfield sites and four Federal Superfund sites within one mile of the proposed facilities. One of the Superfund sites and both of the Brownfield sites identified are located in North Carolina near the AP-2 mainline, while three of the identified Superfund sites are located along the eastern extent of the proposed AP-3 lateral in industrialized areas of the City of Chesapeake, Virginia. The ACP does not cross any of the Superfund or Federal Brownfield sites, with exception of the Borden Smith Douglass Site, which is undergoing final site closure within the Virginia Department of Environmental Quality's (VDEQ's) Voluntary Remediation Program (VRP); additional information on this site is provided in Section 8.0.

A search for landfills and solid waste facilities identified one mixed solid waste landfill near the AP-1 mainline and one industrial landfill and two waste transfer stations within 0.5 mile of the AP-3 lateral of the ACP. The ACP does not cross any landfills or solid waste facilities. A search for LUST sites within 1,000 feet of ACP facilities identified eight sites near the AP-1 mainline and seventeen sites near the AP-3 lateral in Virginia, and eight sites near the AP-2 mainline in North Carolina. The ACP does not cross any of the LUST sites identified (though one site is reported to be 50 feet north of the AP-1 mainline). No additional contaminated sites were identified within the applicable search distances of the ACP, and no known contaminated sites were identified along or near the ACP or SHP facilities in West Virginia or the SHP facilities in Pennsylvania.

3.0 PURPOSE

Atlantic and DETI recognize the potential for encountering unknown contaminated soil or groundwater during construction. This *Contaminated Media Plan* describes the steps that Atlantic/DETI and their Contractors² will implement in the event that suspected contaminated soil or groundwater is encountered during construction.

4.0 TRAINING

Prior to the start of construction, Atlantic and DETI will conduct environmental and safety training for Company and Contractor personnel. The training program will focus on the Federal Energy Regulatory Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures*; other construction, restoration, and mitigation plans, including this *Contaminated Media Plan*; and applicable permit conditions. In addition, Atlantic and DETI will provide large-group training sessions before each work crew commences construction with periodic follow-up training for groups of newly assigned personnel.

Prior to construction, Atlantic's and DETI's Environmental Inspectors (EIs)³ will be provided additional training focused on this *Contaminated Media Plan*, including the identification of signs of potential contamination, the implementation of containment and

² Contractor refers to the company or companies retained by Atlantic/Dominion Energy or another contractor to construct the proposed facilities.

³ The role and responsibilities of an Environmental Inspector are defined in the Federal Energy Regulatory Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan*.

response procedures, and requirements for notification to State/Commonwealth and Federal agencies. If signs of potential contamination are encountered during construction, Atlantic or DETI will stop work in the vicinity of the suspected contamination and mobilize a standby environmental contractor experienced in site assessment and remediation to test the suspected material using appropriate methodology and field equipment and assist with containment and response, as warranted.

5.0 IDENTIFICATION OF CONTAMINATED MEDIA AND INITIAL RESPONSE

Prior to excavation, Contractor personnel and Atlantic's and DETI's EIs will conduct a walk-through to observe work areas for signs of potential contamination, including:

- discoloration of soil;
- chemical-like odors from soil or water;
- oily sheens or puddles on soil;
- oily sheens on water;
- buried drums or other waste containers;
- buried waste (e.g., garbage, debris, ash, medical waste, or clinical containers);
- discolored surface water;
- differences in vegetation growth (phytotoxicity); and/or
- evidence of waste treatment practices.

The EIs will continue to observe work areas for signs of potential contamination as excavation activities are completed.

If signs of potential contamination which appear to exceed a de minimus threshold are encountered prior to or during excavation, the Contractor will stop work in the vicinity of the suspected contamination; restrict access to the suspected contamination site; and notify the crew foreman, an EI, the Spill Coordinator (identified in the *Spill Prevention, Control, and Countermeasures Plan*), Atlantic and/or DETI, and the site's landowner.

6.0 CONTAINMENT AND CHARACTERIZATION

The Contractor will initiate measures to avoid the spread of contaminants until the type of contaminant, its concentration, potential exposure routes, and management options are evaluated. If signs of potential contamination are observed during construction, the following response actions will be implemented.

- A. If potentially contaminated soil or groundwater is exposed during excavation activities, excavation will stop in the area of potential contamination and an EI and Atlantic/DETI representative will be contacted immediately.
- B. If potentially contaminated soil will not be backfilled, the soil will be placed on an impervious surface or 10-mil polyethylene and covered with 10-mil polyethylene to prevent rainfall run-on and run-off. The potentially contaminated soil will not be moved from the site by the Contractor unless approved to do so by the EI and/or Atlantic/DETI representative.

- C. If potentially contaminated groundwater is draining from the sides of the excavation and standing in the trench, temporary trench plugs will be installed to avoid the migration of the potentially contaminated groundwater to uncontaminated areas within the trench. Potentially contaminated groundwater will not be pumped from the trench.
- D. If a trench or excavation will be left open and precipitation may occur, measures will be implemented to prevent precipitation run-off from entering the trench (e.g., by installing waterbars to divert runoff from the trench and trench plugs to prevent the flow of contaminated water in the trench).
- E. Potentially contaminated soil and groundwater will be managed in accordance with applicable Federal, State/Commonwealth, and local laws and regulations.

Concurrent with the management of the contaminated media, representative soil and groundwater samples, as applicable, will be collected for chemical analysis. Appropriate tests or analyses for the expected contaminant class (based on a review of potential sources and recommendations from Atlantic's and DETI's standby environmental contractor) will be conducted by a qualified laboratory. Initial testing will be based on field observations and the suspected nature of the contamination. Laboratory analyses could include: total petroleum hydrocarbons, oil and grease, pH, volatile organic compounds, semi-volatile organic compounds, polychlorinated biphenyls, and/or metals.

Depending on the nature and extent of the contamination, Atlantic/DETI will notify the appropriate Federal, State/Commonwealth, and local regulatory agencies. Appropriate agencies include, but are not be limited to, the following:

- A. Pennsylvania Department of Environmental Protection Southwest Region at 1-412-442-4000 (24-hours).
- B. West Virginia Department of Environmental Protection at 1-800-642-3074 (24-hours).
- C. Virginia Department of Emergency Management at 1-804-674-2400 (24-hours, in-state calls only) or at 1-800-642-3074 (24-hours, out-of-state calls). Online spill reporting for non-emergency releases can be completed at <http://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/PollutionReportingForm.aspx>.
- D. North Carolina Department of Environment and Natural Resources, Division of Water Resources at 1-919-807-6308 during normal business hours or at 1-800-858-0368 (24-hours).
- E. National Response Center (Washington, D.C.) at 1-800-424-8802 (24 hours).

7.0 AVOIDANCE OR RESPONSE PLANS

If the contaminant identified is found to pose an immediate threat to human health or safety, the area of contamination will be evacuated and secured until trained personnel are onsite; the appropriate Federal, State/Commonwealth, or local agencies are notified as required by applicable law; and mitigation measures are implemented to allow the safe installation and operation of the pipeline, or the pipeline is routed to avoid the contaminated area. A route variation also may be considered if the contaminant identified is found to be a health or safety risk or harmful to the pipeline or operation of its cathodic protection system. Applicable permits and regulatory approvals will be obtained prior to proceeding with a route variation.

If the contaminant does not pose a health or safety concern and will not otherwise interfere with the pipeline, a written plan for completing construction within the contaminated area will be prepared. Test pits or borings may be excavated within the right-of-way to assess the extent of the contamination. Depending on the nature and extent of contaminated media, site-specific measures will be identified to complete construction across the contaminated area. These measures may include:

- storing excavated soil on an impervious surface or a sheet of 10-mil polyethylene;
- avoiding water withdrawals from the trench;
- removing and disposing of contaminated media at an approved disposal facility;
- replacing contaminated soil with clean backfill; and/or
- implementing staged withdrawal and disposal of standing trench water during backfilling to avoid overflow and runoff.

Contaminated soil will not be placed back in the trench unless approved by the appropriate regulatory agency and by Atlantic/DETI in writing. Site-specific construction plans for areas of contamination will be developed in accordance with environmental regulations, and approval of the plans by appropriate regulatory agencies will be obtained prior to implementation of the plans.

8.0 BORDEN SMITH DOUGLASS SITE

The Borden Smith Douglass Site (site), which is located at AP-3 MP 82.4 in the City of Chesapeake, Virginia, was used as a phosphate fertilizer processing facility by Smith Douglass (later Smith Douglass Borden) from the 1920s to the 1980s, resulting in the contamination of soil and groundwater at the site with various acids. In the early 1980s, the site was sold as three separate parcels (Parcels 1, 2, and 3) to Steuart Investment Company (Steuart), who leased portions of the site for various small-scale commercial operations, such as truck repair and electrical service. Pivotal Propane of Virginia, Inc. (Pivotal) purchased the three parcels in 2004 and cleared the site for redevelopment. Pivotal demolished and removed existing buildings and foundations, a railroad track and other debris and wastes from the site. Following the demolition

and clearing, Parcels 1 and 3 were left undeveloped and a propane peak shaving facility was established on Parcel 2.

The EPA conducted soil and groundwater quality investigations at the site in 1985 and 1986, and completed Environmental Site Assessments (ESAs) in 1997 and 1998. The initial EPA investigations led to an Administrative Order on Consent between Smith Douglass Borden, Steuart, and the EPA, which required the remediation of dioxin impacted soil in the vicinity of a manufacturing building on the site. The dioxin impacted soil was stored inside a building on-site for several years until it was disposed of off-site in 1995, when compliance with the terms of the Consent Order was completed. As a result, the site is listed on the CERCLIS as “No Further Remedial Action Planned”, and does not does not qualify for inclusion on the National Priority List.

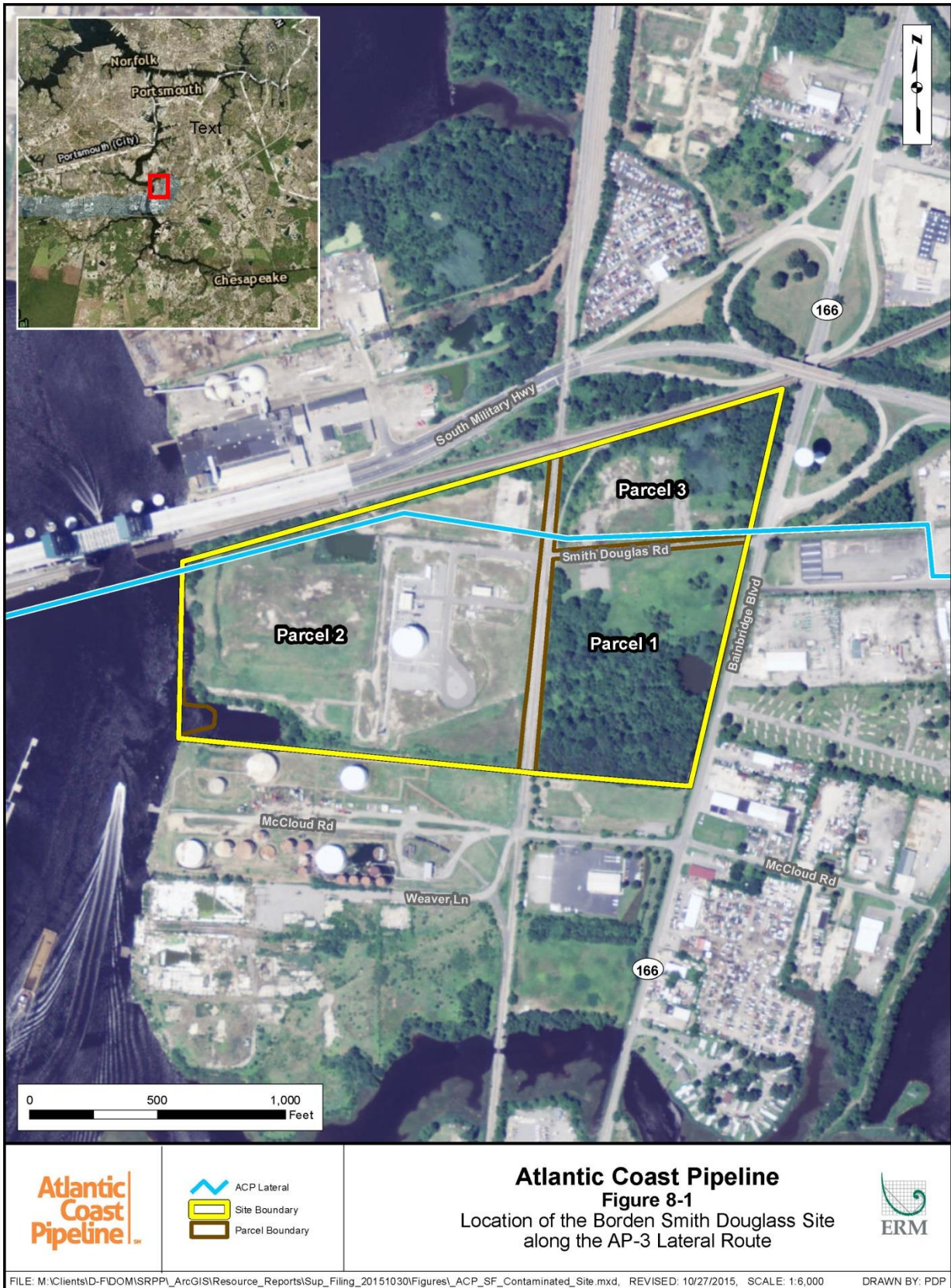
A Phase II ESA involving the collection of soil and groundwater samples from thirty soil borings was conducted at the Site in 2004. According to the Site Characterization Report, Site-related releases resulted in low pH in soil and groundwater in the southeast and north-central areas of Parcel 2, which could pose risk to industrial and construction workers through dermal exposure. Additionally, inorganics (metals) have been detected in groundwater within Parcels 1 and 2 at concentrations that exceed the Virginia VRP Tier 3 criteria, indicating a potential risk.

The site was enrolled in the VDEQ’s Voluntary Remediation Program in 2004. Since then, the site has been characterized and remediated and is currently awaiting final closure. Pivotal submitted a Draft Demonstration of Completion Report, Draft Public Notice, and Draft Certificate of Satisfactory Completion of Remediation (Draft Certificate) for the site to VDEQ in 2015. The following proposed institutional controls/deed restrictions are included in the Draft Certificate:

- Groundwater beneath the site (Parcels 1, 2, and 3) shall not be used for any purpose other than environmental monitoring and testing.
- The site (Parcels 1, 2, and 3) shall not be used for residential purposes or for children’s daycare facilities, schools, or playground purposes (although hotels and motels are not prohibited).
- For Parcel 1, excavations with the potential to encounter groundwater (greater than 5 feet in depth) must be conducted in accordance with a Site Operations Plan (SOP).
- For Parcel 2, excavations into soil and groundwater to any depth must be conducted in accordance with the SOP.

The SOP describes Operational Requirements for excavations to depths greater than 5 feet within Parcel 1 and for excavations or ground disturbances within Parcel 2 of the site. The requirements include plans and procedures related to worker safety and soil and groundwater disposal management. As of November 2016, the SOP has been reviewed and approved by the VDEQ and a draft Institutional Controls for the site is pending.

As shown in Figure 8-1, the proposed AP-3 lateral crosses approximately 1,300 feet of Parcel 2 and 750 feet of Parcel 3 at the site. Based on Atlantic's consultation with the VDEQ, installation of the ACP will not preclude final site closure efforts and will not lead to the spread of contaminated material during construction provided construction is completed in accordance with the SOP. Atlantic will coordinate with Pivotal regarding implementation of the SOP in connection with excavation or ground disturbances associated with the ACP, and will comply with the Operational Requirements specified in the Certificate of Satisfactory Completion of Remediation, when issued by the VDEQ. A copy of the SOP is provided as Attachment A.



**ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE**

and

**DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT**

Contaminated Media Plan

**ATTACHMENT A
Site Operations Plan for the Borden Smith Douglass Site**



CH2M HILL
5701 Cleveland Street
Suite 200
Virginia Beach, VA 23462
Tel 757.518.9666
Fax 757.497.6885

May 21, 2015

Mr. William Lindsay
Virginia Department of Environmental Quality
Voluntary Remediation Program
629 East Main Street
Richmond, Virginia 23219

Dear Mr. Lindsay:

This correspondence is in response to the direction provided by the Department of Environmental Quality (DEQ) in the letter dated July 02, 2014, to move the Former Steuart Investment Company Site in Chesapeake, Virginia (VRP00386) forward toward closure in the Voluntary Remediation Program. The following attachments are provided for DEQ review and input:

- **Enclosure 1, Draft Demonstration of Completion Report.** The Draft Demonstration of Completion Report has been prepared with available information. For consideration during review, some of the content is dependent upon other items and requires future refinement. These items are highlighted in this submittal and include:
 - Public comment period: Information regarding the public comment period (e.g., public notice date, public comment period dates, summary of public comments) is summarized in Section 3. Because the public comment period has not yet been conducted, placeholder text is included. It will be updated in the final submittal.
 - Certification of Completion: The Operations Plan (Attachment 1 of the Demonstration of Completion Report) includes an excerpt from the Certificate of Satisfactory Completion, which has not yet been issued. The text will be compared to the future Certificate of Completion and updated, if needed, in the final submittal.
 - Property Owner Certification Statement: The Property Owner Certification Statement (Attachment 2 of the Demonstration of Completion Report) will be signed by the property owner in the final submittal.

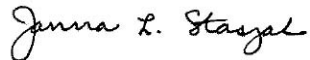
It should be noted that, as requested, the Operations Plan (Attachment 1 of the Demonstration of Completion Report) has been updated to address the latest changes in Voluntary Remediation Program (VRP) policy regarding these types of plans. Specifically:

- Section 4.1 incorporates the required language regarding health and safety plans.
- Section 4.7 incorporates the boilerplate language regarding management and disposal of materials.
- Figure 1 has been added to show the location and boundaries of the designated parcels at the site.

- **Enclosure 2, Draft Notice of Voluntary Remediation.** As requested, the draft public notice is provided for DEQ review. The public review period will be initiated upon receipt of direction to do so by DEQ.
- **Enclosure 3, Draft Certificate of Satisfactory Completion of Remediation.** For DEQ's convenience, the template for the Certificate of Satisfactory Completion of Remediation available on the VRP web site has been populated with project-specific information. Additional information can be provided or clarifications can be made if needed.

We hope that this information satisfactorily addresses the remaining VRP requirements. Upon receipt of your comments on or acceptance of these documents, we will initiate the public review period and finalize the Demonstration of Completion Report. Additionally, the Declaration of Restrictive Covenants will be filed with the city of Chesapeake. We look forward to working with you and the Department to obtain a Voluntary Remediation Program Certificate of Satisfactory Completion of Remediation for this site. Please contact me at (757) 671-6256 or janna.staszak@ch2m.com with any comments or additional instruction.

Sincerely,



Janna Staszak, P.E.
Project Manager

cc: Mr. Steven Cook, AGL Resources
Mr. Kevin Greene, VDEQ

Enclosure 1
Draft Demonstration of Completion Report

Former Steuart Investment Company Site (VRP00386) Demonstration of Completion Report, Chesapeake, Virginia

TO: Virginia Department of Environmental Quality Voluntary Remediation Program

COPY: Pivotal Propane of Virginia, Inc.

FROM: CH2M HILL

DATE: May 19, 2015

1. Introduction

This Demonstration of Completion Report documents the activities associated with the implementation of the selected remedy at the Former Steuart Investment Company Site, located at 1316 Smith Douglas Road, Chesapeake, Virginia. This report has been prepared in accordance with Virginia Administrative Code (VAC) 9VAC20-160-70(A)(4).

On February 9, 2004, Pivotal Propane of Virginia, Inc. (Pivotal) was granted bona fide prospective purchaser status with the Commonwealth of Virginia Department of Environmental Quality (VDEQ) for the purchase of the property. Pivotal purchased the site on April 28, 2004, and developed the site as a propane peak shaving facility. On June 9, 2004, the site was deemed eligible for participation in the VDEQ Voluntary Remediation Program (VRP) and later that month was enrolled, as number VRP00386, with a \$5,000 enrollment fee payment. The site has been characterized and remediated under the VDEQ VRP.

2. Site Information

The site is located near the southwest corner of the intersection of Military Highway and Bainbridge Boulevard in Chesapeake, Virginia (**Figure 1**). The site is bordered to the north by railroad tracks; to the east by Bainbridge Boulevard; to the south by Gowen Chemical Corporation and Swift Agricultural Chemicals Corporation; and to the west by the Southern Branch of the Elizabeth River. The site also includes an approximately 400-foot by 100-foot slip on the Elizabeth River in its southwest corner. Prior to industrial development in the late 1920s, site land use was undeveloped and/or agricultural. Since the late 1920s, site land use has been industrial.

From the late 1920s through the early 1980s the site was used as a phosphate fertilizer plant. Ancillary operations included the manufacture of various acids (sulfuric and phosphoric) used in the production of superphosphate and triple superphosphate, which are components of many fertilizers. Several of the fertilizers were amended with other chemicals, including silvex, urea, potash, and soda ash, to produce final products. Primary raw products were phosphate rock (used for the manufacture of phosphatic fertilizer base and phosphoric acid) and elemental sulfur (used to make sulfuric acid). These were received by barge or rail and stored in silos (phosphate rock), bulk outdoor storage (sulfur), and tanks (acids and liquid chemical additives). Solids were handled by screw and belt conveyors; liquids by piping (both interior and exterior).

During its operational history, the site was improved with numerous buildings and related infrastructure. The majority of the structures were located on the western portion of the site (what became Parcel 2). These structures consisted of large warehouses and process buildings; acid plants; bulk outdoor storage bins for solids; support activities such as garage, repair, carpentry shops, and cook- and bath-houses; and smaller structures. Smaller structures included office buildings, a scale house, and numerous miscellaneous structures. The northeastern portion of the site (what became Parcel 1) housed a smaller-scale pilot plant and a research, development, and laboratory building. The east-central and southeast portions (what became Parcel 3) were reportedly never developed and contained only a drainage pond.

The site was split into three separate parcels and sold to the Steuart Investment Company in the early 1980s. Subsequent to the sale, portions of the site were leased to various small-scale operations including truck repair, electrical service, and other commercial activities. Steuart Investment Company reportedly also used or leased the site for storage of highway road salts and similar materials.

In April 2004, Pivotal purchased all three parcels including the remaining buildings, pads, foundations, surface cover, and railroad tracks. Following the purchase of the site, Pivotal completed the demolition of all site buildings (four buildings in Parcel 2 and one building in Parcel 3), including associated slab foundations and building utilities, and removal of railroad tracks in preparation for site development. An erosion and sediment control plan, which included installation of a sediment trap and two sediment basins, was developed and implemented prior to intrusive activities. In association with the demolition, the following site clean-up actions were taken:

- Waste and materials within the buildings and on the ground surface were removed and disposed off site, including
 - Approximately 1,170 tons of asbestos-containing material (ACM) from the buildings
 - Approximately 20,120 tons of non-ACM debris and wastes from within and outside of the buildings
- Four underground storage tanks, including associated piping and petroleum impacted soil (2,680 tons), were removed and disposed off site
- Sulfur-containing soil (2,950 tons) was excavated and disposed off site.

Pivotal constructed a propane peak shaving facility on Parcel 2 in 2004 and commissioned in in early 2005. The propane peak shaving facility stores 3.3 million gallons of propane for vaporization and use during peak demand for natural gas in the winter. Upon completion of facility construction, the erosion and sediment controls were left in place in Parcel 2. Parcels 1 and 3 were not developed.

Abandonment of the erosion and sediment controls was conducted in November to December 2014. Abandonment activities included backfilling the sediment basins and sediment trap; grading the sediment basins, sediment trap, outlet protections, and diversion dikes to match the surrounding grade and drain north; installing a permanent drainage ditch to connect the existing site drainage ditches to the culvert along the north edge of the site; applying permanent seeding across all disturbed areas; and installing erosion control matting within the drainage ditch. The sediment trap and sediment basin were located in an area of the site with low pH groundwater and soil. Because of the shallow water table, standing water in the sediment basins and/or trap was determined to also have a low pH. Therefore, abandonment included pumping and containerizing the standing water and treating it to raise the pH to an acceptable range (pH between 6 and 7). Following treatment, the water was discharged through a sediment filter bag into a site drainage ditch. The abandonment of the erosion and sediment controls eliminated standing surface water from Parcel 2.

3. Remedial Actions

Investigation activities were conducted at the site between 1998 and 2007 and are summarized in the Site Characterization Report (CH2M HILL, 2007). Based on current and planned land use, the site was evaluated using the VRP Tier 3 criteria, which is for sites with restricted use. Site-related releases were determined to have resulted in low pH in soil and groundwater in the southeast and northcentral areas of Parcel 2 which pose risk to industrial and construction workers through dermal exposure. Additionally, inorganics (metals) have been detected in groundwater within Parcels 1 and 2 at concentrations that exceed the Virginia VRP Tier 3 criteria, indicating a potential risk. To ensure land use remained consistent with how it was evaluated and to address the risks that were identified, the following Remedial Action Objectives (RAOs) were established:

- Prevent potable use of site groundwater
- Prevent residential development and establishment of schools, daycare facilities, and playgrounds

- Prevent dermal contact with groundwater in Parcel 1
- Prevent dermal contact with groundwater and soil in Parcel 2

The Remedial Action selected to achieve these RAOs is Land Use Controls. The LUCs consist of deed restrictions, which were filed with the City of Chesapeake in the Commonwealth of Virginia to provide public notice of the environmental conditions and LUCs applicable to the property and to record the LUC boundary. The deed restricts include the following restrictive covenants to achieve the RAOs:

- The groundwater beneath the Property (Parcels 1, 2, and 3) shall not be used for any purpose other than environmental monitoring and testing.
- The Property (Parcels 1, 2, and 3) shall not be used for residential purposes or for children’s daycare facilities (under the age of 16), schools, or playground purposes (hotels and motels are not prohibited).
- For Parcel 1 of the Property, excavations with the potential to encounter groundwater (greater than 5 feet in depth) must be conducted in accordance with the site Operations Plan (**Attachment 1**).
- For Parcel 2 of the Property, excavations into soil and groundwater to any depth must be conducted in accordance with the site Operations Plan (**Attachment 1**).

The LUCs will be maintained and may be modified or released only with the consent of the Director of the VDEQ, upon a showing of changed circumstances sufficient to justify the change.

In accordance with 9VAC20-160-120, Pivotal provided a public comment period from DATE through DATE for the proposed voluntary remediation of contaminated media at the site. A public notice of the meeting and availability of documents was placed in *The Virginian-Pilot* newspaper on DATE. No significant comments or additional written comments, concerns, or questions were received from community members during the public comment period.

4. Demonstration of Completion

The following items demonstrate the completion of remediation at the site:

- VDEQ acceptance of the completion of the site characterization and risk assessment phases of the VRP process via VDEQ letter dated July 2, 2014 (VDEQ, 2014)
- Closure of the sediment basins and sediment trap, which were filled in, thereby eliminating the potential surface water exposure routes
- Finalization of the site Operations Plan (**Attachment 1**)
- Submittal of the public notice
- Implementation of the approved remedial action consisting of LUCs in the form of deed restrictions filed with the City of Chesapeake in the Commonwealth of Virginia

Certification that the VRP activities have been performed in compliance with all applicable regulations is provided as **Attachment 2**.

5. References

CH2M HILL. 2007. *Site Characterization Report Former Steuart Investment Company Site, 1316 Smith Douglas Road, Chesapeake, Virginia*. December.

VDEQ. 2014. Letter to AGL Resources regarding Former Steuart Investment Company, Voluntary Remediation Program (VRP) site #00386. July.

Figure



- Legend**
- Site Boundary
 - Parcel Boundary

Imagery: Esri, 2015

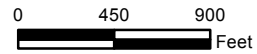


Figure 1
Site Location and Layout
Demonstration of Completion Report
AGL Pivotal Propane Peak Shaving Facility
Chesapeake, Virginia

Attachment 1 -Operations Plan

**Operations Plan
Parcels 1 and 2, Former Steuart Investment Co.
Property
Chesapeake, Virginia
VRP Number VRP00386**

May 2015

1 Introduction

This Site Operations Plan summarizes the approach for protecting those individuals who engage in excavation from the risk associated with residual contamination present and potentially present in the subsurface at Parcels 1 and 2 of the Former Steuart Investment Company property, located west of the intersection of Smith Douglas Road and Bainbridge Boulevard, in Chesapeake, Virginia (Site) (**Figure 1**). This property is a brownfield site that was impacted by chemical releases associated with historic uses and past practices. The Site was enrolled in the Virginia Department of Environmental Quality (VDEQ) Voluntary Remediation Program (VRP) as number VRP00386 and has been characterized and remediated under that Program. A Certificate of Satisfactory Completion is being issued by VDEQ for this property, upon work completion.

The Site is divided into three separate Parcels: Parcel 1 is bounded by Norfolk and Portsmouth Beltline Railroad to the west, Smith Douglas Road to the North, Bainbridge Boulevard to the east, and property now or formerly belonging to Gowen Chemical Corporation to the south. Parcel 2 is bounded by the Southern Branch of the Elizabeth River to the west, Norfolk and Southern Railroad line to the north, Norfolk and Portsmouth Beltline Railroad to the east, and property now or formerly belonging to Swift Agricultural Chemicals Corporation to the south. Parcel 3 is bounded by Norfolk and Portsmouth Beltline Railroad to the west, Norfolk and Southern Railroad line to the north, Bainbridge Boulevard to the east, and Smith Douglas Road to the south.

This Site Operations Plan is to be followed by all future owners and users of the Site.

2 Background

Key background and project information is summarized in the Discussion of Relevant Information section of the Certificate of Satisfactory Completion. The Certificate indicates in part:

Past releases resulted in low pH in soil and groundwater in the southeast and northcentral areas of Parcel 2 which pose risk to industrial and construction workers through dermal exposure. Additionally, inorganics have been detected in groundwater within Parcels 1 and 2 at concentrations that exceed the Virginia Voluntary Remediation Program Tier 3 criteria, indicating a potential risk. These risks are being and can continue to be effectively managed by taking the necessary health and safety precautions.

In order to mitigate unacceptable risk to industrial and construction workers, and other potential receptors, institutional controls have been implemented that: (1) prohibit the use of groundwater from Parcel 1, 2, or 3 for any purpose other than environmental monitoring and testing, (2) prohibit the use of Parcels 1, 2, or 3 for residential, children's daycare (under the age of 16), schools, or playground development (hotels and motels are not prohibited), and (3) ensure excavations

into groundwater within Parcel 1 and Parcel 2 and soil within Parcel 2 are conducted in accordance with the site Operations Plan.

3 Purpose and Goal of the Site Operations Plan

This Site Operations Plan was developed to mitigate potential risks to on-site construction workers or other individuals who actively participate in on-site excavations within Parcels 1 and 2 of the Site. The Plan describes procedures to be followed by those conducting excavation activities at the Site provides a framework for exercising appropriate care given the presence and potential presence of residual contamination.

4 Operational Requirements

The following operational requirements are the minimum requirements that will apply to excavation to a depth greater than 5 feet below ground surface within Parcel 1 and to any excavation or ground disturbances within Parcel 2 of the Site. This is not a comprehensive list of requirements that might apply to Site activities. All pertinent OSHA regulations must be followed and supersede the following general descriptions.

4.1 Health and Safety Program

A Site-specific health and safety plan is required to address the risk associated with dermal exposure to chemical residuals in the groundwater within Parcels 1 and 2 and low pH in the subsurface within Parcel 2. The health and safety plan shall be consistent with National Institute for Occupational Safety and Health (NIOSH) Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Occupational Safety and Health Administration (OSHA) regulations (particularly in 29 Code of Federal Regulations [CFR] 1910 and 1926), state and local regulations, and other United States Environmental Protection Agency (USEPA) guidance, and shall be implemented upon excavation within the contaminated soil and/or groundwater.

4.2 Site Characterization and Analysis

A Site Characterization Report (SCR) was completed as part of the VDEQ VRP process. The SCR is available in VDEQ files. The information in the SCR may be used as guidance for conducting characterization and analysis. Additional field testing of environmental media is discussed below in Section 4.6.

4.3 Site Control

Excavation area-specific control, including development of an exclusion zone and support zone, will be established when warranted by potential inorganics concentrations or pH conditions at the specific location of where excavation is to be conducted.

4.4 Training

Workers who will perform excavation activities within Parcels 1 and 2 should have appropriate training as required by Occupational Safety and Health Administration (OSHA) based on the current site conditions and characterization.

4.5 Engineering Controls, Work Practices, and Personal Protective Equipment for Employee Protection

Appropriate engineering controls, work practices, and personal protective equipment will be planned and implemented based on the existing Site characterization and possibly future Site monitoring.

4.6 Location-specific Testing

Monitoring of soil and groundwater pH is required in advance of digging to further specify the need for engineering controls, work practices, and personal protective equipment. Soil pH will be field tested when excavation occurs within Parcel 2. Additionally, groundwater pH will be field tested whenever it is encountered within Parcel 2.

Monitoring will consist of field measurement of pH within each target work area. In addition to pH, the date, depth-to-water, and location (relative to two previously mapped Site features) will be recorded by the lead PPOV representative at the Site at the time the work is being performed.

4.7 Management and Disposal of Materials

Excavated soil must be returned to the same depth and area from which it was excavated or properly managed or disposed in accordance with applicable state and federal regulations. Groundwater discharged, pumped, or otherwise removed from an excavation must be properly managed or disposed in accordance with applicable state and federal regulations. Prior to disposal, excavated soil and groundwater removed by dewatering will be tested in accordance with applicable state and federal regulations. See section 4.2 for information of characterization and analysis. Due care will be exercised when handling and disposing of these materials.

4.8 Decontamination

Decontamination of equipment and personnel will be necessary unless future Site monitoring indicates that low pH is not present in the work area.

5 Plan Review

This plan is being attached to a VDEQ Certificate of Satisfactory Completion and is being recorded as a deed restriction. The requirements of this Site Operations Plan may therefore survive for an extended period of time. A competent person should review this

document with respect to current regulations to assure compliance with future regulatory requirements at the time of use.

FIGURE



- Legend**
- Site Boundary
 - Parcel Boundary

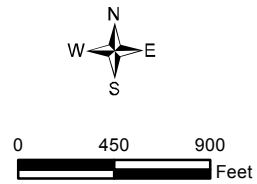


Figure 1
Site Location and Layout
Operations Plan
Parcels 1 and 2, Former Stuart Investment Co. Property
Chesapeake, Virginia

**Attachment 2 – Property Owner Certification
Statement**

PROPERTY OWNER CERTIFICATION STATEMENT
[9VAC20-160-70(A)(4)(e)]

“I certify that activities performed at the Former Steuart Investment Company Site, VRP00386, pursuant to 9VAC20-160 have been performed in compliance with all applicable regulations.”

Pivotal Propane of Virginia

[Property Owner]

[Name of Program Participant]

[Signature of Program Participant]

[Date]

Enclosure 2
Draft Notice of Voluntary Remediation

NOTICE OF VOLUNTARY REMEDIATION

Pivotal Propane Peak Shaving Facility – Former Steuart Investment Company Site
1316 Smith Douglas Road
Chesapeake, Virginia
Site ID No. VRP00386

You are receiving this courtesy notice on behalf of the Voluntary Remediation Program (VRP) administered by the Virginia Department of Environmental Quality (VDEQ) to inform you that voluntary remediation activities are being conducted at the Pivotal Propane Peak Shaving Facility, which is the Former Steuart Investment Company Site (Site), located at 1316 Smith Douglas Road, Chesapeake, Virginia. This Notice has been prepared for nearby property owners and other parties that may be interested in the remediation activities at the Site. In accordance with Virginia Administrative Code (VAC) 9VAC20-160-120, Pivotal Propane of Virginia, Inc. is soliciting public comment on the proposed voluntary remediation of contaminated media at the Site. From the late 1920s through the early 1980s the site was used as a phosphate fertilizer plant. The site was split into three separate parcels in the early 1980s. Parcels 1 and 3 are currently undeveloped and Parcel 2 currently contains the Pivotal Propane Peak Shaving Facility. Environmental investigations have identified past releases which resulted in low pH in soil and groundwater in the southeast area of Parcel 2 which pose risk to industrial and construction workers through dermal exposure. Additionally, inorganics (metals) have been detected in groundwater within Parcels 1 and 2 at concentrations that exceed the VRP Tier 3 criteria, indicating a potential risk. Remedial action activities completed to mitigate the risks in soil and groundwater included removal and offsite disposal of surface debris and waste materials on the ground surface and within the buildings, removal and offsite disposal of four underground storage tanks (USTs) including associated piping and petroleum impacted soil, and removal and offsite disposal of sulfur impacted soil. The selected remedy for the site consists of institutional controls to (1) prohibit the use of Parcels 1 or 2 groundwater for any purpose other than environmental monitoring and testing, (2) prohibit the use of Parcels 1 or 2 for residential, children's daycare (under the age of 16), schools, or playground development (hotels and motels are not prohibited), and (3) ensure excavations into groundwater within Parcel 1 and soil or groundwater within Parcel 2 are conducted in accordance with the Site Operations Plan. A Certification of Satisfactory Completion of Remediation will be issued by VDEQ upon completion of the VRP requirements.

How to Ask Questions or Comment Regarding this Notice

All *verbal* questions regarding this notice or Pivotal Propane of Virginia, Inc. involvement in the Virginia VRP should be directed to the Pivotal Propane Manager, Environmental Programs, Mr. Steve Cook of AGL Resources, at (908) 662.8317.

All *written* comments regarding this notice or Pivotal Propane of Virginia, Inc. involvement in the Virginia VRP should be directed to:

Mr. Steve Cook
AGL Resources
520 Green Lane
Union, New Jersey 07083
scook@aglresources.com

ALL COMMENTS REGARDING THIS NOTICE MUST BE SUBMITTED IN WRITING AND POSTMARKED NO LATER THAN

(30 days from Issuance of Notice)

Enclosure 3
Draft Certificate of Satisfactory Completion of Remediation

Prepared by: Virginia Department of Environmental Quality
629 E. Main Street
Richmond, Virginia 23219
(804) 698-4000

Grantor: Pivotal Propane of Virginia, Inc.
Grantee: Pivotal Propane of Virginia, Inc.

DRAFT
COMMONWEALTH OF VIRGINIA
VOLUNTARY REMEDIATION PROGRAM
CERTIFICATION OF
SATISFACTORY COMPLETION OF REMEDIATION

Program Participant[s]: Steven L. Cook

Site Owner: Pivotal Propane of Virginia, Inc.

Site Name: Former Steuart Investment Company Site

Site Location:
(plat attached) 1316 Smith Douglas Road

Voluntary Remediation Program Site ID Number: VRP00386

Deed Book and Page Number of Site Owner's Title: Deed Book No. 5408
(or Instrument Number based on County requirements) Deed Book Page 0033

County of Record: Chesapeake

Description of Property: ± 50.7 Acres

Current Zoning: Industrial

Proposed Use of Property: Industrial

Conditions of Issuance (if any): Institutional Controls - deed restrictions incorporated in the Declaration of Restrictive Covenants that: (1) groundwater beneath the Site (Parcels 1, 2, and 3) shall not be used for any purpose other than environmental monitoring and testing; (2) the Site (Parcels 1, 2, and 3) shall

Conditions of Issuance (cont.):

not be used for residential purposes or for children's (under the age of 16) daycare facilities, schools or playground purposes (although hotels and motels are not prohibited); (3) for Parcel 1, excavations with the potential to encounter groundwater (greater than 5 feet in depth) must be conducted in accordance with the site Operations Plan; and (4) for Parcel 2, excavations into soil and groundwater to any depth must be conducted in accordance with the site Operations Plan.

Other Encumbrances on Site:

None known

AUTHORITY

PURSUANT to Code of Virginia §§ 10.1-1230 *et seq.*, and the Voluntary Remediation Regulations (Virginia Administrative Code §§ 20-160-10 *et seq.* (VAC)), the Participant submitted an application on [Date], to enroll the Participant and the Site in the Voluntary Remediation Program (Program). By letter dated [Date], the Waste Management Board, acting through the Director of the Department of Environmental Quality (Director) deemed the Participant and Site eligible and notified the Participant that the Site was enrolled in the Program. The Program provides for the Participant's voluntary remediation of releases of hazardous substances, hazardous waste, solid waste, or petroleum from the Site that is the subject of this Certification of Satisfactory Completion of Remediation (Certificate), issued under 9 VAC 20-160-110.

DETERMINATION

Pursuant to the authority granted under Va. Code §§ 10.1-1230 *et seq.*, the Director, or his designee, has reviewed the Voluntary Remediation Report (Report), concurs with all work submitted, as set forth in 9 VAC 20-160-80, has determined that the environmental impacts identified at the Site do not present an unacceptable risk to human health and the environment [if the institutional controls mentioned above are implemented] and hereby issues this Certificate. No further action is required at the Site except for the imposition of institutional controls as noted above.

As a result of the issuance of this Certificate, the Participant, current and future Site owners, and their successors-in-interest are afforded immunity from an enforcement action under the Virginia Waste Management Act (§§ 10.1-1400 *et seq.*), the State Water Control Law (§§ 62.1-44.2 *et seq.*), the Air Pollution Control Law (§§ 10.1-1300 *et seq.*), or other applicable Virginia law.

The immunity accorded by the Certificate shall apply to the Participant, current and future owners of the Site and their successors-in-interest, and shall run with the land identified as the Site.

RESERVATION OF RIGHTS

The immunity granted by issuance of this Certificate shall be limited to Site conditions at the time of issuance as those conditions are described in the information submitted by the Participant pursuant to participation in the Program. The immunity is further conditioned upon satisfactory performance by the Participant of all obligations required by the Director under the Program and upon the veracity, accuracy, and completeness of the information submitted to the Director by the Participant relating to the Site.

The immunity provided for under this Certificate does not pertain to any matter other than that expressly specified in the section above entitled "Determination." The Director reserves, and this immunity is without prejudice to, the right to revoke or modify the Certificate (1) in the event conditions at the Site, unknown at the time of issuance of the Certificate, pose a risk to human health or the environment; or (2) in the event that the Certificate was based on information that was false, inaccurate, or misleading. The Director further reserves, and this Certificate and immunity is without prejudice to, the right to pursue any and all claims for liability for failure to meet a requirement of the Program, criminal liability, or liability arising from future activities at the Site which may cause contamination by pollutants. By issuance of this Certificate, the Director does not waive sovereign immunity.

This Certificate is not and shall not be interpreted to be a permit or a modification of an existing permit or administrative order issued pursuant to state law, nor shall it in any way relieve the Participant of its obligation to comply with any other federal or state law, regulation, or administrative order. Any new permit or administrative order, or modification of an existing permit or administrative order must be accomplished in accordance with applicable federal and/or state laws and regulations.

DISCUSSION OF RELEVANT INFORMATION

From the late 1920s through the early 1980s the site was used as a phosphate fertilizer plant. Ancillary operations included the manufacture of various acids (sulfuric and phosphoric) used in the production of superphosphate and triple superphosphate, which are components of many fertilizers. Several of the fertilizers were amended with other chemicals, including silvex, urea, potash, and soda ash, to produce final products. Primary raw products were phosphate rock (used for the manufacture of phosphatic fertilizer base and phosphoric acid) and elemental sulfur (used to make sulfuric acid). These were received by barge or rail and stored in silos (phosphate rock), bulk outdoor storage (sulfur), and tanks (acids and liquid chemical additives). Solids were handled by screw and belt conveyors; liquids by piping (both interior and exterior). The site was split into three separate parcels and sold to Stuart Investment Company in the early 1980s. In April 2004, Pivotal Propane of Virginia, Inc. (Pivotal) purchased the property.

Pivotal completed the demolition of all site buildings, including associated slab foundations and building utilities, and removal of railroad tracks in preparation for site development. Parcels 1 and 3 are currently undeveloped and Parcel 2 currently contains a propane peak shaving facility. Past releases resulted in low pH in soil and groundwater in the southeast and northcentral areas of Parcel 2 which pose risk to industrial and construction workers through dermal exposure. Additionally, inorganics (metals) have been detected in groundwater within Parcels 1 and 2 at concentrations that exceed the Virginia VRP Tier 3 criteria, indicating a potential risk. These risks are being and can continue to be effectively managed by taking necessary health and safety precautions. In order to mitigate unacceptable risk to industrial and construction workers, and other potential receptors, institutional controls have been implemented that (1) prohibit the use of groundwater from Parcel 1, 2, or 3 for any purpose other than environmental monitoring and testing, (2) prohibit the use of Parcels 1, 2, or 3 for residential, children's daycare (under the age of 16), schools, or playground development (hotels and motels are not prohibited), and (3) ensure excavations into groundwater within Parcel 1 and Parcel 2 and soil within Parcel 2 are conducted in accordance with the site Operations Plan.

In consideration of the implementation of the above-noted institutional controls, the Director has accepted the conclusions of the Report.

This Certificate is conditioned upon its being signed by the Participant and owner, and recorded within 90 calendar days of its issuance, in the land records of Chesapeake, Virginia. A certified copy of the Certificate as recorded must be submitted to the Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218, ATTN: Voluntary Remediation Program.

**David K. Paylor, Director
Department of Environmental Quality**

Date: _____

BY: _____
Durwood H. Willis, Director
Office of Remediation Programs

Date: _____

BY: _____
[Name of Owner]

State of _____, County of _____

The foregoing instrument was acknowledged before me this [date] by [name of person acknowledged] .

[Notary]

[If the Owner and Participant are not the same:]

Date: _____ BY: _____
[Name of Participant]

State of _____, County of _____

The foregoing instrument was acknowledged before me this [date] by
[name of person acknowledged].

[Notary]

DECLARATION OF RESTRICTIVE COVENANTS

THERE ARE SEPARATE DECLARATIONS OF RESTRICTIVE COVENANTS FOR EACH PARCEL TO BE INSERTED INTO THE CERTIFICATE.

The foregoing instrument was acknowledged before me this [date] by [name of person acknowledged] .

 [Notary]

[If the Owner and Participant are not the same] _____
[Name of Participant]

State of _____, County of _____

The foregoing instrument was acknowledged before me this [date] by [name of person acknowledged] .

 [Notary]

[If there is a deed of trust] _____
[Name], Trustee

State of _____, County of _____

The foregoing instrument was acknowledged before me this [date] by [name of person acknowledged] .

 [Notary]

[If there are other encumbrances listed on the Certificate] _____
[Name]

State of _____, County of _____

The foregoing instrument was acknowledged before me this [date] by [name of person acknowledged] .

 [Notary]