Spill Prevention, Control and Countermeasure Plan

William & Mary
Williamsburg, Virginia

WILLIAM & MARY

CHARTERED 1693

Prepared For:
William & Mary
P.O. Box 8795
Williamsburg, Virginia 23187-8795

Issued February 2016
Revised November 2021

Draper Aden Associates
Engineering • Surveying • Environmental Services

CERTIFICATION

I hereby certify that Draper Aden Associates has reviewed the facility, and being familiar with the requirements of 40 CFR Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and establishment of procedures for required inspections and testing, and that this Plan is adequate for the facility.

Engineer: William G. Hase, P.E.

Seal and Signature: _____

Registration Number: **021807**

State: **Virginia**

Date: 3-31-22

FACILITY MANAGEMENT APPROVAL

Officials at the William & Mary facility are committed to the prevention of discharges of oil to navigable waters and the environment and maintain the highest standards for spill prevention, control, and countermeasures through regular review, updating, and implementation of this SPCC Plan. I hereby certify that William & Mary extends its full approval of this SPCC Plan, and will commit the resources necessary for implementation.

Authorized Facility Representative: Sam Hayes

Title: Chief Facilities Officer

Signature: Samuel Hayes III

Date: Apr 20, 2022

FIVE-YEAR SPCC PLAN REVIEW AND EVALUATION

In accordance with 40 CFR Part 112.5(b), a review and evaluation of this SPCC Plan is conducted by William & Mary at least once every five years. As a result of this review and evaluation, William & Mary will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a discharge of oil in quantities that may be harmful, as described in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines; and if (2) such technology has been field proven at the time of review. Any technical amendment(s) to the SPCC Plan will be reviewed and certified by a Licensed Professional Engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil in quantities that may be harmful, as described in 40 CFR Part 10, into or upon navigable waters of the United States or adjoining shorelines.

As such, William & Mary has completed a full review of this SPCC Plan, as herein described. The following result of the review is noted (check one):

[X] Major changes to the William & Mary campus have occurred since the last review; therefore, the SPCC Plan must be appropriately updated and re-certified by a Licensed Professional Engineer.

[ ] The SPCC Plan for the William & Mary campus was reviewed on the date specified below and no amendment to the SPCC Plan is necessary per 40 CFR Part 112.5(b).

[ ] The SPCC Plan for the William & Mary campus was reviewed on the date specified below and the SPCC Plan has been amended to include more effective prevention and control technology.

[ ] Minor administrative (non-technical) changes to the William & Mary campus have occurred since the last review, and the SPCC Plan has been appropriately updated.

Reviewed On: _____

Reviewer's Signature: _____

Reviewer's Name: _____

(Copies of this page should be made for subsequent reviews, and all completed pages must be signed and appended to the SPCC Plan. If the Plan is amended based on the above review, a copy of the previous version of this page should be made and the Licensed Professional Engineer's Certification of the amendment must be completed and maintained with the SPCC Plan.)

SPCC PLAN REVISIONS SUMMARY

DATE	DESCRIPTION OF REVISIONS	REVISIONS BY
February 2000	Original SPCC Plan Prepared	Clough Harbour & Associates LLP
February 2006	SPCC updated in accordance with 40 CFR Part 112, released July 17, 2002. Added additional tanks to the University's inventory.	Clough Harbour & Associates LLP
February 2010	SPCC updated in accordance with 40 CFR Part 112, effective January 14, 2010. Updated University's tank inventory, regulation references, spill history and training/inspection procedures.	Clough Harbour & Associates LLP
February 2011	SPCC updated to include minor changes in tank inventory	Clough Harbour & Associates LLP
September 2015	SPCC updated to include changes in tank inventory, facility contacts, spill response procedures, and revised AST Regulations (9 VAC 25-91; effective November 1, 2015).	Draper Aden Associates
April 2016	Updated enrollment, removed Dan Patterson from facility contacts, added elevators to inspection form	Draper Aden Associates
November 2021 March 2022	Revised SPCC plan for 5 year update (added 6 ASTs - Tank ID#s: 36, 37, 38, 39, 40, 43). Removed one UST (Tank ID# 43).	Draper Aden Associates

TABLE OF CONTENTS

Licensed Professional Engineer Certification

Facility Management Approval

SPCC Plan Revisions Summary

1.0 Introduction
- 1.1 Applicability
- 1.2 SPCC Plan Elements
- 1.3 Location of SPCC Plan
- 1.4 Management Approval/PE Certification
- 1.5 Substantial Harm Criteria Certification
- 1.6 Plan Amendments and Revisions
- 1.7 Compliance with Other Regulations

2.0 Facility Identification
- 2.1 Facility Location
- 2.2 Facility Contacts
- 2.3 Facility Description
- 2.4 General Facility Layout
  - 2.4.1 Bulk Storage Layout
  - 2.4.2 Drainage System Layout

3.0 Bulk Oil Storage Inventory
- 3.1 Stationary Above-Ground Storage Tanks (ASTs)
  - 3.1.1 Emergency Backup Generator Sub-base ASTs
  - 3.1.2 Recreation Center Fire Pump AST
  - 3.1.3 Grounds Vehicle Bio-diesel Fuel AST
  - 3.1.4 Monticello Plant AST
- 3.2 Underground Storage Tanks (USTs)
  - 3.2.1 Swem Plant, Power Plant, and Law School USTs
  - 3.2.2 Facilities Maintenance Gasoline UST
- 3.3 Oil-Filled Electrical, Operating, & Manufacturing Equipment
  - 3.3.1 Hydraulically Operated Elevators
  - 3.3.2 Transformers
  - 3.3.3 Oil-Water Separators
- 3.4 Cooking Oils & Grease
- 3.5 Dedicated (On-site) Mobile Bulk Oil Storage Containers
- 3.6 Oil Storage in Containers with a Capacity of 55 Gallons or Greater (Other Than ASTs, USTs and Mobile Bulk Storage Containers
- 3.7 Non-Regulated Oil Storage Areas or Oil Handling Activities
- 3.8 Tank Truck Loading/Unloading Areas

4.0 Spill History & Spill Predictions
- 4.1 Spill History
- 4.2 Potential Spill Predictions, Volumes, Rates & Control

5.0 Containment Structures & Equipment
- 5.1 Stationary Aboveground Storage Tanks
  - 5.1.1 Emergency Backup Generator Sub-base ASTs
  - 5.1.2 Recreation Center Fire Pump AST
  - 5.1.3 Grounds Vehicle Diesel Fuel AST
  - 5.1.4 Monticello Plant AST
- 5.2 Underground Storage Tanks
  - 5.2.1 Power Plant, Swem Plant & Law School USTs
- 5.3 Oil-Filled Electrical, Operating, & Manufacturing Equipment
  - 5.3.1 Transformers
  - 5.3.2 Hydraulically-Operated Elevators
  - 5.3.3 Oil-Water Separators
- 5.4 Cooking Oils & Grease
- 5.5 Dedicated (On-site) Mobile Bulk Oil Storage Containers
- 5.6 Oil Storage in Containers with a Capacity of 55 Gallons or Greater (Other Than ASTs, USTs, and Mobile Bulk Storage Containers
- 5.7 Tank Truck Loading/Unloading Areas

6.0 Drainage From Oil Management Areas
- 6.1 Drainage from Diked Oil Storage Areas
- 6.2 Drainage from Undiked Oil Storage or Unloading Areas

7.0 Bulk Storage Tank Compatibility
- 7.1 General
- 7.2 Aboveground Storage Tanks & Containers
- 7.3 Underground Storage Tanks
- 7.4 Corrosion Protection
- 7.5 Inspections and Tests
- 7.6 Heating Coils
- 7.7 Overfill Prevention Systems
- 7.8 Effluent Treatment Facilities
- 7.9 Visible Discharges
- 7.10 Mobile and Portable Containers

8.0 Facility Oil Transfer Operations & Piping

9.0 Facility Tank Truck Unloading
- 9.1 Minimum Standard Operating Procedures
- 9.2 Measures to Prevent Vehicle Departure Prior to Disconnect
- 9.3 Secondary Containment Provisions for Tank Unloading Area

10.0 Inspections, Testing & Records
- 10.1 Routine Visual Inspection Program & Facility Management
  - 10.1.1 Monthly Comprehensive Inspections
- 10.2 Tank Testing
  - 10.2.1 AST Testing
  - 10.2.2 UST Testing
  - 10.2.3 Oil Storage Container Testing
- 10.3 Records

11.0 Facility Security
- 11.1 Campus Police
- 11.2 Fencing
- 11.3 Flow Valves and Starter Controls Locked
- 11.4 Loading/Unloading Connections Securely Capped
- 11.5 Lighting Adequate to Detect Spills

12.0 Personnel Training

13.0 Spill Response Procedures
- 13.1 Spill Response Equipment
- 13.2 Spill Response Procedures
- 13.3 Spills From Unknown Sources
- 13.4 Commitment of Manpower & Resources
- 13.5 Handling & Disposal of Recovered Materials
- 13.6 Spill Incident Reporting

14.0 Commonwealth of Virginia Rules, Regulations & Guidelines
- 14.1 Aboveground Storage Tanks (9 VAC 25-91)
- 14.2 Underground Storage Tanks (9 VAC 25-580)

LIST OF FIGURES

Figure 1-1 Site Location Map
Figure 2-1 Petroleum Storage Location Map
Figure 2-2a Hydraulically-Operated Elevator Location Map
Figure 2-2b Transformer Location Map
Figure 2-3 Storm Sewer Location Map

LIST OF TABLES

Table 3-1 Summary of Aboveground Storage Tanks
Table 3-2 Summary of Underground Storage Tanks
Table 3-3 Inventory of Hydraulic Elevators
Table 13-1 Spill Containment Equipment

LIST OF APPENDICES

Appendix A SPCC Rule Cross Reference
Appendix B Certification of the Applicability of the Substantial Harm Criteria Checklist
Appendix C Tank Registration Certificates
Appendix D Emergency Contact Information
Appendix E Spill History Information
Appendix F Spill Predictions
Appendix G DOT Regulations
Appendix H Typical Inspection & Maintenance Log Sheets
Appendix I Tank Testing Reports
Appendix J SPCC Training Plan Outline and Participant Record
Appendix K Initial Spill Information Form
Appendix L NRC Incident Reporting Form
Appendix M William & Mary 2018-2024 Six-Year Capital Plan (Future Planning)

LIST OF ACRONYMS & ABBREVIATIONS

AMSL	Above Mean Sea Level
API	American Petroleum Institute
AST	Aboveground Storage Tank
CFR	Code of Federal Regulations
DAA	Draper Aden Associates
DEM	Department of Emergency Management
DOT	Department of Transportation
EH&S	Environmental Health & Safety
EPA	Environmental Protection Agency
FRP	Fiberglass-Reinforced Plastic
GPD	Gallons per Day
MSDS	Material Safety Data Sheets
ODCP	Oil Discharge Contingency Plan
OWS	Oil-Water Separator
PCB	Polychlorinated Biphenyls
PREP	Pollution Response Program
PSI	Pounds per Square-Inch
SPCC	Spill Prevention, Control, and Countermeasures
US	United States
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VAC	Virginia Administrative Code
VADEQ	Virginia Department of Environmental Quality
VIMS	Virginia Institute of Marine Science

1.0 INTRODUCTION

This document provides a plan for the prevention and control of oil spills, and for countermeasures to respond to spills of oil on the William & Mary (University) campus, including the Main Campus, the Law School campus, School of Education campus, and the Dillard Complex. This plan does not pertain to the University's Virginia Institute of Marine Science (VIMS) Campus. The plan describes how the University is in compliance with federal and state requirements for oil pollution prevention.

The intent of this SPCC Plan is to form a comprehensive spill prevention plan that:

- Identifies and assesses the physical layout of the facility and areas where oil is handled, stored, and managed.
- Describes discharge and drainage controls, including containment structures, equipment, and/or procedures for the control of a discharge.
- Describes countermeasures for the discovery of an oil discharge, proposed responses to a discharge, and proposed cleanup measures and reporting requirements.

1.1 APPLICABILITY

In accordance with the requirements of Title 40 of the Code of Federal Regulations (CFR) Part 112, the United States Environmental Protection Agency (U.S. EPA) requires Spill Prevention, Control and Countermeasure (SPCC) Plans to be prepared by the owner or operator of a facility engaged in the storage, transfer, distribution, or consumption of oil and oil products in quantities above regulated thresholds and those facilities that could reasonably be expected to discharge oil to navigable waters. Oil is defined as "oil of any kind or in any form, including but not limited to fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil" (40 CFR 112.2), as amended July 17, 2002.

The quantity thresholds for SPCC plan applicability are as follows:

- Total facility aboveground storage capacity of more than **1,320 gallons**. For the aboveground storage capacity, only containers of oil with a capacity of **55 gallons or greater** are counted (40 CFR 112.1(d)(2)(ii)).

- Total facility underground storage capacity of more than **42,000 gallons**.

Based upon the U.S. EPA's broad definition of a navigable waterway and because the groundwater beneath virtually any facility will ultimately reach a navigable water, almost all facilities exceeding the oil storage thresholds must develop and implement a SPCC Plan. Since William & Mary exceeds the U.S. EPA thresholds, William & Mary is subject to the requirements of 40 CFR 112 and needs to have and implement a SPCC Plan.

1.2 SPCC PLAN ELEMENTS

This SPCC plan has been prepared in accordance with the most recent SPCC requirements of 40 CFR Part 112. The final rule included compliance dates in §112.3 for preparing, amending, and implementing SPCC Plans. The original compliance dates were amended on January 9, 2003, again on April 17, 2003, a third time on August 11, 2004, a fourth time on February 17, 2006, a fifth time on May 16, 2007, a sixth time on June 19, 2009, and most recently on October 18, 2011 (for farms). Facilities must amend or prepare, and implement SPCC Plans by the compliance date in accordance with revisions to the SPCC rule promulgated since 2002. The compliance dates for SPCC facilities starting operations on, or before, August 16, 2002, must maintain its existing SPCC Plan and amend and implement the amended SPCC Plan no later than November 10, 2011. The University falls into this category (original SPCC Plan prepared February 2000).

The form provided in Appendix A provides a cross-reference between the requirements of 40 CFR Part 112 and the respective sections and/or page numbers of the SPCC Plan where each required element has been addressed. For each requirement of 40 CFR Part 112 that is listed on the form, the referenced SPCC Plan section provides a discussion of the facility's conformance with the listed requirement.

1.3 LOCATION OF SPCC PLAN

A complete original copy of the William & Mary SPCC Plan will be maintained with the Director of Environmental Health and Safety (EH&S) and will be made available upon request for the U.S. EPA Regional Administrator and the Virginia Department of Environmental Quality (VADEQ) for review during normal working hours. In addition, copies of the SPCC plan will be retained by the Facility Management Office, be available in hard copy in the Main Utility Plant, and be available on the

University web site. The Main Utility Plant is manned 24 hours a day. This SPCC Plan will be made available to the Regional Administrator for review during normal working hours.

1.4 MANAGEMENT APPROVAL/PE CERTIFICATION

A facility that stores less than 10,000 gallons in aggregate aboveground oil storage capacity and meets oil discharge history criteria may self-certify their SPCC Plan. This option is not available to the University because their aggregate aboveground oil storage capacity is greater than 10,000 gallons; therefore, this plan has been reviewed by a Professional Engineer (PE). A signature sheet for the Licensed Professional Engineer certification is inserted following the Cover Sheet.

A Management Approval signature sheet has also been inserted following the Cover Sheet.

1.5 SUBSTANTIAL HARM CRITERIA CERTIFICATION

40 CFR Section 112.20(e) of the facility response plan regulation requires that all facilities regulated by the Oil Pollution Prevention Regulation (40 CFR 112) conduct an initial screening to determine whether they are required to develop a facility response plan. The completed screening checklist and certification that the William & Mary does not pose a substantial harm as defined in the regulations is included in Appendix B.

1.6 PLAN AMENDMENTS AND REVISIONS

As set forth in 40 CFR 112.5(a), this SPCC Plan should be appropriately amended and recertified whenever required by the by U.S. EPA Regional Administrator, whenever applicable regulations are revised, or whenever there is a change in the facility design, construction, operation or maintenance that materially affects its potential for the discharge of oil into or upon the navigable water of the United States or adjoining shorelines. Examples of changes that may require amendment of the SPCC Plan include, but are not limited to:

- Commissioning or decommissioning of containers
- Replacement, reconstruction, or movement of containers
- Replacement, reconstruction or installation of piping systems
- Construction or demolition that might alter secondary containment structures
- Changes of product or service

- Revision of standard operation or maintenance procedures at the facility

Amendments to the Plan made to address these kinds of changes are referred to as technical amendments, and must be certified by a professional engineer; however, non-technical amendments (changes in telephone numbers or spill prevention personnel) can be made by the facility owner and/or operator. Records of these amendments shall be maintained in this section.

Notwithstanding any amendments to the SPCC plan that are required as a result of changes at the facility, a complete review and evaluation of the SPCC plan should be completed at least once every five years, in accordance with 40 CFR 112.5(b). As a result of this review, the SPCC plan should be amended to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge from the facility. Five-year reviews should be documented using the SPCC Plan Review and Evaluation form located following the Cover Sheet of this Plan.

Any required amendments to the SPCC Plan will be completed within six months and will be implemented as soon as possible, but not later than six months following preparation of the amendment. Each required (i.e. technical) SPCC Plan amendment will be the reviewed and certified by a Licensed Professional Engineer and approved by facility management.

Scheduled reviews and Plan amendments are recorded in the SPCC Plan Revisions Summary on page *v*. This log will be completed as a result of the review, even if no changes/amendments are made. Signature sheets for SPCC Plan Review and Evaluation are inserted following the Cover Sheet. These signature sheets should be filled out and appended to the SPCC Plan any time a review is performed. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur by **November 2026**, and the amendment must occur by **May 2027**.

1.7 COMPLIANCE WITH OTHER REGULATIONS

This SPCC Plan has been developed to comply with the federal SPCC requirements found in 40 CFR Part112. There are currently no general SPCC requirements promulgated by the Commonwealth of Virginia. Aboveground storage tanks (ASTs) are regulated in Virginia under Title 9 of the Virginia Administrative Code (VAC), Chapter 91 of the Water Control Board (Agency 25), and underground

storage tanks (USTs) are regulated under Chapter 580. Compliance with these requirements, including the need to develop an oil discharge contingency plan, is discussed in Section 14.0. The SPCC Plan may also assist in complying with other regulatory requirements. However, the SPCC Plan is not intended to fully comply with the requirements of any regulation other than 40 CFR Part 112.

2.0 FACILITY IDENTIFICATION

2.1 FACILITY LOCATION

The University is located in the City of Williamsburg, James City County, Virginia immediately west of historic Williamsburg, as shown on **Figure 1-1**. All operations involving the storage, handling, and use of oil products is managed by the University's Facilities Management office. The Facilities Management office is located at:

William & Mary
115 Grigsby Drive
Williamsburg, Virginia 23185
Latitude: 37°-16'-8" N
Longitude: 76°-42'-31" W

2.2 FACILITY CONTACTS

The following primary facility contact is the designated person accountable for oil spill prevention:

Name: Ms. Teresa Belback; Director, Environmental Health & Safety
Contact Number: (757) 221-2146

The following backup facility contacts are the designated persons accountable for oil spill prevention in the absence of the SPCC Coordinator:

Name: Mr. Larry Jackson; Central Utilities Supervisor, Plant Emergencies & Alternate Emergency Coordinator
Contact Number: (757) 221-1256

Name: Ms. Megan Beagle; Officer, Environmental Health & Safety
Contact Number: (757) 221-2288

A list of emergency contacts, in addition to the facility contacts listed above, familiar with the contents of the SPCC Plan, is provided in Appendix D. This list includes the name and telephone numbers of the Emergency Coordinator and the assigned, designated alternates.

2.3 FACILITY DESCRIPTION

William & Mary is a state-assisted, four-year, co-educational, residential university. Approximately 6,300 full-time undergraduates and 2,200 graduate students attend the university from the 50 states and approximately 80 foreign countries. Schools include Arts and Sciences, Business Administration, Education, Law, and Virginia Institute of Marine Science. This SPCC Plan pertains only to the Main Campus, the Law School campus, School of Education, and the Dillard Complex. This plan does not address any oil containers and/or tanks that may be located at the VIMS campus.

Founded in 1693, William & Mary is the second oldest university in the nation. Originally, the University consisted of three buildings: the Main Building, or the Sir Christopher Wren Building; Brafferton; and the President's house. These structures, which form a triangle in the University Yard, have been restored to their original 18th century appearance through the joint efforts of the University, John D. Rockefeller, Jr., and the Colonial Williamsburg Foundation.

In addition to that section known familiarly as "Ancient Campus," the University grounds include other architectural and functional areas. The "Modern Campus," of Georgian design, complements the colonial courtyard. "New Campus," built chiefly in the 1960s, is of conservative, contemporary design. Patterned brick walks help maintain continuity from the University's 300-year-old grounds to its most recent construction.

Based upon the United States Geological Survey, 7.5-minute series topographic map for the Williamsburg, Virginia area, the elevations across the Main Campus range from approximately from approximately 25 feet above mean sea level (AMSL) on the western side of the campus (adjacent to Lake Matoaka) to approximately 90 feet on the eastern end of the campus. While there are small drainage channels bisecting the campus and an extensive stormwater sewer system present on the campus, the overall grades on the Main campus slope downward from east to west. The areas west of Lake Matoaka are undeveloped, but drain eastward towards the Lake. The School of Education campus has an elevation ranging from approximately 50 to 75 feet AMSL and slopes southwest towards an unnamed tributary to College Creek, which flows into Matoaka Lake.

The Law School campus has an elevation ranging from approximately 50 to 80 feet AMSL and slopes eastward towards Paper Mill Creek. The Dillard Complex has an elevation of approximately 100 feet AMSL and is relatively flat. Neither facility/area is contiguous to a surface water body.

The operations conducted on the campus results in the need to store oil at various locations on the campus. These include distillate/fuel oils used for generating steam and heat, diesel fuel for emergency backup generators, gasoline for refueling campus vehicles, hydraulic oils for hydraulic-lift elevators systems, dielectric fluids in transformers, and waste grease from food preparation. The volume of oil stored on the campus exceeds both the 1,320-gallon aboveground and the 42,000 gallon underground threshold values presented in the 40 CFR Part 112 regulations.

2.4 GENERAL FACILITY LAYOUT

2.4.1 Bulk Storage Layout

Figure 2-1 identifies the location of the bulk aboveground storage tanks (ASTs) and the underground storage tanks (USTs) on the Main, School of Education, Law School, and Dillard Complex campuses. Drum storage, oil water separators, and grease traps/cooking oil storage locations have also been identified on **Figure 2-1**. **Figure 2-2a** identifies the locations of hydraulically-operated elevators. However, **Figure 2-2a** only depicts the buildings that contain hydraulically operated elevators and is not intended to identify the actual location of the elevator systems within the buildings. **Figure 2-2b** identifies the locations of the oil-filled electrical transformers located on the campus. **Figure 2-3** identifies the location of the University's storm sewer system.

2.4.2 Drainage System Layout

Figure 2-1 depicts the topography of the William & Mary Main Campus, School of Education, Law School, and Dillard Complex, as well as the surface water bodies. All stormwater runoff is collected in a series of catch basins located across the campus, a majority of which are located within paved areas. Stormwater conveyances are shown on **Figure 2-3**.

The stormwater collected for the central portion of the Main Campus drains into a small pond behind Landrum Hall. The pond drains into a small, unnamed stream that bisects the campus and discharges into Ice-House Cove and Lake Matoaka. Lake Matoaka flows into College Creek and Paper Mill Creek flows into the James River. Runoff from the School of Education campus discharges towards an unnamed tributary to College Creek, which flows into Matoaka Lake. Runoff from the Law School campus discharges to Paper Mill Creek and College Creek. Stormwater runoff occurring on the Dillard Complex drains to Powhatan Creek.

3.0 BULK OIL STORAGE INVENTORY

The following sections provide a summary of active storage tanks, container storage areas, and electrical transformers at the William & Mary. Tanks registered with VADEQ are identified in the University's current PBS Registration Certificate, included in Appendix C.

3.1 STATIONARY ABOVE-GROUND STORAGE TANKS (ASTs)

Table 3-1 provides an inventory of active stationary ASTs, including the location, capacity and contents of each tank. The total stationary AST capacity at the William & Mary facility is approximately ***39,629 gallons*** in 35 tanks. Approximately 22,429 gallons of diesel fuel is associated with 31 emergency backup generators on the campus.

3.1.1 Emergency Backup Generator Sub-base ASTs

Except for the Parking Deck and William & Mary Hall generators, the Rec Center fire pump AST, the Grounds diesel AST, the Monticello Plant and West Utility Plant ASTs, the remaining permanent ASTs on the campus are sub-base tanks associated with self-contained emergency generator systems. These sub-base tanks consist of double-wall steel tanks, typically located below each generator unit, but elevated off of the ground surface.

The Parking Deck Generator is connected to a single-wall 1,200-gallon tank (Tank No. 11) within secondary containment. The William & Mary Hall generator is connected to a 500-gallon double-wall tank (Tank No. 14), which provides secondary containment.

3.1.2 Recreation Center Fire Pump AST

Tank No. 21 is a 50-gallon single-wall tank that supplies fuel for the building's fire pump and is located within a dedicated room in the Recreations Center. Concrete walls, floor and curbing provide secondary containment for Tank No. 21.

3.1.3 Grounds Vehicle Bio-diesel Fuel AST

Tank No. 22 is a 600-gallon double-walled steel tank, which supplies fuel for Grounds Department vehicles.

3.1.4 Monticello Plant AST

Tank No. 27 is a 4,000-gallon single-wall tank located within a steel closed-top dike system that supplies fuel oil for the School of Education boilers and emergency generator.

3.1.5 West Utility Plant AST

Tank No. 39 is a 10,000-gallon double-walled tank located within a steel closed-top dike system that supplies fuel oil for the West Utility Plant and emergency generator.

3.2 UNDERGROUND STORAGE TANKS (USTs)

Table 3-2 provides an inventory of the active USTs maintained at the William & Mary facility, including the location, capacity and contents of the tank. The total underground storage tank capacity at the William & Mary facility is ***63,000 gallons*** in a total of five tanks.

In accordance with 40 CFR 280.12 and 9 VAC 25-580-10, the term "underground storage tank" does not include tanks that are used for storing heating oil (No. 1 through No. 6) for consumption on the premises where stored; therefore, these tanks are no longer required to meet the UST notification, release detection, spill prevention, overfill prevention, corrosion protection, closure, and financial responsibility requirements. However, tanks not subject to 40 CFR 280 are still subject to the SPCC rule in 40 CFR 112. In addition, spills and releases from these tanks would still need to be reported and cleaned up in accordance with Article 11 of the State Water Control Law, and a release from these tanks could represent a significant liability for the University.

3.2.1 Swem Plant (No. 29 & No. 30) Power Plant (No. 31) & Law School USTs (No. 32)

The two 15,000-gallon USTs at the Swem Plant, the 20,000-gallon UST at the Power Plant and the 5,000-gallon UST at the Law School are double-walled fiberglass tanks equipped with interstitial monitoring. All four tanks store No. 2 fuel oil. The tanks meet the requirements as documented in the facility's tank compliance records, which are maintained by the Director, Operations & Maintenance. The tank manufacturer certified tank installation and the tank installation contractor provided the tank notification as required by 9 VAC 25-580-70. Since these tanks are not subject to 40 CFR Part 280, they are subject to SPCC regulations.

3.2.2 Facilities Maintenance Gasoline UST (No. 47)

In January 2000, Facilities Management installed a new 8,000-gallon underground gasoline storage tank behind the Facilities Maintenance Building. The tank meets the requirements as documented in the facility's tank compliance records, which are maintained by the Director, Operations & Maintenance. The tank manufacturer certified tank installation and the tank installation contractor provided the tank notification as required by 9 VAC 25-580-70.

This tank is a double-walled fiberglass-reinforced plastic tank with interstitial monitoring for leak detection. The tank has an automatic shutdown system used during transfer of fuel that shuts down the transfer if the tank reaches 95 percent capacity. Additionally, the tank has a release detection system consisting of a vapor monitoring system. The tank excavation was backfilled with pea gravel and the vapor monitoring device is designed to detect any significant release of gasoline above background conditions. Because this tank is subject to 40 CFR Part 280, it is excluded from SPCC regulations; however, the location of Tank No. 47 is shown on **Figure 2-1**.

3.3 OIL-FILLED ELECTRICAL, OPERATING, & MANUFACTURING EQUIPMENT

3.3.1 Hydraulically-Operated Elevators

Elevators are present in many of the buildings on the William & Mary Campus. Some of the elevator units are cable-hoist type elevator systems, but the majority of the elevators utilize hydraulic lift type systems with an approximate hydraulic oil reservoir capacity ranging from 50 to 310 gallons each. Some of hydraulic reservoirs have been placed in equipment rooms with recessed floors or concrete

curbs that would provide secondary containment in the event of a release. The general locations of hydraulically-operated elevators are identified on **Figure 2-2a**.

Although not all of the hydraulic reservoirs have been placed in rooms that would provide secondary containment, it is likely that any releases from these reservoirs would be contained inside the buildings. No floor drains are located immediately adjacent to the referenced reservoirs and campus officials have reported that all floor drains are to be isolated from the sanitary and storm sewer systems. **Table 3-3** summarizes the hydraulic lift type elevator systems present at the William & Mary Campus.

3.3.2 Transformers

There is typically one electrical transformer associated with each of the large buildings on the William & Mary campus, as shown on **Figure 2-2b**. There are numerous electrical transformers on the William & Mary campus ranging in rating from 75 to 3,750 kVA.

Each of the transformers is owned and operated by Dominion Virginia Power. The transformers cannot be accessed by the University and thus the total dielectric fluid (oil) reservoir capacity of the transformers is unknown. As a conservative measure, a capacity of greater than 55-gallons is assumed for each transformer until further notice by Dominion Virginia Power. The locations are shown on **Figure 2-2b**. It is noted that Dominion Virginia Power is responsible for these transformers. The William & Mary's responsibility, through Facilities Management, is notifying Dominion Virginia Power of a spill or leak. Phone numbers are provided in Appendix D.

3.3.3 Oil-Water Separators

There are three oil-water separators in use at the Facility. Two were installed in 2010 at the south end of the Facilities Maintenance Shops. Both are constructed of plastic; one is for equipment washdown and the other is behind the gasoline pump. The third separator is located at the Parking Deck at Ukrop Way and is used to collect oil from parked vehicles and is steel. Independent contractors perform oil water separator cleaning services, which include pumping out liquid from the separator tanks, cleaning out sludge and solids from bottoms, rinsing out filter packs and cleaning baffle systems, jetting the lines coming into the separators, reassemble and recharge the systems,

and dispose of waste materials in accordance with state and federal regulations. The general locations of three oil-water separators are identified on **Figure 2-1**.

3.4 COOKING OILS & GREASE

Cooking oils and grease are stored in small volume containers (less than 55-gallons) at various indoor locations at William & Mary, with the exception of the following grease storage containers provided on **Table 3-4**. This table provides an inventory of active grease traps, including the location and capacity of each tank. The total stationary cooking oils and grease capacity at the William & Mary facility is approximately 3,145 gallons.

These traps are monitored and pumped out as needed by an independent contractor. SPCC procedures will be implemented in event of a spill of cooking oil or grease. No significant food preparation activities are performed at the other coffee shops or convenience stores located on the campus. The locations of cooking oil storage and grease traps are identified on **Figure 2-1**.

3.5 DEDICATED (ON-SITE) MOBILE BULK OIL STORAGE CONTAINERS

There are no dedicated on-site mobile bulk oil storage containers at the Facility.

3.6 OIL STORAGE IN CONTAINERS WITH A CAPACITY OF 55 GALLONS OR GREATER (OTHER THAN ASTs, USTs AND MOBILE BULK STORAGE CONTAINERS

There is a used oil storage area located behind the Trades Shop. This area consists of up to two (2) 55-gallon drums, in which used oil is stored before being removed for a service company. The drum(s) are maintained on spill pallets designed to contain a discharge.

3.7 NON-REGULATED OIL STORAGE AREAS OR OIL HANDLING ACTIVITIES

There are limited oil container storage areas on the William & Mary Campus. Vehicle maintenance is not performed on campus. Grounds maintenance is performed by the University; however, there are no storage tanks or containers 55-gallons or greater in capacity, associated with ground maintenance activities. Other oil storage on the Campus that is exempt from 40 CFR Part 112 includes, but is not limited to:

- Small containers of waste oil, which are stored in a polyethylene (resistant to ultra-violet light) enclosure that is vented and equipped with secondary containment. All containers in the enclosure are closed to prevent accidental spillage and the enclosure is locked to prevent potential tampering.
- Any aboveground storage tank/container with a capacity of less than 55 gallons of oil, such as quarts of motor oil.
- Emergency spill and overfill tanks that are expeditiously emptied after use;
- Cooking oil and grease containers less than 55-gallons in capacity, which are present at the following food preparation locations on campus:
    - Center Court – Sadler Center, 2nd Floor (new)
    - Commons Dining Center
    - Lodge 1 – Sadler Center, Lower Level
    - Market Place Café – Campus Center
    - Several mobile food vendors service the campus (most mobile food vendors do not generate enough cooking oil and grease to warrant an on-board grease trap);
- These units are estimated to have a total capacity of approximately 90 gallons; however, the grease capacity of each is estimated to be approximately 30 gallons; and
- Onboard oil containers used to power the movement of a vehicle

There are no additional oil storage areas or oil handling activities currently associated with the William & Mary campus. There are currently no bulk oil storage containers with a capacity in excess of 55-gallons at the Dillard Complex.

Discussion. According to a 1971 Memorandum of Understanding between the Department of Transportation (DOT) and the Environmental Protection Agency, EPA regulates non-transportation-related facilities and DOT regulates transportation-related facilities. Mobile vendors (i.e., food trucks, fuel delivery trucks) that operate solely within the confines of a non-transportation-related facility subject to the SPCC rule must comply with the general secondary containment requirements during all periods of operation.

3.8 TANK TRUCK LOADING/UNLOADING AREAS

There are no permanently diked or bermed unloading areas on the William & Mary campus. The unloading areas associated with the bulk storage tanks are located in the paved parking lots adjacent to each tank. Portable spill containment systems utilized by William & Mary maintenance personnel during fuel deliveries are maintained at the Main Utility Plant, West Utility Plant, Facilities Management, Swem Plant, School of Education Plant, Law School, and Recreational Sports facility.

4.0 SPILL HISTORY & SPILL PREDICTIONS

This section provides a discussion of historic releases at the facility and the potential for future releases. The worst-case discharge has been evaluated in accordance with 9 VAC 25-91-170.

4.1 SPILL HISTORY

40 CFR Part 112.2 defines a *spill event* as follows: "*Spill event* means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR part 110." Section 13.7 details the information that must be documented in the event of a release. There have been no petroleum-related releases at William & Mary during the past three years (2019 – 2022), with the following exception:

- **Swem Library Diesel Spill**

  At about 0815 hours on Monday, June 14, 2021, a contractor of William & Mary Facilities Management discovered a diesel leak in the mechanical equipment room in the basement of the Swem Library located at 400 Landrum Drive, Williamsburg, Virginia. Approximately 163 gallons of diesel spilled over 349 SF of the basement. No product reached floor drains. The root cause was a failed pressure switch for fuel pumps. Facilities Management personnel were able to immediately respond by turning off valves at the location of the leak and applying oil dry and utilizing absorbent pads. Pollution Report Number: #304097

Reports and other information regarding future releases shall be included in Appendix E.

4.2 POTENTIAL SPILL PREDICTIONS, VOLUMES, RATES & CONTROL

Table F-1 in Appendix F summarizes potential spill predictions from existing tanks, electrical transformers, applicable container storage areas, and hydraulic oil reservoirs located at the University. The predictions listed in **Table F-1** represent the worst-case scenario for each potential type of spill.

The table is organized according to the type of storage container. The aboveground storage tanks are listed first, followed by the container storage areas, then the transformer locations, the hydraulic reservoirs, and finally grease storage containers. The table lists the applicable storage volume, the type of secondary containment system (if applicable), the likely mode of container or unloading equipment failure, the potential spill quantity and rate, the probable direction of flow, and the spill prevention practices and procedures that apply to the storage system.

5.0 CONTAINMENT STRUCTURES & EQUIPMENT

5.1 STATIONARY ABOVEGROUND STORAGE TANKS

5.1.1 Emergency Backup Generator Sub-base ASTs

All but two of the 30 self-contained emergency generator systems are equipped with sub-base ASTs. All of these sub-base tanks consist of double-wall steel tanks, typically located below each generator unit, but elevated off of the ground surface and therefore, comply with the secondary containment requirements of 40 CFR Part 112.7.

The Parking Deck Generator is connected to an AST (Tank No. 11) that is contained within secondary containment that meets the requirements of 40 CFR Part 112.7. Tank No. 14 is a 500 gallon double-wall tank that provides fuel to run the William & Mary Hall Generator and that complies with the secondary containment requirements of 40 CFR Part 112.7.

5.1.2 Recreation Center Fire Pump AST

Tank No. 21 is a 50-gallon single-wall tank that supplies fuel for the building's fire pump. The tank is located within a dedicated room in the Recreations Center with no floor drains. Concrete walls, floor and curbing provide secondary containment for Tank No. 21 in compliance with 40 CFR Part 112.7.

5.1.3 Grounds Vehicle Diesel Fuel AST

Tank No. 22 is a 600-gallon double-walled steel tank, which supplies fuel for Grounds Department vehicles. The double-wall construction provides secondary containment in accordance with 40 CFR Part 112.7.

5.1.4 Monticello Plant AST

Tank No. 27 is a 4,000-gallon single-walled tank that is located within a closed-top dike system. The tank supplies No. 2 fuel oil to the Monticello Plant. The closed-top dike system provides secondary containment while also restricting precipitation from accumulating in the dike system.

5.1.5 West Utility Plant AST

Tank No. 39 is a 10,000-gallon double-walled tank. The tank supplies No. 2 fuel oil to the West Utility Plant.

5.2 UNDERGROUND STORAGE TANKS

5.2.1 Power Plant, Swem Plant, Law School, & Facilities Maintenance USTs

The 20,000-gallon UST at the Power Plant, the two 15,000-gallon USTs at the Swem Plant, the 5,000-gallon UST at the Law School, and the 8,000-gallon UST behind the Facilities Maintenance Building are fiberglass, double-wall tanks equipped with interstitial monitoring. The outer shell of the tanks combined with the interstitial monitoring will contain any leaks from the interior tank wall and the associated monitoring system will notify campus officials of the leak.

5.3 OIL-FILLED ELECTRICAL, OPERATING, & MANUFACTURING EQUIPMENT

5.3.1 Transformers

Each of the facility's electrical transformers on the William & Mary campus contain dielectric fluid. It is noted that all transformers are owned and operated by Dominion Virginia Power. The University's responsibility is notifying Dominion Virginia Power in the event of a spill and/or leak; phone numbers are provided in Appendix D. If a spill occurs from a Dominion Virginia Power-owned transformer at the University, Dominion Virginia Power will respond using the controls and countermeasures identified in their own SPCC Plan. The William & Mary's responsibility, through the AVP Facilities Management, is notifying Dominion Virginia Power.

5.3.2 Hydraulically-Operated Elevators

As previously mentioned, there are a number of hydraulic lift elevators located on campus. All of the units are maintained indoors and on concrete floors, which are sufficiently impervious to contain a spill, and which are considered to provide general secondary containment for the most likely spill associated with these oil reservoirs. In addition, there are no floor drains in the immediate vicinity

of these hydraulic oil reservoirs. The hydraulic reservoirs for the elevators are maintained and regularly inspected by an outside service contractor.

5.3.3 Oil-Water Separators

There are three oil-water separators in use at the Facility. See section 3.3.3.

5.4 COOKING OILS & GREASE

There are six grease traps in use at the Facility. See section 3.4. None of the grease traps are equipped with leak detection or corrosion protection equipment. Three of the grease traps are non-metallic tanks (either concrete or plastic). The other three grease traps are constructed of steel.

5.5 DEDICATED (ON-SITE) MOBILE BULK OIL STORAGE CONTAINERS

There are no dedicated on-site mobile bulk oil storage containers at the Facility.

5.6 OIL STORAGE IN CONTAINERS WITH A CAPACITY OF 55 GALLONS OR GREATER (OTHER THAN ASTs, USTs, AND MOBILE BULK STORAGE CONTAINERS

The used oil storage area located behind the Trades Shop consists of up to two (2) 55-gallon drums that are maintained on spill pallets designed to retain a discharge.

5.7 TANK TRUCK LOADING/UNLOADING AREAS

Refer to Section 9.3 of this plan for secondary containment provisions for the bulk storage tank unloading areas.

6.0 DRAINAGE FROM OIL MANAGEMENT AREAS

6.1 DRAINAGE FROM DIKED OIL STORAGE AREAS

There are no permanently diked or curbed oil storage areas on the William & Mary campus.

6.2 DRAINAGE FROM UNDIKED OIL STORAGE OR UNLOADING AREAS

The facility's oil truck unloading areas (e.g. the Power Plant areas) and a number of small oil storage tanks are undiked. Drainage from these areas may contact oil that has accumulated or may be present in the areas at the time of precipitation. The potential for oil to accumulate or otherwise be present in these areas may arise from leakage or spillage during active truck unloading operations. As described in Section 9, facility personnel continuously monitor all truck unloading activities. To address the potential for any discharged oil to enter the campus storm sewer system, catch basin covers are in place and portable containment berms erected prior to and throughout unloading operations by facility personnel.

In the event that oil leakage or spillage occurs during the active transfer operation, facility personnel will immediately implement oil spill response procedures (Section 13). Oil spill booms and/or absorbent materials will be used to control the oil and/or drainage that may contact the oil. Containment of the area will be provided by the placement of the oil spill booms or equivalent measures to divert oil away from local drainage courses and structures. Oil absorbent materials will be used to clean up and remove the released oil. Final cleanup and housekeeping measures will be provided to the extent necessary to ensure that no residual oil remains that could adversely impact subsequent drainage from the area. Disposal of cleaning materials and spilled oil will be coordinated through the EH&S office.

7.0 BULK STORAGE TANK COMPATIBILITY

7.1 GENERAL

Each container installation is engineered or updated in accordance with good engineering practices to avoid discharges.

The facility conducts a comprehensive visual inspection of the oil storage areas at a minimum monthly frequency, as detailed in Section 10 below. In addition to the routine inspections (Appendix H), the facility will inspect/test each aboveground container on a regular schedule for potential integrity problems and whenever repairs are made as detailed in Section 10 below.

7.2 ABOVEGROUND STORAGE TANKS & CONTAINERS

William & Mary has limited as-built construction files available for most of the tanks on the campus, with the exception of some of the sub-base ASTs on the emergency backup generators; however, all ASTs and containers on the campus are steel tanks. The materials and methods of construction are compatible with the materials stored in each of the tanks, and the conditions of storage such as pressure and temperature. The tanks are equipped with an appropriate containment system. The secondary containment material and type of construction is sufficiently impervious to contain oil leakage.

7.3 UNDERGROUND STORAGE TANKS

The USTs at the Swem Plant, the Power Plant, the Law School, and the gasoline UST behind the Facilities Maintenance are fiberglass encapsulated tanks that are compatible with the products stored in them. The tanks are equipped with an appropriate containment system. The secondary containment material and type of construction is sufficiently impervious to contain oil leakage.

7.4 CORROSION PROTECTION

This section is not applicable since there are no completely buried, partially buried or bunkered metallic storage tanks at this facility.

7.5 INSPECTIONS AND TESTS

The SPCC rule requires aboveground bulk storage containers be tested for integrity on a regular schedule and whenever material repairs are made to the tank; however, the frequency and type of testing must take into account container size and design.

Comprehensive visual inspections of the storage containers and the container's supports and foundations are conducted monthly. In addition, the areas around the container are inspected for signs of deterioration, discharges, or accumulation of oil. Records of inspections and tests are kept and compared to previous records, for the purpose of noting deteriorating conditions. Inspections and tests are discussed further in Section 10.

7.6 HEATING COILS

The facility does not utilize internal heating coils that would have the potential to be impacted by oil.

7.7 OVERFILL PREVENTION SYSTEMS

Overfill prevention is considered to be systems, procedures, or devices used to prevent liquid in ASTs from running over or spilling out of the AST during the filling process. Each of the facility's oil containers that require routine filling is either equipped with a direct vision gauge or the tank is manually gauged prior to filling.

A person who is physically present and in control of a shutoff device during the entire tank filling process is an acceptable procedure to achieve overfill protection. A William & Mary employee is present to monitor gauges and the overall filling of bulk storage containers as discussed in Section 9.0.

7.8 EFFLUENT TREATMENT FACILITIES

The Facility does not maintain any effluent treatment facilities.

7.9 VISIBLE DISCHARGES

Visible discharges resulting in a loss of oil from containers, including accumulations of oil in diked areas, are promptly removed and the cause for the discharge corrected. Such corrections are documented on the monthly tank inspection form.

7.10 MOBILE AND PORTABLE CONTAINERS

There are several 55-gallon oil storage containers utilized at the facility. The materials and methods of construction are compatible with the materials stored in each of the drums, and the conditions of storage such as pressure and temperature. The drums are maintained either on spill pallets or in a polyethylene storage shed designed to provide secondary containment. The secondary containment material and type of construction is sufficiently impervious to contain oil leakage.

There are no dedicated on-site mobile bulk oil storage containers at the Facility.

8.0 FACILITY OIL TRANSFER OPERATIONS & PIPING

All heating oil (No.2) is stored in tanks inside or adjacent to the buildings where the oil is consumed. The fill ports typically consist of a short steel fill pipe located at the top of each exterior tank. The steel piping is not wrapped with any protection and is readily visible for inspection for deterioration or leakage. None of the fill lines have secondary containment. The product supply lines for the Power Plant are double-walled. The product supply piping on most of the smaller ASTs consists of copper tubing. There is no corrosion protection on the copper piping, but piping is visually inspected monthly for signs of corrosion or leaks.

Most of the emergency backup generator tanks consist of sub-base tanks mounted immediately below the generator units. The fill ports are located immediately on top of these tanks and copper supply lines transfer the fuel from the tanks to the actual generator motors. The supply lines have no secondary containment or corrosion protection, but are small in size, relatively short in length and are internal to the generator systems.

All aboveground valves, pipelines and related appurtenances are visually inspected monthly (Section 10.0).

9.0 FACILITY TANK TRUCK UNLOADING

9.1 MINIMUM STANDARD OPERATING PROCEDURES

Oil products are delivered to William & Mary by tanker trucks. The University requires all tanker truck drivers to comply with U.S. Department of Transportation (DOT) regulations in 49 CFR 177.834 and 177.837. Copies of these DOT regulations are included in Appendix G. Before ordering additional petroleum products, William & Mary personnel sound the tank to be filled to the nearest 0.25-inch using a staff gauge or tank mounted remote gauge. The following procedures are followed for all product deliveries.

1. Appropriate facility personnel are notified when a tank truck-unloading event will take place, prior to initiation.

2. Upon arrival to the campus, the tank truck driver reports to the Facilities Management Power Plant. Staff in the Power Plant will notify appropriate personnel of the arrival and the truck will be escorted to the appropriate unloading location.

3. No smoking is allowed during the active tank truck unloading event. Fire and all sources of ignition are kept away from the unloading area at all times.

4. The fuel truck operator and the University employee providing oversight for the transfer determine the amount of fuel to be delivered prior to unloading by reading the site gauge on the tank or manually gauging the tank.

5. Tank truck unloading operations are conducted only in the area specifically designated for that purpose. All portable catch basin cover(s) must be in place and containment berms erected by facility personnel, as necessary, prior to initiation of oil transfer.

6. The facility employee ensures that drip pans or buckets or oil absorbent pads are placed beneath all hose connections that may be prone to leakage, prior to initiation of the tank truck unloading event. Absorbent pads/mats are placed beneath the fill port prior to fuel unloading, where appropriate.

7. The truck engine is shut off. Unless the truck engine is used for operation of the transfer pump, no flammable oil material is unloaded while the engine is running.

8. The truck hand brake is set throughout the duration of the tank truck unloading event. The facility employee checks to ensure that active wheel blockage (wheel chocks) is firmly set in front of each tire prior to initiation of the active unloading event, to preclude motion of the tank truck during the unloading event.

9. Prior to filling and departure of any tank truck, the lowermost drain and all outlets of the tanker must be closely examined for leakage, and, if necessary, tightened, adjusted, or replaced to minimize the potential for liquid leakage while in transit.

10. The fill cap to the tank is removed.

11. Each tank truck unloading event is conducted under continuous surveillance and monitoring by the truck driver and by an appropriate facility employee. These personnel will take immediate actions to stop the flow of oil when the working capacity of the receiving tank (designated as approximately 95 percent maximum of the tank capacity) has been reached or in the event that an equipment failure or emergency occurs. Throughout the active transfer process, each person (truck driver and employee) remains alert and retains an unobstructed view of the truck, delivery hoses and storage tank, to the maximum extent practicable.

12. In cases where the fill port is remote from the tank, Facilities Management personnel will be stationed next to the tank being filled while the tank truck operator will be stationed at the fill port. Both persons will be provided a two-way radio to communicate and the radios will be tested prior to unloading. The person reading the product level gauge on the tank will instruct the truck driver when to stop fuel unloading, which is designated at 95 percent maximum of the tank capacity.

13. Neither attendant may leave his/her position once fuel delivery commences.

14. Once the product delivery is complete, the drain/transfer valve on the truck is closed and the transfer line is fully drained back to the tank truck or tank prior to disconnecting the transfer line.

15. Any leakage or spillage arising from the completed unloading event is fully cleaned up with oil absorbent material and is properly disposed of.

16. Fill ports are capped when not in use.

9.2 MEASURES TO PREVENT VEHICLE DEPARTURE PRIOR TO DISCONNECT

Except for a break-away hose on the Facilities Maintenance gasoline tank, there are currently no permanent measures at the William & Mary facility to prevent product supply vehicles from departing prior to disconnection of flexible or fixed oil transfer lines; however, as previously indicated, the wheels are chocked on all delivery trucks during unloading operations and are not removed until all product transfers are complete. In addition, transfer operators are verbally warned

at entry to the facility to not endanger aboveground piping or other oil transfer operations at the facility.

9.3 SECONDARY CONTAINMENT PROVISIONS FOR TANK UNLOADING AREA

The potential for oil to accumulate or otherwise be present in the unloading areas will arise only from leakage or spillage occurring during the active truck unloading operation, particularly during periods of precipitation. As previously described in Section 9.1, the truck unloading activity is continuously monitored by facility personnel. Portable catch basin covers are moved in place and portable containment berms are installed around the delivery trucks prior to initiation of oil transfer, as necessary.

In the event that oil leakage or spillage occurs during an active transfer operation, facility personnel will immediately implement the spill response procedures (refer to Section 13). Oil spill booms and/or absorbent materials will be used to control the oil and/or drainage that may contact the oil. Additional secondary containment of the immediate area will be provided by prompt placement of oil spill booms or by implementation of equivalent measures. Oil spill booms or equivalent measures will be used to either directly contain the oil and/or to divert the oil away from drainage courses and structures. Oil absorbent materials will be used to clean up and remove the released oil.

Final cleanup and housekeeping measures will be used to the extent necessary to ensure that no residual oil remains that could contact and adversely impact subsequent drainage from the area. Information regarding the type and quantity of oil spill booms, oil absorbent materials and other spill response materials and equipment that is maintained onsite by the facility, as well as the onsite storage facilities for these materials, is provided in Section 13.

10.0 INSPECTIONS, TESTING & RECORDS

10.1 ROUTINE VISUAL INSPECTION PROGRAM & FACILITY MANAGEMENT

The facility's oil storage and oil handling areas are visually inspected on a regular basis, as detailed below. In general, all oil storage and oil handling areas are visually inspected for signs of equipment deterioration and leaks that might cause a spill and/or discharge. The more detailed inspection components applicable to the facility's oil storage and handling are indicated on the inspection form included as Appendix H.

Any deficiencies identified during the visual inspection program are promptly repaired; deficient equipment is drained of oil and taken offline if necessary, to accommodate the required repairs. Documentation of adequate response measures for all deficiencies identified during the visual inspection is maintained together with the completed inspection logs.

In addition to response measures provided as a result of the inspection program, at all times, discharges which are observed to result in a loss of oil from any container, including, but not limited to seams, gaskets, piping, pumps, valves, and bolts are promptly corrected.

The facility's routine preventative maintenance program for oil equipment includes performing regularly scheduled equipment maintenance, conducting routine inspections, maintaining appropriate types and quantities of spill response equipment and materials and maintaining good housekeeping conditions as described in the following sections.

10.1.1 Monthly Comprehensive Inspections

At a frequency of no less than one time per month, inspections are made by appropriately trained personnel. The more detailed inspection components applicable to the facility's oil storage and handling are indicated on the inspection form (Appendix H). Completed Inspection Forms are kept on file by the Director, Operations & Maintenance.

ASTs

Visual inspections of all facility ASTs are conducted during the monthly comprehensive inspections. The visual inspections include the following:

- A complete walk-through of the facility ASTs to ensure that no hazardous condition exists.
- An inspection of the ground surface for signs of leakage, spillage, or stained or discolored soils.
- A check of the secondary containment structures for excessive accumulation of water and to ensure that manual drain valves are secured.
- A visual inspection of the exterior tank shell to look for signs of leakage or damage.
- An evaluation of the condition of the aboveground storage tank and appurtenances.

USTs

Visual inspections of all facility USTs are conducted during the monthly comprehensive inspections. The visual inspections include the following:

- Inspection of the tank fill ports and vents to ensure they are in good condition.
- Inspection of the ground surface around the tanks and unloading areas to look for evidence of spills, such as stained ground surfaces.
- Inspection of the tank and fill port areas to ensure they are free of high grass, weeds, and debris.
- Inspection of the fill ports to ensure there is no spillage in the fill port spill boxes and to verify that the fill ports are secured.
- Monitoring for leaks using the electronic interstitial monitoring system.
- Inspection of tank gauges and leak detection systems to ensure they are operational.

Operational Equipment

Visual inspections of the oil-filled transformers and the hydraulic reservoirs associated with elevator systems are conducted during the quarterly comprehensive inspections. The visual inspections include the following:

- A complete walk-through of oil-filled operational equipment on campus that is greater than 55-gallons in capacity, to ensure that no hazardous condition exists.

- An inspection of the surface beneath the equipment for signs of leakage, spillage, or stained floors.
- A visual inspection of the reservoir shell to look for signs of leakage or damage.
- An evaluation of the condition of the appurtenances associated with each piece of operational equipment.

10.2 TANK TESTING

In addition to the monthly comprehensive inspections noted above, periodic testing consisting of visual inspections are required. Periodic integrity testing is not performed at this facility as it meets the requirements for "*equivalent environmental protection*" as further discussed in Section 10.2.1.

In accordance with 9 VAC 25-580-160, tank tightness testing is performed on all ***regulated*** USTs at the campus at least once every five years. Regulated USTs at this facility include:

- Tank ID No. 47 (Facilities Maintenance / 8,000-gallons / gasoline)

10.2.1 AST Testing

40 CFR 112.7(a) (2) allows for deviations from the substantive requirements of the SPCC rule provided that "*equivalent environmental protection*" is provided through alternative measures. Based on a letter from USEPA to the Petroleum Marketers Association of America (consult http:www.epa.gov/oilspill/), tank integrity testing can generally be waived for small tanks (i.e., less than 30,000 gallons) provided:

- the tanks are well-designed shop-built containers
- appropriate visual inspection is frequently performed (***at least monthly*** per EPA guidance)
- the tank is not in direct contact with soil (therefore reducing the potential for corrosion)
- the tank is elevated (allowing visual inspection of the bottom)

The ASTs at the facility meet these criteria and have been determined to have been constructed in such manner that provides "*equivalent environmental protection*." The requirement for integrity testing, therefore, is not applicable.

The ASTs may be tested in accordance with following procedures established by the Steel Tank Institute (STI) SP001 inspection standard:

- SP001 indicates that for tanks of capacity ***0-1,100 gallons***, periodic inspection by owner is sufficient.
- SP001 further indicates that for tanks of capacity ***1,101-5,000 gallons*** in contact with the ground or concrete slab, formal external inspection (by certified inspector) and leak testing should be performed at least every ***10 years***.
- SP001 further indicates that for tanks of capacity ***5,001-30,000 gallons*** in contact with the ground or concrete slab, formal external inspection (by certified inspector) and leak testing should be performed at least every ***20 years***.

An authorized storage tank inspector should determine the exact requirements of the testing regimen for this facility's tanks.

Note: Oil-filled equipment is not a bulk storage container and, therefore, NOT subject to the integrity testing requirements of the SPCC rule.

Records of regular maintenance, inspections, and re-inspections, which are maintained by the Director, Operations & Maintenance. The most recent AST pressure/vacuum testing results have been included in Appendix I. As indicated by the testing data, all of the tanks tested passed the hydrostatic testing. A number of generators on the campus were not tested because they are self-contained units with no fittings on the tanks to conduct pressure testing.

10.2.2 UST Testing

The USTs located at the SWEM Library, the Law Library, and Power Plant are all fiberglass-reinforced plastic tanks. there are no USTs on the campus with cathodic corrosion protection systems; therefore, the requirements of 9 VAC 25-580-90 are not applicable.

In accordance with 9 VAC 25-580-140, UST systems must also be monitored at least every 30 days for releases using one of the following methods:

- Monthly readings plus or minus deliveries
- Automatic tank gauging.
- Vapor monitoring within the soil gas of the excavation zone around the tank.
- Groundwater monitoring using monitoring wells adjacent to the tank.

- Interstitial monitoring between the primary tank and secondary (outer) barrier.
- Other methods approved by VADEQ.

All of the fiberglass clad tanks at William & Mary are double-walled tanks with interstitial monitoring. In addition, the UST behind the Facilities Maintenance has a release detection system consisting of a vapor monitoring system. The tank excavation was backfilled with pea gravel and the vapor monitoring device is designed to detect any significant release of gasoline.

In accordance with 9 VAC 25-580-160, tank tightness testing is performed on all ***regulated*** USTs at the campus at least once every five years. Regulated USTs at this facility include:

- Tank ID No. 47 (Facilities Maintenance / 8,000-gallons / gasoline)

A copy of the most recent tank-testing results are included in Appendix I.

Note. In accordance with 40 CFR 280.12 and 9 VAC 25-580-10, the term "underground storage tank" does not include tanks that are used for storing heating oil for consumption on the premises where stored. Tank tightness testing is not required for the following "*unregulated*" USTs:

- Tank ID Nos. 29, 30 (Swem Plant / 30,000-gallons / No. 2 Fuel Oil = Heating Oil)
- Tank ID No. 31 (Power Plant / 20,000-gallons / No. 2 Fuel Oil = Heating Oil)
- Tank ID No. 32 (Law School / 20,000-gallons / No. 2 Fuel Oil = Heating Oil)

10.2.3 Oil Storage Container Testing

William & Mary does not conduct integrity testing on oil storage containers since these containers are inspected visually on a regular basis, they are placed on impervious surfaces that facilitate immediate detection of leaks, and are stored indoors off the floor to reduce the potential for corrosion and deterioration of the containers.

10.3 RECORDS

The following records are maintained by the University for a minimum period of three years as part of this SPCC plan:

- Documentation of employee training in the SPCC plan.
- Completed inspection sheets for the weekly and monthly visual inspection program.
- Documentation of major repairs and/or upgrades made to any AST, UST or secondary containment structure, as provided in response to deficiencies identified by the daily and weekly visual inspection programs.

Tank certifications and manufacturer information are also maintained on the premises. In addition, reports on equipment testing and leak detection mechanisms as required by state statute or regulation are also kept on file by the Director, Operations & Maintenance (with the exception of training records, which are maintained by the EH&S office). In the incidence of any spill or leak event, a report describing the event will be kept on permanent file. The report describes circumstances of the discharge, response and comments on the response, volume of discharge, and agencies and contact people notified.

Records kept in accordance with 9 VAC 25-91-150 include the following:

- Records relating to required measurements and inventory of oil at the facility.
- Records relating to required tank/pipe testing.
- Records relating to spill events and other discharges of oil from the facility.
- Supporting documentation for developed contingency plans.
- Records for implementation and monitoring of leak detection.
- Records relating to training of individuals.
- Records required to be kept by statute or regulation of the State Water Control Board.

11.0 FACILITY SECURITY

11.1 CAMPUS POLICE

The William & Mary Police Department and the Williamsburg Police Department provide security. The William & Mary Police Department provides emergency services twenty-four hours per day, seven days per week, and every day of the year. The Department is located on Ukrop Way and includes one chief, three lieutenants, four sergeants, one investigator, and fifteen patrol officers. In an emergency, the Campus Police can be reached by two-way radio and from any facility telephone by dialing 911 or (757) 221-4596 for non-emergencies. In addition, there are several emergency phones located across the campus that can be used to report an emergency or spill. Several of these phones are part of the Blue Light Phone System and provided a direct line to the Campus Police.

Campus Police conduct nightly walk-through inspections of each campus building and provide patrols twenty-four hours per day. Any oil leaks or spills discovered during a patrol are reported to the William & Mary Police Department dispatch office which is staffed 24 hours per day, seven days per week. The police can obtain necessary assistance from Campus plumbers and electricians who are on call twenty-four hours per day to assist with piping leaks and transformer problems. If necessary, Campus Police will contact the Emergency Coordinators identified in Appendix D and the local Fire Department to obtain assistance, as indicated in Section 13.

11.2 FENCING

William & Mary is an open campus facility. Facility personnel are on site during normal business hours and frequently monitor oil storage areas indoors and outdoors. While academic and support buildings are unlocked during normal business hours, there are a number of outside tanks located on the campus that may be subject to vandals. The greatest potential for vandalism is with the aboveground storage tanks; however, except for the Parking Garage generator, all of the other ASTs are part of enclosed, lockable generator housings. While vandalism of these tanks is possible, the entire campus is patrolled around the clock and lighting in the vicinity of the tanks is sufficient to inhibit vandalism and to assist in the prompt identification of spills. Vandalism has not been a problem on the William & Mary campus to date.

11.3 FLOW VALVES AND STARTER CONTROLS LOCKED

Master flow and drain valves and any other valves permitting direct outward flow of an oil container's contents to the surface remain in the closed position when in non-operating or non-standby status.

The starter control on each oil pump at the facility is accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

11.4 LOADING/UNLOADING CONNECTIONS SECURELY CAPPED

The loading/unloading connections of facility piping are securely capped when not in service or when in standby service for an extended time. This practice also applies to piping that is emptied of liquid content.

11.5 LIGHTING ADEQUATE TO DETECT SPILLS

Facility lighting is provided to facilitate the following activities:

- Transfer of oil from tanker trucks to bulk storage tanks;
- Discovery of discharges occurring during hours of darkness by operating personnel, if present; and
- Prevention of discharges occurring through acts of vandalism.

12.0 PERSONNEL TRAINING

Facilities Management personnel involved in the handling of oil are properly trained in general facility operations, location of oil storage tanks and container storage areas, applicable oil pollution control laws, rules and regulations, routine handling of products (e.g. loading and unloading procedures), operation and management of equipment (particularly the Power Plant equipment) to prevent discharges, discharge (spill) emergency response procedures and protocols, and the contents and requirements of this SPCC Plan. At a minimum, the training highlights the following:

- General facility operations
- Purpose of the SPCC Plan and applicable pollution control rules and regulations
- Contents of the SPCC Plan
- Hazards of accidental spills
- The operation and maintenance of equipment to prevent discharges
- Inspection procedures
- Avoiding/preventing spills
- Identification of potential spill areas and materials
- Chain of command for spill reporting
- Review of any past spills equipment failures, component malfunctions, associated clean-up efforts, and any recently developed precautionary measures taken during the previous year
- Housekeeping
- Location of oil storage tanks and container storage areas as well as unloading areas
- Unloading procedures
- Potential drainage pathways from each oil storage tank and container storage area
- Spill control and personnel protective equipment
- Health and safety requirements
- Spill response and clean-up procedures
- Reporting procedures

Training is provided by the facility employee accountable for oil spill prevention at the facility (Section 2.2) or his/her designee. The Director of Environmental Health & Safety is responsible for ensuring all personnel are kept current with their training requirements.

Discharge prevention briefings/refresher training is provided on an annual basis or whenever a change is made to the contents of the initial training program, and is documented in facility records for all employees involved with the handling of oil. New employees involved with the handling of oil receive training within two weeks of their initial hire date. All training sessions are documented and the documentation is retained as part of this SPCC Plan for a minimum of three years. Appendix J provides the typical outline of the training provided to facility employees as well as a Participant Record.

13.0 SPILL RESPONSE PROCEDURES

For the purpose of establishing appropriate response procedures, this SPCC Plan classifies discharges as either "minor" or "major", depending on the volume, characteristics of the material released, and the location of the spill. For a petroleum release, a minor discharge is considered to be 25 gallons or less, and a major discharge is considered to be greater than 25 gallons. A list of Emergency Contacts is provided in Appendix D. The list is also posted at prominent locations throughout the facility. Response procedures are outlined in detail below.

It is noted that if a spill occurs from a Dominion Energy-owned transformer at William & Mary, Dominion Energy will respond using their own controls and countermeasures. Facility personnel are not trained to respond to emergencies related to the transformers and, due to safety concerns, Dominion Energy takes complete responsibility for discharges from its transformers. In the event of a release from a Dominion Energy transformer, the Emergency Coordinator or his designee should contact Dominion Energy. The following Dominion Energy reporting number is used for transformer leaks or for any power outage or equipment failure: 1-866-591-0157. The caller is required to supply the transformer number stenciled on the side of the transformer at the time of the call.

The purpose of this section is to provide general guidelines for responding to oil spills. Of primary concern is the prevention of damage to public health, the health and safety of response personnel, and the environment. Site security and legal liability are also of concern. William & Mary's spill equipment and spill response procedures are specified below.

13.1 SPILL RESPONSE EQUIPMENT

Storage areas for spill containment equipment are located in the Facility Management Fueling Station, Main Utility Plant, West Utility Plant, Swem Plant, School of Education Plant, Law School, and Recreation Sports facility. Table 13-1 lists the minimum inventory of equipment maintained by the William & Mary and where each piece of equipment is stored.

13.2 SPILL RESPONSE PROCEDURES

The following procedures are to be implemented by designated personnel upon discovery of or when first responding to an oil leak or spill (including all oils and fuels). William & Mary personnel are not permitted to attempt to contain or cleanup a spill unless they are certain that the material released is a non-hazardous substance.

1. Assess the scene from a safe distance.

2. Call the William & Mary Police Department at 911 or (757) 221-4596 (if not already notified) and inform them of the pertinent facts related to the spill event, including but not limited to the following:
    - Name and/or badge number
    - Location of the spill or incident
    - Immediately hazardous conditions or threats (e.g. fire, explosion, etc.)
    - Injured persons (if any)
    - Estimated quantity of material spilled
    - Type of material spilled (known or suspected)
    - Spill characteristics (e.g. odor, color, solid/liquid/gas, flow direction, etc.)

3. Request backup if necessary and evacuate all persons from the spill area. If the release occurred indoors, activate the pull-box alarms as necessary.

4. The William & Mary Police Department will then call the Emergency Coordinators identified in Appendix D, in order, until someone is reached to lead the spill response effort. The William & Mary Police Department will also call Emergency Response (Fire Department) for assistance if necessary, or if the surrounding community is affected.

5. Evaluate exposures to response personnel, public, and environment.

6. Secure the spill site and cordon off the spill area. Check for immediate threats or people in danger and assess the site for fire, health, and safety hazards. Remove non-emergency response personnel from the area of release.

7. Keep automobiles and other potential ignition sources a safe distance away from the area of release.

8. If it is safe to attempt to contain and clean up the spill, personal protective equipment, including, gloves, boots, coveralls, eye protection, etc. should be donned first.

9. If appropriate, valves should be closed, pumps should be shut off, equipment should be shutdown, etc.

10. Contain the spill to prevent oil from spreading and entering storm drains, floor drains, unpaved surfaces, and surface waters. Use available spill control materials, such as absorbent booms, absorbent pads, Speedi-Dry, sand/earth, peat moss, drain covers, drain plugs, or any other suitable barriers to contain the spill. See Table 13-1 for an inventory and location of spill response equipment. Also, erect oil absorbent booms at the outfall point of the storm sewer to surface water bodies, if the oil release reaches a storm sewer system.

11. Stay at the spill area to meet spill response personnel and/or fire department, as well as maintain security of the spill area.

12. Clean all surfaces contacted by oil and properly dispose of any remaining oil, or oil-stained soil.

13. Contact an emergency response/spill cleanup contractor identified in Appendix D, as necessary, for assistance with spill containment and cleanup.

14. Call the VADEQ Department of Emergency Management's (DEM's) Pollution Response Program (PREP) coordinator at (800) 468-8892 within 2 hours of discovery of the spill.

13.3 SPILLS FROM UNKNOWN SOURCES

In some situations, an accidental discharge can be discovered without knowing the source of the spill. An example of this would be someone reporting oil sheen on a water body, such as Lake Matoaka along the west side of the William & Mary campus. In such an instance, the following spill alert procedures will be implemented.

1. Call the William & Mary Police Department at 911 or (757) 221-4596 and inform them of the pertinent facts related to the spill event (i.e., location, extent, immediate threats). Campus Police will then call the Emergency Coordinators identified in Section 2.2, in order, until someone is reached to lead the spill response effort. The William & Mary Police Department will also call Emergency Response (Fire Department) for assistance if necessary (Appendix D).

2. Contain the spill as much as possible. For example, if oil discharge is discovered in a surface water body, use an oil absorbent boom to surround the affected area.

3. Trace the spill either upstream or up-gradient to locate the source. Look for culverts and drainage swales that may be conveying the oil, areas of sloped ground from which there may be a seep of oil, or storm sewer catch basins, grates, or pipes that may have evidence of oil.

4. If the oil cannot be traced back to a definite source, a systematic check of all tanks on site should be performed (see items 5 through 8 below), while some response team members stay at the site of the detected spill to begin cleanup and continue containment.

5. Notify staff at the Power Plant and have them perform a check on the facilities at that location.

6. Begin checking ASTs closest to where the spill was detected. Examine the ground and tanks for staining, odors, or corrosion. A map showing tank locations is provided on Figure 2-1.

7. After checking all ASTs, check areas around and downhill of the USTs, starting with those closest to the detected discharge.

8. Check parking areas that have storm drainage that discharges to the affected area.

9. If the source of the release is found, implement the Spill Response Plan previously outlined in Section 13.2.

10. If cause of the release is not found and the discharge is continuing, response and containment should continue, and the 911 dispatch should be contacted. Appropriate authorities should also be contacted by the Emergency Coordinator or designated alternate (VADEQ and National Response Center as discussed in Section 13.7). Inventory logs for all tanks on site should be reviewed immediately.

11. If cause of the release is not found and the discharge appears to have stopped, inventory checks of all potential sources on-site should be performed.

13.4 COMMITMENT OF MANPOWER & RESOURCES

Spill response at the University will require the manual application of absorbent materials and other equipment to prevent product from reaching the facility surface drainage and waters; particularly in areas where storage containers are not within a dedicated secondary containment structure (e.g., transformers, waste vegetable-oil/grease bins, etc.). Public Safety personnel and other applicable University personnel shall be committed to spill prevention activities to support this plan, with the exception that no person shall be subjected to unsafe conditions.

13.5 HANDLING & DISPOSAL OF RECOVERED MATERIALS

All materials recovered from oil spill response measures will be appropriately containerized (e.g. leak-proof containers) and labeled as to contents, date and nature of organization, etc. The University has one or more hazardous waste/petroleum clean-up contractors, upon which it can call for emergency response and remediation of hazardous material spills. The Emergency Coordinator will determine which contractor, if any, shall be notified to assist with the response/clean-up activities. These contractors are listed in Appendix D of this plan.

In the event that the material is determined to be a regulated hazardous waste, it will be managed and disposed of in accordance with the appropriate requirements of 9VAC-20-60, Sections 420 through 500, including manifesting of the hazardous waste. In the event that the recovered material is determined to be non-hazardous, it will be managed as part of the facility's routine non-hazardous waste stream. The William & Mary contracts for spill cleanup (for significant releases) and for final disposal of absorbent materials and other contaminated materials.

William & Mary EH&S office (757) 221-2146 or (757) 221-2288 shall be notified prior to disposal of recovered materials.

13.6 SPILL INCIDENT REPORTING

A list of Emergency Contacts, such as the agencies to be contacted in the event of an emergency, is included in Appendix D. Appendix D is meant for reference use only since names and numbers may change over time. The list shall be updated any time names or numbers change. The list is maintained onsite and is posted outdoors in the oil storage locations and transfer areas.

A. Campus Reporting Requirements

An on-site written spill report shall be completed for <u>any</u> spill incident (Appendix K). A "spill incident" is defined as having occurred when the spill material:

1. Flows to a floor drain or sump not specifically designated for the spilled material,

Or

2. Otherwise escapes the normal means of confinement (e.g., ruptured reservoir or container).

Call the Emergency Coordinator to report any spill incident. It is important to note the following information when reporting a spill:

1. Name of the facility.
2. Name of personnel providing this information.
3. Location and phone number of the facility.
4. Date and time of the discharge.
5. Location of the discharge.
6. Type and estimated quantity of material discharged.
7. The source of the discharge.
8. The cause of such discharge(s), including a failure analysis of the system or subsystem in which the failure(s) occurred.
9. A description of all media affected.
10. Whether the material escaped the campus boundary
11. Corrective actions and countermeasures that have been taken, including a description of equipment repairs and replacements necessary to stop, remove, and mitigate the effects of the discharge.
12. A description of any damages or injuries caused by the discharge.
13. Additional preventative measures that the facility has taken or contemplated to minimize the possibility of recurrence.
14. Whether an evacuation may be needed.
15. The names of individuals and/or organization who have also been contacted.
16. The names of the individuals and/or agencies who have responded to the scene
17. Closure date for the spill (if applicable)

A spill report (i.e., a computer aided dispatch entry or an automated records management system report) must be completed for every spill incident that occurs on-site, regardless of size or apparent significance. Copies of all spill reports are maintained by EH&S office in a dedicated file.

In response to any spill, local facility personnel must immediately notify the SPCC Coordinator (or alternate listed in Section 2.2), who will then contact the reporting agency and complete the Initial Spill Information Form provided in Appendix K, if required. Regulatory agencies should not be contacted until and unless directed to do so by the Emergency Coordinator.

B. Federal Spill Reporting Requirements

The Emergency Coordinator (or designee) shall immediately report a spill of any quantity of oil into water, including spills in areas providing potential navigation to water, to the National Response Center (NRC) duty officer in Washington, D.C. The toll-free number for the NRC is listed in Appendix D. When making a telephone report to the NRC, the caller should be prepared to provide the information listed on the NRC Incident Report Form. Any spill reported to the NRC shall be documented on an Incident Report Form (Appendix L).

In the event that the facility has discharged more than 1,000 gallons of oil in a single discharge, or discharged more than 42 gallons (1 barrel) of oil in each of two discharges within any twelve month period, the facility must submit the information listed in Section 13.7.A as well as the following information to the Regional Administrator of the U.S. EPA within 60 days from the time that the facility exceeds these discharge thresholds:

1. Maximum storage or handling capacity of the facility and normal daily throughput.

2. An adequate description of the facility, including maps, flow diagrams and topographical maps, as necessary.

3. Such other information as the Regional Administrator may reasonably require pertinent to this SPCC Plan or discharge.

The information shall be submitted to the Regional Administrator at the following address:

US EPA Region 3
1650 Arch Street (3PM52)
Philadelphia, PA 19103-2029

Following submittal of this information, the facility will appropriately amend this SPCC Plan as may be specified by the Regional Administrator, in accordance with the requirements and procedures of 40 CFR Section 112.4(f).

C. Virginia Spill Reporting Requirements

The Emergency Coordinator (or designee) will contact VADEQ within twenty-four hours if the oil spill has caused a surface water sheen or if the oil spill **exceeds 25 gallons** (the reportable quantity identified in 9 VAC 25-580-220), or the reportable quantity under 40 CFR 302. In the case of a spill that is less than 25 gallons, the University must still report the spill to VADEQ regardless of the size of the release unless the following criteria are met:

- The spill is contained and under control.
- The spill has not and will not reach the State's waterways.
- The spill is cleaned up within two hours of discovery.

Petroleum spills must be reported to the VADEQ DEM's Pollution Response Program (PREP) coordinator at the phone number identified in Appendix D. The information listed in Section 13.7.A should be documented and provided to the VADEQ for each reportable spill. When calling VADEQ to report a spill, be sure to obtain the individual's name answering the call and the identification number assigned to the spill.

All written spill reports and correspondence with the VADEQ shall be submitted to the following addresses:

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, Virginia 23462
Attn: Ms. Meghan Kies, Pollution Response Coordinator

Virginia Department of Environmental Quality
Petroleum Program
P.O. Box 10009
Richmond, Virginia 23240-0009

D. Local Spill Reporting Requirements

If the spill is obviously endangering the public health or welfare through traffic hazard, explosion, fire, noxious or toxic gases, water contamination, or other means, the William & Mary Police Department or Emergency Coordinator will notify local emergency responders by dialing 911. The local emergency agencies include the Williamsburg Fire Department and the Williamsburg Police Department. If necessary, the Williamsburg Fire Department will contact Newport News Regional Hazardous Materials Response Team for additional assistance.

14.0 COMMONWEALTH OF VIRGINIA RULES, REGULATIONS & GUIDELINES

This plan is designed to comply with federal SPCC requirements found in 40 CFR Part 112. There are currently no general SPCC requirements promulgated by the Commonwealth of Virginia. Petroleum storage facilities are regulated in Virginia under the regulations listed below.

It should be noted that while DAA evaluated the University's general compliance relative to the cited regulations and addressed general compliance in the preamble to this report, it is recommended that the University review the regulations relative to the on-site tank facilities and implement a compliance program, which is necessary to ensure compliance with the cited regulatory requirements.

14.1 ABOVEGROUND STORAGE TANKS (9 VAC 25-91)

Part I – Program Administration

- §10 definitions specify that the term "aboveground storage tank" means any one or combination of tanks, including pipes, used to contain an accumulation of oil at atmospheric pressure, and the volume of which, including the volume of the pipes, is more than ninety percent above the surface of the ground.
- §20(B)(1) indicates that since the William & Mary has an aggregate aboveground storage capacity greater than 1,320 gallons of oil, all tanks with an aboveground storage capacity greater than 660 gallons are subject to the Registration, Notification and Closure Requirements specified in 9 VAC 25-91-100. ***Storage of oil that is excluded from regulation in 9 VAC 25-91-30 A is not included when calculating the aggregate aboveground storage capacity.***
- §20(B)(2) indicates that facilities with an aggregate aboveground storage capacity of 25,000 gallons or greater of oil are subject to the Pollution Prevention Requirements specified in 9 VAC 25-91-130. Since the William & Mary has an aggregate aboveground storage capacity of less than 25,000 gallons, the University is not subject to Part III of this Chapter. ***Storage of oil that is excluded from regulation in 9 VAC 25-91-30 A is not included when calculating the aggregate aboveground storage capacity.***
- §20(B)(3) indicates that facilities with an aggregate aboveground storage capacity of 25,000 gallons or greater of oil are subject to Oil Discharge Contingency Plan (ODCP) Requirements specified in 9 VAC 25-91-170. Since the William & Mary has an aggregate aboveground storage capacity of less than 25,000 gallons, the University is not subject to Part IV of this Chapter. ***Storage of oil that is excluded from regulation in 9 VAC 25-91-30 A is not included when calculating the aggregate aboveground storage capacity.***

- §30(A)(3) indicates that ASTs with a storage capacity of 660 gallons or less of oil are exempt from the requirements of 9 VAC 25-91. This section exempts all ASTs on the campus except for Tank Nos. 11, 12, 15, 20, 23, 26 and 27.
- §30(A)(14) indicates that equipment or machinery that contains oil for operational purposes, such as hydraulic systems, are exempt from the requirements of 9 VAC 25-91.
- ***§30(A)(15) indicates that an AST that forms an integral part (cannot be readily detached or removed) of the equipment or machinery and the contents of the AST are solely used by the attached equipment or machinery (e.g., fuel tank affixed into the frame of an emergency generator), are exempt from the requirements of 9 VAC 25-91.***
- §30(A)(17) indicates that oil-filled electrical equipment, such a transformers, are exempt from the requirements of 9 VAC 25-91.
- §30(A)(19) indicates that oil-water separators, are exempt from the requirements of 9 VAC 25-91.
- §40(C) requires that previously registered facilities must resubmit a registration form every five years.
- §40(D) requires that the facility operator submit the ODCP to VADEQ and receive approval prior to the commencement of facility operations and significant updates are made.

Part II – Registration, Notification & Closure Requirements

- §100(A) requires that all ASTs with a capacity of more than 660 gallons be registered with VADEQ.

  Note. Equipment or machinery that contains oil for operational purposes (i.e., belly tanks) are not regulated under the Virginia AST Regulations. These tanks do not require registration with DEQ.

- §100(F) requires that the owner or a duly authorized representative of the facility renew the registration once every five years or whenever title to the facility or ASTs is transferred.
- §110(A) request the facility representative to notify VADEQ of any AST upgrades, major repairs, replacements, or changes in service within thirty days following the modifications.
- §120 specifies the requirements for closing ASTs.

Part III – Pollution Prevention Requirements

- The University has an aggregate aboveground storage capacity for its regulated ASTs of less than 25,000 gallons of oil, and therefore, is exempt from 9 VAC 25-91, Sections 130, 140, 150 and 160.

  Note. Equipment or machinery that contains oil for operational purposes (i.e., belly tanks) are not regulated under the Virginia AST Regulations. These tanks should not be counted towards the facility aggregate capacity.

Part IV – Oil Discharge Contingency Plan (ODCP) Requirements

- The University has an aggregate aboveground storage capacity for its regulated ASTs of less than 25,000 gallons of oil, and therefore, is exempt from 9 VAC 25-91, Section 170.

  Note. Equipment or machinery that contains oil for operational purposes (i.e., belly tanks) are not regulated under the Virginia AST Regulations. These tanks should not be counted towards the facility aggregate capacity.

Part V – Groundwater Characterization Study & Well Monitoring Requirements

- The University has an aggregate storage capacity of less than one million gallons of oil, and therefore, is exempt from 9 VAC 25-91, Sections 180, 190, 200 and 210.

14.2 UNDERGROUND STORAGE TANKS (9 VAC 25-580)

Part I – Definitions, Applicability, and Interim Prohibition

- §10 definitions specify that the term "underground storage tank" does not include any tank used for storing heating oil for consumption on the premises where the oil is stored. Therefore, all of the USTs on the William & Mary campus are exempt from the requirements of this chapter.
- §20(B)(4) indicates that all USTs with a capacity of 110 gallons or less are also exempt from this chapter.

Part II – UST Systems: Design, Construction, Installation, and Notification

- §50 provides performance standards for new UST systems; however, the purpose of this document is not to summarize design requirements for new or proposed USTs.
- §60 defines the requirements for upgrading existing UST systems. By December 22, 1998, <u>all</u> existing UST systems must comply with the new UST system performance

standards listed in 9 VAC 25-580-50, meet the upgrading requirements of Section 60, or be closed.

- §70 list the notification requirements for installing new tanks, modifying existing tanks, and closing tanks.

Part III – General Operating Requirements

- §80 requires owners and operator to ensure that releases due to spilling or overfilling do not occur by ensuring that the volume available in the tanks is greater than the volume of product to be transferred into the tanks.
- §90 defines the operation and maintenance requirements for UST corrosion protection systems. However, most of the requirements pertain to cathodic protection systems, which are not applicable to the University since as USTs are constructed of fiberglass-reinforced plastic.
- §100 requires that all USTs be made or line with materials that are compatible with the substance stored in them. All of the fiberglass tanks at the University are considered compatible with the oil products stored in them.
- §110 lists the types of repairs that are allowed by VADEQ for specific types of USTs.
- §120 defines the UST reporting requirements (notification for new UST systems, reports of releases, corrective actions, etc.) and record keeping requirements (operation of corrosion protection equipment, UST repairs, compliance with release detection requirements, site investigation results, etc.).

Part IV – Release Detection

- §130 requires that all tanks installed on or prior to December 22, 1998 have some sort of release detection equipment installed no later than 1993 and that all tanks installed after December 22, 1998 be equipped with release detection equipment upon installation. All USTs on the William & Mary campus are equipped with leak detection equipment consisting of interstitial monitoring devices.
- §140 defines the monitoring requirements for USTs and product piping.
- §160 describes the methods that may be utilized for release detection from USTs. The University's compliance with this section is discussed in Section 13 of this document.
- §170 defines the requirements for release detection for product piping.
- §180 defines the record keeping requirements for UST release detection compliance.

Part V – Release Reporting, Investigation, and Confirmation

- §190 requires that VADEQ be notified within 24 hours of a suspected release. Suspected releases may include the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface waters. They may also include erratic behavior of dispensing equipment, sudden loss of product in an UST, etc.
- §210 describes the methods to investigate and confirm a suspected release.
- §220 describes the requirements for reporting and cleanup of spills and overfills. The University's compliance with this section is described in Section 13.7 of this document.

Part VI – Release Response and Corrective Action for UST Systems

- §230 through §300 describe the procedures for initial responses to releases, site characterization requirements, free product removal requirements, the need to develop a corrective action plan, and public participation requirements.

Part VII – Out of Service UST Systems and Closure

- §310 defines the requirements for temporarily closing an UST.
- §320 defines the requirements for permanently closing an UST or requesting a change-in-service of an UST.
- §330 describes the site assessment requirements at the time an UST is closed.
- §350 requires that all closure records be maintained for a period of at least three years.

Part VIII – Requirements Effective on January 1, 2021

<u>Release Detection</u>

- Emergency generator tanks installed prior to 9/15/2010 will need to perform release detection. Those installed on or after 9/15/2010 must meet all applicable requirements at installation.
- Release detection equipment must be tested for proper operation annually.
- Tank owners must annually test the operation of electronic automatic line leak detectors by simulating a leak and ensuring the leak detector can detect leaks of three gallons per hour at 10 psi within one hour.
- Site assessment records required for groundwater and vapor monitoring release detection must be retained as long as the methods are used.

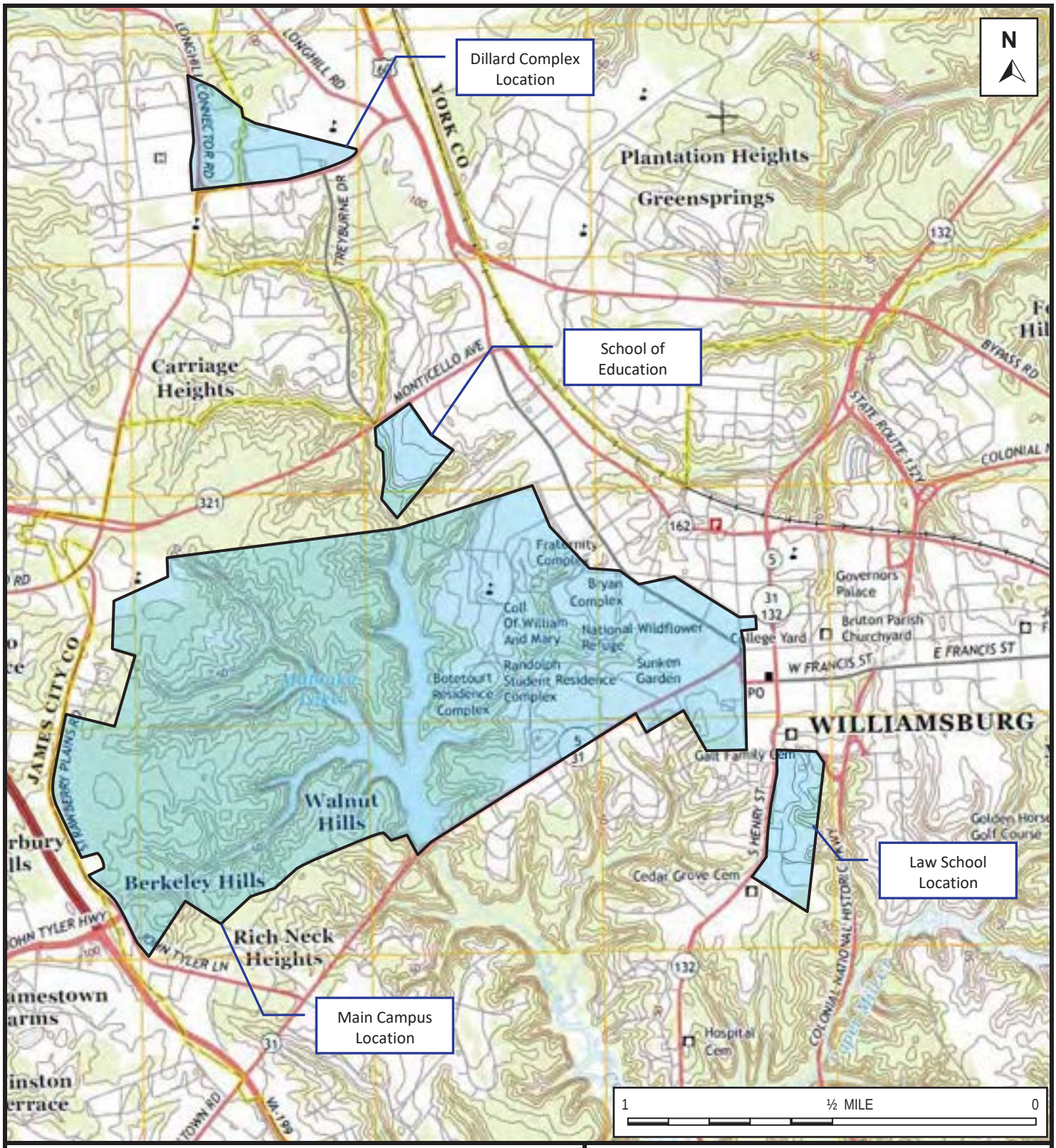
<u>Equipment Testing</u>

- By 1/1/21 and every 3 years thereafter, tightness testing must be conducted on secondary containment sumps used for interstitial monitoring, unless they are double-walled and interstitially monitored every 30 days.
- By 1/1/21 and every 3 years thereafter, tightness testing must also be conducted on spill prevention devices (buckets) unless they are double-walled and interstitially monitored.
- By 1/1/21 and every 3 years thereafter, a functionality test must be conducted on overfill prevention devices.

Walkthrough Inspections

- Every 30 days, tank owners/operators must inspect for damage and proper operation spill buckets, fill pipes and caps, interstitial areas of double-walled spill buckets, and release detection equipment.
- Note: If deliveries occur at intervals greater than every 30 days, the spill buckets only need to be checked prior to each delivery.
- Annually, tank owners/operators must inspect all containment sumps, under-dispenser containment, interstitial areas of double-walled containment sumps, and handheld release detection equipment for damage, operability, and leaks (if applicable).

FIGURES



Vicinity Map

Client: College of William & Mary
Facility: College of William & Mary
Location: Williamsburg, Virginia
Project: Spill Prevention, Control, and Countermeasure Plan

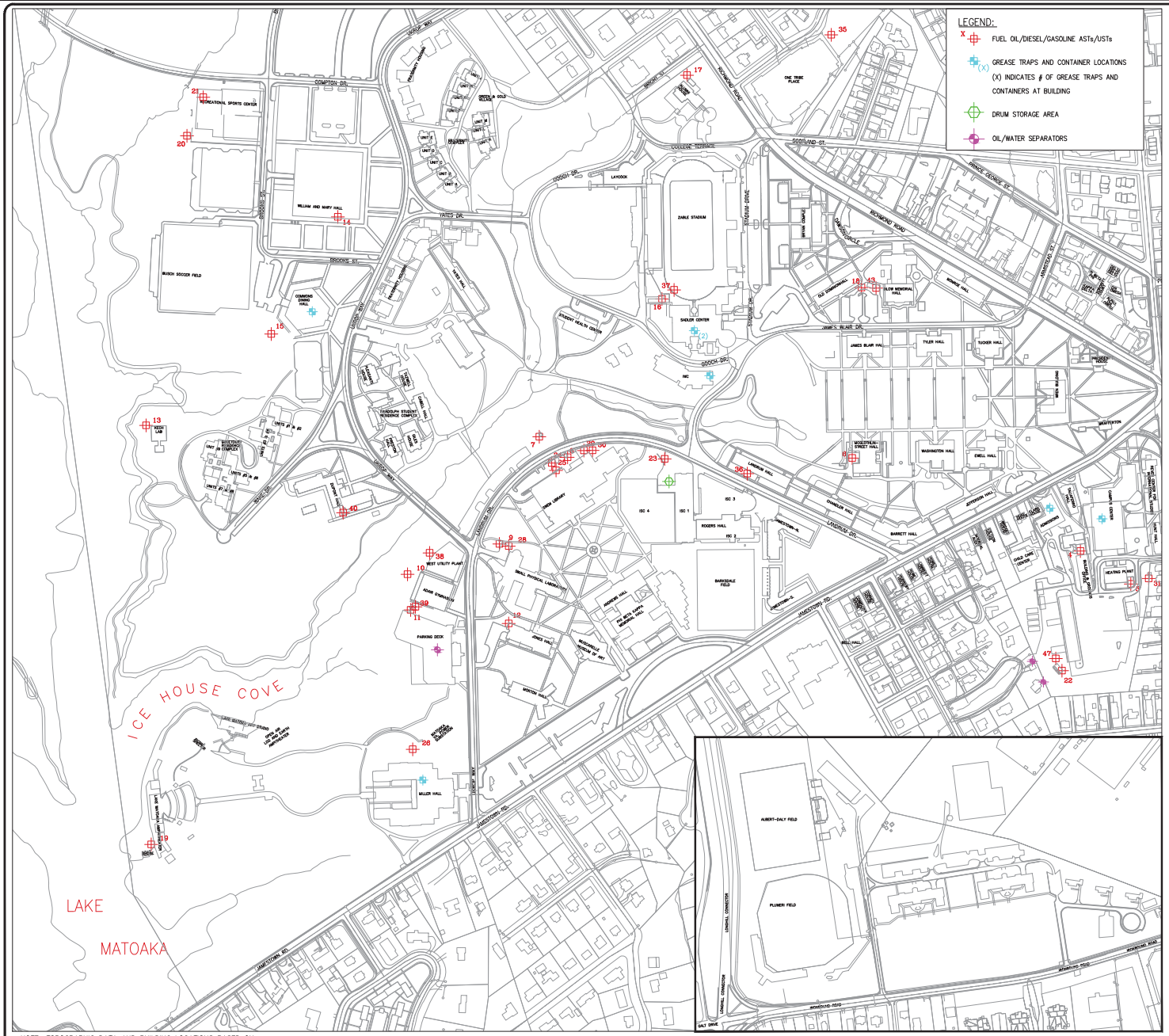
SOURCE: USGS Quad Williamsburg, Virginia, 2013

SCALE: As shown
PROJECT NO.: 2101011

Draper Aden Associates
Engineering • Surveying • Environmental Services
8090 Villa Park Drive
Richmond, VA 23228
804-264-2228 Fax 804-264-8773
Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA

DESIGNED: BHH
DRAWN: TRL
CHECKED: WGH
DATE: 03-24-22

FIGURE
1-1



NOTE: TOPOGRAPHIC DATA AND BUILDING LOCATIONS BASED ON CAMPUS-WIDE ALL PLAN DATED APRIL 2002.

LOCATION NUMBER	FACILITY NAME	CAPACITY (GAL.)	AST/UST
1	POPULATION LAB	200	AST
2	GRAD. HOUSING	189	AST
3	LAW SCHOOL	152	AST
4	FACILITIES	340	AST
5	HEATING PLANT	200	AST
6	McGLOTHIN-STREET HALL	200	AST
7	PUMPING STATION	990	AST
8	SWEM LIBRARY	400	AST
9	SMALL HALL NO. 1	230	AST
10	ADAIR GYMNASIUM	100	AST
11	PARKING DECK	1,200	AST
12	JONES HALL	1,200	AST
13	KECH LAB	350	AST
14	WILLIAM & MARY HALL	550	AST
15	COMMON DINING HALL	2,605	AST
16	SADLER CENTER	758	AST
17	ALUMNI HOUSE	110	AST
18	JAMES BLAIR HALL (OLD DOMINION)	255	AST
19	LAKE MATOAKA AMPHITHEATER	485	AST
20	REC SPORTS	3,000	AST
21	FIRE PUMP AT RECREATIONAL SPORTS	50	AST
22	GROUNDS VEHICLE FUEL	600	AST
23	ISC NO.1 & NO. 2	3,000	AST
24	SWEM PLANT NO. 1	313	AST
25	SWEM PLANT NO. 2	313	AST
26	MILLER HALL	1,600	AST
27	MONTICELLO PLANT	4,000	AST
28	SMALL HALL NO. 2	650	AST
29	SWEM PLANT-ALT.	15,000	UST
30	SWEM PLANT-ALT.	15,000	UST
31	HEATING PLANT-ALT.	20,000	UST
32	LAW SCHOOL-ALT.	5,000	UST
35	ONE TRIBE PLACE	1,325	AST
36	LANDRUM HALL	54	AST
37	ZABLE STADIUM	298	AST
38	WEST UTILITY PLANT	1,039	AST
39	WEST UTILITY PLANT	10,000	AST
40	DUPONT HALL	80	AST
43	BLOW HALL	2755	AST
47	FACILITIES MAINTENANCE	8,000	UST

Draper Aden Associates
Engineering • Surveying • Environmental Services
Hampton Roads, VA
703 Thimble Shoals Boulevard, Suite C2
Newport News, VA 23606
757-599-9800 Fax: 757-599-3684
www.dadc.com
Blacksburg, VA
Richmond, VA
Charlottesville, VA

PETROLEUM STORAGE LOCATION MAP
SPCC PLAN AMENDMENT
THE COLLEGE OF WILLIAM AND MARY

REVISIONS

DESIGNED BY: KJV
DRAWN BY: GHT
CHECKED BY: GHT
SCALE: NTS
DATE: MARCH 28, 2022
PROJECT NUMBER: 2101011

2-1

NOTE: TOPOGRAPHIC DATA AND BUILDING LOCATIONS BASED ON CAMPUS-WIDE ALL PLAN DATED APRIL 2002.

Draper Aden Associates
Engineering • Surveying • Environmental Services

Hampton Roads, VA
703 Thimble Shoals Boulevard, Suite C2
Newport News, VA 23606
757-599-9800 Fax: 757-599-3684
www.daa.com

Blacksburg, VA
Richmond, VA
Charlottesville, VA

HYDRAULICALLY-OPERATED ELEVATOR LOCATION MAP
SPCC PLAN AMENDMENT
THE COLLEGE OF WILLIAM AND MARY

REVISIONS

DESIGNED BY:	KJV
DRAWN BY:	GHT
CHECKED BY:	GHT
SCALE:	NTS
DATE:	MARCH 28, 2022
PROJECT NUMBER:	2101011

2-2A

DESIGNED BY:	KJV
DRAWN BY:	GHT
CHECKED BY:	GHT
SCALE:	NTS
DATE:	MARCH 28, 2022
PROJECT NUMBER:	2101011

2-2B

REVISIONS

TRANSFORMER LOCATION MAP

SPCC PLAN AMENDMENT

THE COLLEGE OF WILLIAM AND MARY

Draper Aden Associates
Engineering • Surveying • Environmental Services
Hampton Roads, VA
703 Thimble Shoals Boulevard, Suite C2
Newport News, VA 23606
757-599-9800 Fax: 757-599-3684
www.daa.com
Blacksburg, VA
Richmond, VA
Charlottesville, VA

STORM SEWER LOCATION MAP

SPCC PLAN AMENDMENT

THE COLLEGE OF WILLIAM AND MARY

REVISIONS

Draper Aden Associates
Engineering • Surveying • Environmental Services

Hampton Roads, VA
703 Thimble Shoals Boulevard, Suite C2
Newport News, VA 23606
757-599-9800 Fax: 757-599-3684
www.daa.com

Blacksburg, VA
Richmond, VA
Charlottesville, VA

DESIGNED BY:	KJV
DRAWN BY:	GHT
CHECKED BY:	GHT
SCALE:	NTS
DATE:	MARCH 28, 2022
PROJECT NUMBER:	2101011

2-3

TABLES

CLIENT: THE COLLEGE OF WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 3-1 - SUMMARY OF ABOVEGROUND STORAGE TANKS

Tank ID	Location	Capacity (Gal.)	Contents	Configuration	Integrity Inspection Requirements			Regulatory Requirements		
					Defined as a Bulk Storage Container?	Integrity Testing Required?	Integrity Testing Category	AST Regulated	AST Registration Submitted to DEQ	AST Renewal Registration (5 year update)
1	Population Lab Generator	200	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
2	Grad.Housing Pump Generator	189	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
3	Law School Generator	152	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
4	Facilities Generator	340	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
5	Power Plant Generator	200	No.2 Fuel Oil	belly tank	No	No	N/A ♦	No **	N/A **	N/A
6	McGlothlin-Street Hall Generator	200	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
7	Pumping Station Generator (Landrum Drive)	990	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
8	Swem Library Generator	400	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
9	Small Hall Generator #1	230	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
10	Adair Gymnasium Generator	138	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
11	Parking Deck Generator	1,200	Diesel	*detached*	*Yes*	*Yes*	*Category 1*	Yes***	4/4/2022	4/4/2027
12	Jones Hall Generator	1,200	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
13	Keck Lab Generator	350	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
14	William & Mary Hall Generator	550	Diesel	*detached*	*Yes*	*Yes*	*Category 1*	No*	N/A*	N/A
15	Commons Dining Hall Generator	2,605	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
16	Sadler Center Generator	758	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
17	Alumni House Generator	110	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
18	James Blair Hall Generator (Old Dominion)	255	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
19	LM Amphitheater Generator	485	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
20	Rec Sports Generator	3,000	No.2 Fuel Oil	belly tank	No	No	N/A ♦	No **	N/A **	N/A
21	Fire Pump at Recreational Sports	50	Diesel	*detached*	*Yes*	*Yes*	*Category 1*	No*	N/A*	N/A
22	Grounds Vehicle Fuel	600	Bio-diesel	*detached*	*Yes*	*Yes*	*Category 1*	No*	N/A*	N/A
23	ISC Generators	3,000	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
24	Swem Plant No. 1 Generator	313	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
25	Swem Plant No. 2 Generator	313	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
26	Miller Hall Generator	1,600	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
27	Monticello Plant	4,000	No.2 Fuel Oil	*detached*	*Yes*	*Yes*	*Category 1*	Yes***	4/4/2022	4/4/2027
28	Small Hall Generator #2	650	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
35	One Tribe Place Generator	1,325	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
36	Landrum Hall Generator	54	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
37	Zable Stadium Generator	298	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
38	West Utility Plant Generator	1,039	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
39	West Utility Plant	10,000	No.2 Fuel Oil	*detached*	*Yes*	*Yes*	*Category 1***	Yes***	4/4/2022	4/4/2027
40	DuPont Hall Generator	80	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
43	Blow Hall Generator	2,755	Diesel	belly tank	No	No	N/A ♦	No **	N/A **	N/A
Totals		39,629	SPCC - Spill Prevention, Control, and Countermeasures Plan required if aggregate aboveground oil storage capacity is greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons.							

UST - Underground Storage Tank

AST - Aboveground Storage Tank

CRDM - Continuous Release Detection Methods (elevated tanks, double walled; releases detected visually)

N/A - Not Applicable

* - An AST with a storage capacity of 660 gallons or less of oil is excluded from 9 VAC 25-91-30. These tanks do not require registration with DEQ.

** - Equipment or machinery that contains oil for operational purposes (i.e., belly tanks) are not regulated under the Virginia AST Regulations. These tanks do not require registration with DEQ.

*** - An AST with a capacity of 5,000 gallons or less used for storing heating oil for the consumptive use on the premises where stored are excluded from pollution prevention requirements (9 VAC 25-91-130 *et seq*).

♦ - NOT subject to the integrity requirements of the SPCC rule; however, monthly visual inspections required

Category 1 - elevated shop built AST (0 - 5,000 gallon capacity) with CRDM = equivalent environmental protection = monthly visual inspection by Owner + Formal Inspection by Certified inspector (every 10 years)

Category 1** - elevated shop built AST (5,001 - 30,000 gallon capacity) with CRDM = monthly visual inspection by Owner + Formal Inspection by Certified Inspector (every 20 yrs)

No. 2 diesel fuel is one of the specified types of motor fuel, and is not a specified type of heating oil. Owner records indicate that each tank location contains diesel fuel solely for emergency power generation.

CLIENT: THE COLLEGE OF WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 3-2 - SUMMARY OF UNDERGROUND STORAGE TANKS

Tank ID	Location	No. Tanks	Capacity (Gal.)	Total Capacity (Gal.)	Contents	Regulatory Requirements								
						UST Regulated	UST Installation Date	Tank Construction	Piping	Spill and Overflow Protection	Release Detection Method	UST Tank Tightness Testing Required?	Annual Test of Proper Operation Required?	UST Registration submitted to DEQ
29, 30	Swem Plant Alt. Fuel	2	15,000	30,000	No. 2 Fuel Oil	N/A	2002	Fiberglass, Double-walled	Double-walled	Spill bucket and automatic shutoff	Interstitial Monitoring	N/A	N/A	N/A
31	Power Plant Alt. Fuel	1	20,000	20,000	No. 2 Fuel Oil	N/A	2008	Fiberglass, Double-walled	Double-walled	Spill bucket and automatic shutoff	Interstitial Monitoring	N/A	N/A	N/A
32	Law School Alt. Fuel	1	5,000	5,000	No. 2 Fuel Oil	N/A	2007	Fiberglass, Double-walled	Double-walled	Spill bucket and automatic shutoff	Interstitial Monitoring	N/A	N/A	N/A
47	Facilities Maintenance	1	8,000	8,000	Gasoline	Yes	2000	Fiberglass, Double-walled	Double-walled	Spill bucket and automatic shutoff	Interstitial Monitoring + Vapor Monitoring System	Yes (3 year interval)	Yes	5/30/2006
Totals		5		63,000	SPCC - Spill Prevention, Control, and Countermeasures Plan required if aggregate aboveground oil storage capacity is greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons.									

SC- Secondary Containment

OFP- Overflow Protection

ASO- Automatic Shutoff

UST - Underground Storage Tank

In accordance with 40 CFR 280.12 and 9 VAC 25-580-10, the term underground storage tank does not include tanks that are used for storing heating oil.

No. 2 diesel fuel is one of the specified types of motor fuel, and is not a specified type of heating oil. Owner records indicate that each tank location contains diesel fuel solely for emergency power generation.

CLIENT: THE COLLEGE OF WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 3-3 INVENTORY OF HYDRAULIC ELEVATOR

Building	Elevator	Estimated Volume(s)
Adair Hall	Schindler	115
Admissions	Dover	160
Alumni House (Bright House)	Otis	90
Alumni House (Addition)	Otis	100
Andrews Hall	Dover	50
Blow Hall	Dover	110
Boswell Hall (Morton Hall)	Otis	130
Campus Center Freight	Westbrook	80
Campus Center Passenger	Dover	130
Cohen Career Center	Thyssen Krupp	100
Commons Dining Hall	Kone	120
DuPont Hall	Elevator Controls	130
Ewell Hall	Otis	170
Fraternity (x11)	Otis	68 (748)
Hardy (aka Jamestown Dormitory North)	Schindler	240
Hugh Jones Hall	Elevator Controls	130
Hunt Hall	Elevator Controls	130
ISC 1	Thyssen Krupp	176
ISC 2	Thyssen Krupp	232
ISC 3	Thyssen Krupp	232
James Blair Hall	Elevator Controls	140
Kaplan Arena (aka William & Mary Hall)	US Elevator	150
Laycock Center	Otis	82
Lemon (aka Jamestown Dormitory South)	Schindler	240
Marshall-Wythe Law Library #1	Schindler	100
Marshall-Wythe Law Library #2	Schindler	72
Marshall-Wythe Law School	Schindler	100
McGlothlin-Street Hall	Otis	250
Miller Hall #1 (Freight)	ThyssenKrupp	207
Miller Hall #2	ThyssenKrupp	107
Miller Hall #3	ThyssenKrupp	107
Muscarelle Museum of Art	US Elevator	130
One Tribe Place #6	Elevator Controls	80
Parking Deck- Garage	Thyssen Krupp	130

CLIENT: THE COLLEGE OF WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 3-3 INVENTORY OF HYDRAULIC ELEVATOR

Building	Elevator	Estimated Volume(s)
Parking Deck-Campus Police	Thyssen Krupp	130
Plumeri Field	Dover	100
Recreational Sports Center	Otis	160
Sadler Center Freight	Dover	110
Sadler Center Passenger 1	Dover	110
Sadler Center Passenger 2	Dover	110
School of Education #1	Schindler	130
School of Education #2	Schindler	130
School of Education #3	Schindler	115
Small Hall	Otis	85
Small Hall	Otis	200
Swem Library 1	Elevator Controls	200
Swem Library 2	Elevator Controls	200
Swem Library 3	Elevator Controls	310
Swem Library 4	Elevator Controls	310
Swem Library 5	Elevator Controls	130
Tennis Center	US Elevator	110
Trinkle Hall	Dover	120
Tucker Hall	Thyssen Krupp	100
Tyler Hall	Thyssen Krupp	100
Washington Hall	Dover	160
Yates Hall	Access. Ind.	100
Zable	Thyssen Krupp	100
Total Volume		**8,588**

All are aboveground storage tanks (ASTs)

CLIENT: WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 3-4 INVENTORY OF COOKING OILS AND GREASE TRAPS

Building	Construction	Grease Capacity	Total Capacity
Commons Dining Center	Precast Reinforced Concrete	300	1,000
Market Place Café	Steel	5	20
Daily Grind	Plastic	5	15
Miller Hall (School of Business)	Precast Reinforced Concrete	600	2,000
Cosi's	Stainless Steel	3	10
Sadler Center	Stainless Steel	30	100
		Total Capacity	**3,145**

CLIENT: THE COLLEGE OF WILLIAM & MARY
LOCATION: WILLIAMSBURG, VIRGINIA
PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

TABLE 13-1 - SPILL CONTAINMENT EQUIPMENT

Description	Main Utility Plant	West Utility Plant	Facilities Management	Swem Plant	School of Education Plant	Law School	Recreation Sports
Location	Boiler Room Chiller Room	Boiler Room Chiller Room	Fuel pumps	Basement by the fuel oil pumps, and back machinery room by the boilers.	Inside boiler room. Inside rear door to chiller plant by oil storage tank.	In the machinery room (and next to oil tank high level alarm by dumpsters)	Machinery room, fire pump room, and behind emergency generator service platform.
Spill Berm / spill barrier	6	6					
95-gallon Oil-only overpack spill kit	2	2		2	2		
Fuels/Flammable Liquids overpack spill kit			1				
30-gallon oil-only overpack spill kit						2	3
Various extra supplies and refills.				roll top storage on transformer pad.	In the generator room		
Square drain cover, up to 30 inch				3	2		
Round drain cover, up to 24 inch				3	2		

APPENDIX A

SPCC Rule Cross Reference

College of William & Mary
P.O. Box 8975
Williamsburg, Virginia

I.	**General Requirements**	
A.	Report must follow sequence specified in the rule or provide a cross-reference.	Appendix A
B.	Report must have full management approval. (40 CFR Part 112.7- First Paragraph)	Page iii after cover sheet
C.	Discussion of facility's conformance with SPCC plan requirements. (40 CFRPart 112.7 (a)(l))	Section I and Appendix A
D.	Discussion of reasons for nonconformance to plan requirements. (40 CFR Part 112.7 (a)(2))	Section I
E.	Describe the physical layout of the facility and include a facility layout. (40 CFR Part 112.7 (a)(3))	Section 2 and Figure 2-1 through 2-3
F.	Type of oil in each container and storage capacity. (40 CFR Part 112.7 (a)(3)(i))	Section 3
G.	Discharge prevention measures including procedures for routine handling. (40 CFR Part 112.7 (a)(3)(ii))	Section 9
H.	Discharge or drainage controls. (40 CFR Part 112.7 (a)(3)(iii))	Section 6
I.	Countermeasures for discharge discovery, response and cleanup. (40 CFR Part 112.7 (a)(3)(iv))	Section 13
J.	Methods of disposal for recovered materials. (40 CFR Part 112.7 (a)(3)(v))	Section 13
K.	Contact list and phone numbers to be contacted in response to a discharge. (40 CFR Part 112.7 (a)(3)(vi))	Section 13
L.	Provide information and procedures for reporting a discharge. (40 CFR Part 112.7 (a)(4))	Section 13
M.	Describe procedures that will be used when a discharge occurs. (40 CFR Part I 12.7 (a)(5))	Section 13

II	**Fault Analysis (40 CFR Part 112.7 (b))**	**Section(s)/Comments**
A.	Provide a prediction of the direction, rate of flow, and total quantity of oil that could be discharged. (40 CFR Part 112.7(b))	Section 4 and Appendix D

III	**Secondary Containment/Contingency Planning (40 CFR Part 112.7 (c&d))**	**Section(s)/Comments**
A.	Describe containment, diversionary structures and/or equipment used to prevent a discharge from the tanks and containers. (40 CFR Part 112.7 (c))	Section 5
B.	If measures are not practicable, describe why. (40 CFR Part 112.7 (d)	
C.	Prepare an oil spill contingency plan, if containment is not practicable. (40 CFR Part 112.7 (d)(l))	Not Applicable
D.	Written commitment of manpower, equipment, and materials. (40 CFR Part I 12.7 (d)(2))	Page iii and Section 13.5

IV	Inspections and Records (40 CFR Part 112.7 (e))	Section(s)/Comments
A.	Inspections to be conducted in accordance with written procedures, and records signed and kept with plan for at least 3 years. (40 CFR Part 112.7 (e))	Section 12

VI	Security (40 CFR Part 112.7 (g))	Section(s)/Comments
A.	Plant fully fenced and gates locked/guarded. (40 CFR Part 112.7 (g)(1))	Section II
B.	Provide adequate security for flow and drain valves to ensure they remain in a closed position when not operational. (40 CFR Part 112.7 (g)(2))	Section II
C.	Oil pump starter controls locked in "off'' position and only accessible to authorized personnel when not in use. (40 CFR Part 112.7 (g)(3))	Not Applicable
D.	Pipeline loading/unloading connections capped when not in service. (40 CFR Part 112.7 (g)(4))	Section 9
E.	Facility lighting sufficient for vandalism and spill identification during dark hours. (40 CFR Part 112.7 (g)(5))	Section II

VII	Facility Tank Car and Tank Truck Loading/Unloading Racks (40 CFRPart 112.7 (h))	Section(s)/Comments
A.	Use of quick drainage systems in areas without catchments basins. (40 CFR Part 112.7 (h)(1))	Section 9
B.	Containment system to hold at least the maximum capacity of any compartment. (40 CFR Part 112.7 (h)(l))	Section 9
C.	Use of warning lights or barriers to prevent truck departure prior to line disconnection. (40 CFR Part 112.7 (h)(2))	Section 9.2
D.	Inspection of lowest drains and outlets for leakage prior to filling and departure of tank cars and trucks. (40 CFR Part 112.7 (h)(3))	Section 9

VIII	Brittle Fracture Evaluation (40 CFR Part 112.7 (i)	Section(s)/Comments
A.	Evaluate containers under going repair, alteration, reconstruction, or change in service that might effect risk of a discharge. (40 CFR Part 112.7 (i))	Not Applicable

IX	Conformance with State Requirements (40 CFR Part 112.7 (j))	Section(s)/Comments
A.	Describe conformance with applicable State requirements. (40 CFR Part 112.7 U))	Section 14

X	Requirements for Offshore Facilities (40 CFR Part 112.8)	Section(s)/Comments
A.	Meet the general requirements for the SPCC Plan. (40 CFRPart 112.8 (a))	Section I
B.	Facility Drainage from storage areas. (40 CFRPart 112.8 (b))	Section 6
C.	Bulk Storage Containers. (40 CFR Part 112.8 (c))	Section 7
D.	Facility transfer operations, pumping and facility process. (40 CFR Part 112.8 (d))	Section 9

XI	Requirements for Onshore Oil Production Facilities (40 CFR Part 112.9)	Section(s)/Comments
A.	Meet the general requirements for the SPCC Plan. (40 CFRPart 112.9 (a))	Not applicable to this facility
B.	Oil production facility drainages. (40 CFRPart 112.9 (b))	Not applicable to this facility
C.	Oil production bulk storage containers. (40 CFR Part 112.9 (c))	Not applicable to this facility
D.	Facility transfer operations, oil production facility. (40 CFRPart 112.9 (d))	Not applicable to this facility

XII	Requirements for Onshore Oil Drilling and WorkoverFacilities (40 CFR Part 112.10)	Section(s)/Comments
A.	Meet the general requirements for the SPCC Plan. (40 CFRPart 112.10 (a))	Not applicable to this facility
B.	Mobile facilities. (40 CFRPart 112.10 (b))	Not applicable to this facility
C.	Secondary containment. (40 CFRPart 112.10 (c))	Not applicable to this facility
D.	Blowout Prevention. (40 CFRPart 112.10 (d))	Not applicable to this facility

XIII	Requirements for Onshore Oil Drilling and WorkoverFacilities (40 CFR Part 112.11)	Section(s)/Comments
A.	Meet the general requirements for the SPCC Plan. (40 CFR Part 112.11 (a))	Not applicable to this facility
B.	Facility Drainage. (40 CFRPart 112.11 (b))	Not applicable to this facility
C.	Sump Systems. (40 CFRPart 112.11 (c))	Not applicable to this facility
D.	Discharge prevention systems for separators and treaters. (40 CFRPart 112.11(d))	Not applicable to this facility
E.	Atmospheric storage or surge containers; alarms. (40 CFR Part 112.11 (e))	Not applicable to this facility
F.	Pressure containers; alarms. (40 CFR Part 112.11 (f))	Not applicable to this facility

G.	Corrosion Protection. (40 CFR Part 112.11 (g))	Not applicable to this facility
H.	Pollution prevention system procedures. (40 CFRPart 112.11(h))	Not applicable to this facility
I.	Pollution prevention systems; testing and inspection. (40 CFRPart 112.11 (i))	Not applicable to this facility
J.	Surface and subsurface well shut-in valves and devices. (40 CFRPart 112.11 (j))	Not applicable to this facility
K.	Blowout prevention. (40 CFR Part 112.11 (k))	Not applicable to this facility
L.	Manifolds. (40 CFRPart 112.11(1))	Not applicable to this facility
M.	Flowlines, pressure sensing devices. (40 CFR Part 112.11 (m))	Not applicable to this facility
N.	Piping; corrosion protection. (40 CFRPart 112.11 (n))	Not applicable to this facility
O.	Sub-marine piping; environmental stresses. (40 CFR Part 112.11 (o))	Not applicable to this facility
P.	Inspections of sub-marine piping. (40 CFR Part 112.11(p))	Not applicable to this facility

APPENDIX B

Certification of the Applicability of the Substantial Harm Criteria Checklist

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA
(APPENDIX C to 40 CFR 112; Section 3.0)

Facility Name: **The College of William & Mary**
Facility Address: P.O. Box 8975
Williamsburg, Virginia 23187-8795

1. Does the facility transfer oil over water or to vessels and does the facility have a total oil storage capacity of greater than or equal to 42,000 gallons? Yes ___ No X

2. Does the facility have a total oil storage capacity of greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest above ground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area? Yes ___ No X

3. Does the facility have a total storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility to navigable waters could cause injury to fish and wildlife and sensitive environments? Yes ___ No X

4. Does the facility have a total storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility to navigable waters would shut down a public drinking water intake? Yes ___ No X

5. Does the facility have a total storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years? Yes ___ No X

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and correct.

_____
Signature

_____
Name (please type or print)

_____
Title

_____
Date

APPENDIX C

Tank Registration Certificates

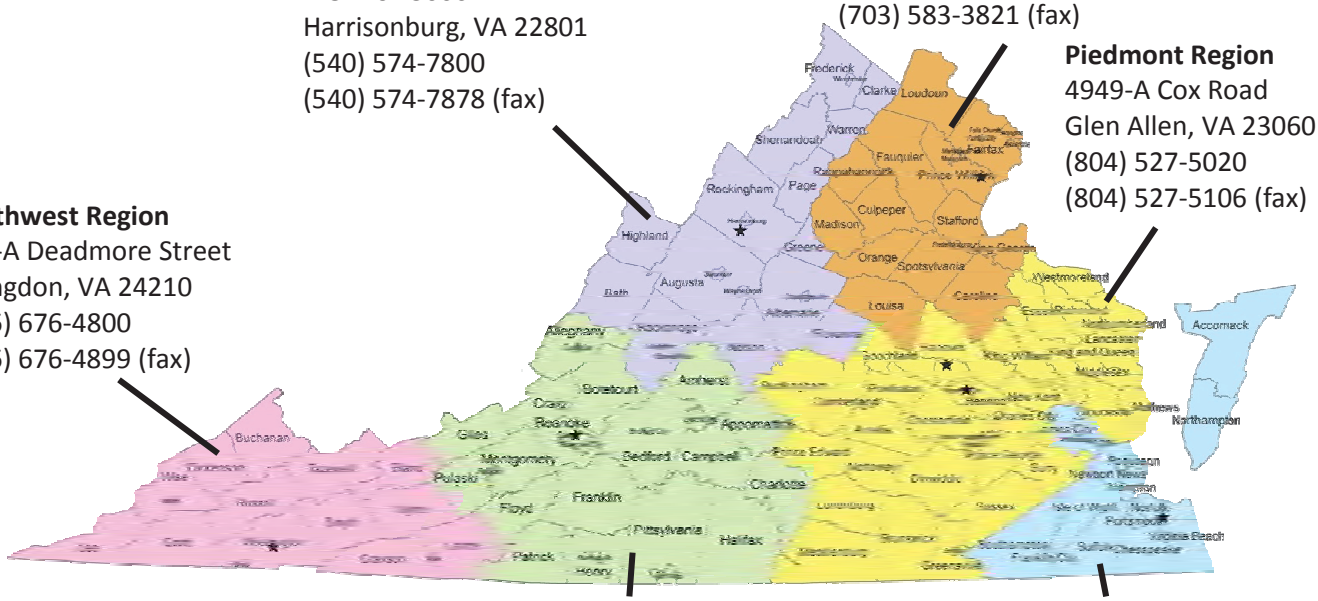
Virginia Department of Environmental Quality Regional Offices

Valley Region
4411 Early Road
P.O. Box 3000
Harrisonburg, VA 22801
(540) 574-7800
(540) 574-7878 (fax)

Northern Region
13901 Crown Court
Woodbridge, VA 22193
(703) 583-3800
(703) 583-3821 (fax)

Piedmont Region
4949-A Cox Road
Glen Allen, VA 23060
(804) 527-5020
(804) 527-5106 (fax)

Southwest Region
355-A Deadmore Street
Abingdon, VA 24210
(276) 676-4800
(276) 676-4899 (fax)



Blue Ridge Region
901 Russell Drive
Salem, VA 24153
(540) 562-6700
(540) 562-6725 (fax)

Tidewater Region
5636 Southern Blvd
Virginia Beach, VA 23462
(757) 518-2000
(757) 518-2009 (fax)

Mail notifications to the DEQ Regional Office serving the city or county where the Tanks are located.

Regional Offices		Counties and Cities
Blue Ridge Regional Office	**Counties**	Alleghany, Amherst, Appomattox, Bedford, Botetourt, Campbell, Charlotte, Craig, Floyd, Franklin, Giles, Halifax, Henry, Montgomery, Patrick, Pittsylvania, Pulaski, Roanoke
	Cities	Bedford, Clifton Forge, Covington, Danville, Lynchburg, Martinsville, Radford, Roanoke, Salem
Northern Regional Office	**Counties**	Arlington, Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Madison, Orange, Prince William, Rappahannock, Spotsylvania, Stafford, Louisa
	Cities	Alexandria, Falls Church, Fairfax, Fredericksburg, Manassas, Manassas Park
Piedmont Regional Office	**Counties**	Amelia, Brunswick, Buckingham, Charles City, Chesterfield, Cumberland, Dinwiddie, Essex, Gloucester, Goochland, Greensville, Hanover, Henrico, King and Queen, King William, Lancaster, Lunenburg, Mathews, Mecklenburg, Middlesex, New Kent, Northumberland, Nottoway, Powhatan, Prince Edward, Prince George, Richmond, Surry, Sussex, Westmoreland
	Cities	Colonial Heights, Emporia, Hopewell, Petersburg, Richmond
Southwest Regional Office	**Counties**	Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise, Wythe
	Cities	Bristol, Galax, Norton
Tidewater Regional Office	**Counties**	Accomack, Isle of Wight, James City, Northampton, Southampton, York
	Cities	Chesapeake, Franklin, Hampton, Newport News, Norfolk, Portsmouth, Poquoson, Suffolk, Virginia Beach, Williamsburg
Valley Regional Office	**Counties**	Albemarle, Augusta, Bath, Clarke, Fluvanna, Frederick, Greene, Highland, Nelson, Page, Rockbridge, Rockingham, Shenandoah, Warren
	Cities	Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, Waynesboro, Winchester

Registration for Facility and Aboveground Storage Tank (AST)

[Only for AST(s) >660 gallons]

See last page for mailing instructions

STATE USE ONLY
Number ID
Date Received
Date Entered
Entered By
Comments

I. PURPOSE OF NOTIFICATION

Check all that apply

- ☐ New Facility and Initial Registration
- ■ New AST Installation at Existing Facility
- ☐ Replacement of AST at Existing Facility
- ■ Renewal Registration **(every 5 years)**
  - ☐ With changes ■ With no changes
- ☐ Conversion or Brought Back Into Use
- ☐ Change of Owner or Title

AMENDMENTS

- ☐ Tank/Piping Major Repair/Upgrade
- ☐ Change in Service (change in stored petroleum substance)
- ☐ Change in Use (no longer stores petroleum)
- ☐ Piping Closure
- ☐ AST Closure
- ☐ Relocation (existing AST moved on site)
- ☐ Alteration/Retrofit
- ☐ Change in Operator
- ☐ Removal
- ☐ Other (specify):_____

II. OWNER OF TANKS

A. Owner Name: William & Mary (38180)	
B. Street Address: PO Box 8795	
C. City, State, Zip: Williamsburg, VA 23187	
D. Owner Phone Number: (757) 221-1754	E. Owner Fax Number: (757) 221-2254
G. Name of Previous Owner (if applicable): N/A	

III. LOCATION OF TANKS

A. Facility Name: William & Mary (5000379)	
B. Street Address (P.O. Box not acceptable): 115 Grigsby Drive	
C. City, Zip: Williamsburg, VA 23185	D. County: James City County
E. Facility Phone Number: (757) 221-2270	F. Facility Fax Number: (757) 221-2254
H. Previous Name of Facility (if applicable): N/A	

IV. CONTACT PERSON

A. Contact Person Name and Title: Farley Hunter Associate Director Operations	
B. Street Address: 115 Grigsby Drive	
C. City, State, Zip: Williamsburg, VA 23185	
D. Phone Number: (757) 221-1754	E. Fax Number: (757) 221-2254
F. E-mail Address: fhunter@wm.edu	

V. OPERATOR

A. Operator Name: Charles Jackson Central Utilities Supervisor	
B. Street Address: 115 Grigsby Drive	
C. City, State, Zip: Williamsburg, VA 23185	
D. Phone Number: (757) 221-1256	E. Fax Number: (757) 221-2254
F. E-mail Address: cljackson01@wm.edu	

VI. TYPE OF OWNER Select from below

- ☐ Federal Government
- ☐ Commercial
- ■ State Government
- ☐ Private
- ☐ Local Government

VII. TYPE OF FACILITY Select from below

- ☐ Retail Gas Station
- ☐ Federal Non-Military
- ☐ Commercial
- ☐ Farm
- ☐ Petroleum Distributor
- ☐ Federal Military
- ☐ Industrial
- ☐ Residential
- ☐ Local Government
- ■ State Government
- Other (specify): _____

VIII. OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. I understand that the owner of the aboveground storage tank(s) hereby registered is responsible for compliance with the requirements of Virginia Regulation 9 VAC 25-91-10 et seq., among other requirements. I warrant and represent that I am the owner or that I have the author[illegible] on behalf of the owner.

Farley Hunter Associate Director
Name and Title

DocuSigned by: Farley Hunter
3B42C778A5DE473...
Signature

4/4/2022 | 13:12:51 EDT
Date (MM/DD/YYYY)

IX-A. DESCRIPTION FOR NEW INSTALLATIONS, RENEWALS, AMENDMENTS & CLOSURES Check all that apply

Owner Tank Identification Number	11		27		39				
DEQ Tank Identification Number	36		37						
Tank Status	☐ New ■ Renewal ☐ Amendment ☐ Closure		☐ New ■ Renewal ☐ Amendment ☐ Closure		■ New ☐ Renewal ☐ Amendment ☐ Closure		☐ New ☐ Renewal ☐ Amendment ☐ Closure		☐ New ☐ Renewal ☐ Amendment ☐ Closure	
Date of Installation (MM/DD/YYYY)	09/01/2006		11/07/2006		02/24/2020					
Tank Capacity (Gallons) >660 (Compartments of a compartment tank are considered to be separate tanks and should be registered and treated as such)	1200		4000		10000					
Substance Stored	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Gasoline	☐		☐		☐		☐		☐	
Diesel	■		☐		☐		☐		☐	
Kerosene	☐		☐		☐		☐		☐	
Heating Oil	☐		■		■		☐		☐	
Lubricating Oil	☐		☐		☐		☐		☐	
Used Oil	☐		☐		☐		☐		☐	
Asphalt (petroleum based)	☐		☐		☐		☐		☐	
Jet Fuel	☐		☐		☐		☐		☐	
Aviation Gasoline	☐		☐		☐		☐		☐	
Ethanol	☐		☐		☐		☐		☐	
E85	☐		☐		☐		☐		☐	
Biodiesel	☐		☐		☐		☐		☐	
Other (specify):										
Materials of Construction	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Bare Steel	■	■	■	■	■	■	☐	☐	☐	☐
Insulated Steel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Concrete Coated/(ConVault Type Tank)	☐		☐		☐		☐		☐	
Galvanized Steel		☐		☐		☐		☐		☐
Fiberglass/FRP/PVC		☐		☐		☐		☐		☐
Copper/Brass		☐		☐		☐		☐		☐
Other (specify):										
Tank & Piping Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Single Wall	☐	■	☐	☐	☐	☐	☐	☐	☐	☐
Double Wall	■	☐	■	■	■	■	☐	☐	☐	☐
Cathodic/Corrosion Protected	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Double Bottom	☐		☐		☐		☐		☐	
Lined Interior	☐		☐		☐		☐		☐	
Shop Fabricated/Built	☐		☐		☐		☐		☐	
Portable/Skid	☐		☐		☐		☐		☐	
Horizontal	☐		☐		☐		☐		☐	
Vertical	☐		☐		☐		☐		☐	
Vaulted-below grade	☐		☐		☐		☐		☐	
Piping Totally Above Ground		■		☐		☐		☐		☐
Piping Totally Below Ground		☐		☐		☐		☐		☐
Piping Both Above and Below Ground		☐		■		■		☐		☐
Other (specify):										
Foundation Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Concrete	■		■		■		☐		☐	
Concrete w/Coating or Release Prevention Barrier (RPB)	☐		☐		☐		☐		☐	
Steel/Saddle/Runner/Beam	☐		☐		☐		☐		☐	
Earthen	☐		☐		☐		☐		☐	
Ring Wall	☐		☐		☐		☐		☐	
Other (specify):										
Roof Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Not Applicable-Horizontal Tank	■		■		■		☐		☐	
Fixed Cone-Welded/Bolted	☐		☐		☐		☐		☐	
Floating	☐		☐		☐		☐		☐	
Other (specify):										

IX-B. DESCRIPTION FOR NEW INSTALLATIONS, RENEWALS, AND AMENDMENTS

(ONLY COMPLETE IF FACILITY AST TOTAL STORAGE CAPACITY IS 25,000 GALLONS OR MORE) Check all that apply

Oil Discharge Contingency Plan _____ ODCP Number _____ Date Approved (MM/DD/YYYY)

Facility AST total storage capacity (aggregate of ASTs > 660 gallons) 15,200 Gallons

Piping Pressure Test (hydro/API 570/inert) Last Test Date (MM/DD/YYYY)										
Secondary Containment Date Certified by a PE (MM/DD/YYYY)										
Containment Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Dike/Berm/Wall	☐		☐		☐		☐		☐	
Sorbent Material	☐		☐		☐		☐		☐	
Curbing	☐		☐		☐		☐		☐	
Retention Pond	☐		☐		☐		☐		☐	
Weirs/Boom	☐		☐		☐		☐		☐	
Culverts/Gutters	☐		☐		☐		☐		☐	
Diversion Pool	☐		☐		☐		☐		☐	
None	☐		☐		☐		☐		☐	
Other (specify):										
Release Prevention Barrier	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Double Wall	☐		☐		☐		☐		☐	
Double Bottom	☐		☐		☐		☐		☐	
Coated Concrete	☐		☐		☐		☐		☐	
Dike/Berm Excavation Liner	☐		☐		☐		☐		☐	
Polyethylene Jacket	☐		☐		☐		☐		☐	
None	☐		☐		☐		☐		☐	
Other (specify):										
Release Detection Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Visual Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Interstitial Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Groundwater Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vapor Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (specify):										

IX-C. DESCRIPTION FOR NEW INSTALLATIONS, RENEWALS, AND AMENDMENTS

(ONLY COMPLETE IF FACILITY TOTAL STORAGE CAPACITY IS ONE MILLION GALLONS OR MORE)

Formal Inspection (API 653)	Tank	Tank	Tank	Tank	Tank
Last External Inspection Date (MM/DD/YYYY)					
Last Internal Inspection Date (MM/DD/YYYY)					

X. CLOSURE IN PLACE, REMOVAL, OR CHANGE IN USE Check all that apply

Tank and Piping Status	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Closed in Place	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Removed/Dismantled	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Conversion/Change in Use (NO LONGER STORES PETROLEUM)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Closure Site Assessment Completed Closure Assessment items to be enclosed with this form include: Site Map; Soil Sample Results or Records of Monthly Leak Detection Monitoring for the Previous 12 Months; Copy of Building Permit; and Photographs of Sampled Area.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Evidence of a Leak Detected	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Date Last Used (MM/DD/YYYY)										
Date Closed (MM/DD/YYYY)										

Comments:

ginia DEQ Form 7540-AST (01/07

Registration for Facility and Aboveground Storage Tank (AST)

(Only for AST(s) >660 gallons)

RECEIVED
DEQ FINANCIAL MGMT

2007 MAR 21 AM 8:58

STATE USE ONLY	
Number ID	5-000379
Date Received	
Date Entered	
Entered By	
Comments	

Mail Fee and this Form to:
Department of Environmental Quality
Office of Financial Management
P.O. Box 1104
Richmond, VA 23218

$ Indicates fee is required — **I. PURPOSE OF NOTIFICATION** — ** Check all that apply **

- [x] $ Initial Registration at Unregistered Facility
- [ ] $ New tank(s) at Previously Registered Facility
- [ ] $ Renewal Registration (every 5 years)
  - [ ] With changes
  - [ ] With no changes
- [ ] $ Change of Owner

AMENDMENTS

- [ ] Tank/Piping Major Repair/Upgrade
- [ ] Tank/Piping Closure/Removal
- [ ] Change in Use (no longer stores petroleum)
- [ ] Change in Service (change in stored petroleum)
- [ ] Relocation (existing AST moved on site)
- [ ] Alteration/Retrofit
- [ ] Change in Operator
- [ ] Other (specify):

II. OWNER OF TANKS

A. Owner Name: COLLEGE OF WILLIAM & MARY
B. Street Address: FACILITIES MGMT., P.O. BOX 8795
C. City, State, Zip: WILLIAMSBURG, VA 23188
D. Phone Number: 757-221-1754
E. Fax Number: 757-221-2254
F. E-mail Address: dpatt@wm.edu
G. Name of Previous Owner (if applicable):

III. LOCATION OF TANKS

A. Facility Name: COLLEGE OF WILLIAM & MARY
B. Street Address (P.O. Box not acceptable): 115 CRIGSBY DRIVE
C. City, State, Zip: WILLIAMSBURG, VA 23188
D. Phone Number: 757-221-1754
E. Fax Number: 757-221-2254
F. E-mail Address: dpatt@wm.edu
G. Previous Name of Facility (if applicable):

IV. CONTACT PERSON

A. Contact Person Name and Title: DAN PATTERSON, ENERGY MANAGER
B. Street Address: FACILITIES MGMT., P.O. BOX 8795
C. City, State, Zip: WILLIAMSBURG, VA 23188
D. Phone Number: 757-221-1754
E. Fax Number: 757-221-2254
F. E-mail Address: dpatt@wm.edu

V. OPERATOR

A. Operator Name: COLLEGE OF WILLIAM & MARY
B. Street Address: FACILITIES MGMT., P.O. BOX 8795
C. City, State, Zip: WILLIAMSBURG, VA 23188
D. Phone Number: 757-221-1754
E. Fax Number: 757-221-2254
F. E-mail Address: dpatt@wm.edu

RECEIVED
MAR 23 2007
OSRR

VI. TYPE OF OWNER

Click and select from menu below

CLICK HERE

VII. TYPE OF FACILITY

Click and select from menu below

CLICK HERE

If other specify:

VIII. REGISTRATION / RENEWAL FEE

If [ ]$ is checked in "I. PURPOSE OF NOTIFICATION" use the following schedule to determine fee:

An individual AST (new, existing, replaced or brought back into use after permanent closure) or a facility with one AST = $25.
A facility with two or more ASTs or two facilities with one AST at each facility = $50.
Two facilities with one AST at first facility and two or more at the second facility or three facilities with one AST at each facility = $75.
Two or more facilities with more than two ASTs at each facility = $100. NOTE: no payment/fee exceeds $100.

MID 23154

Fee shall be paid in United States currency by check, draft, or postal money order made payable to the "Treasurer of Virginia".
Attach check, draft, or postal money order to DEQ form 7540-AST.
Mail to: Department of Environmental Quality, Office of Financial Management, P.O. Box 1104, Richmond, VA 23218.

47330

Fee enclosed [x] YES [ ] NO **Amount enclosed** [ ] $25 [x] $50 [ ] $75 [ ] $100

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I understand that the owner of the aboveground storage tank(s) hereby registered is responsible for compliance with the requirements of Virginia Regulation 9 VAC 25-91-10 et seq., among other requirements. I warrant and represent that I am the owner or that I have the authority to sign this certification on behalf of the owner.

Name and Title _____ Signature _____ Date (MM/DD/YYYY) ____/____/____

X-A. DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS

** Check all that apply **

Owner Tank Identification Number	37		36							
DEQ Tank Identification Number										
Tank Status	☐ New ☐ Renewal ☐ Amendment		☐ New ☐ Renewal ☐ Amendment		☐ New ☐ Renewal ☐ Amendment		☐ New ☐ Renewal ☐ Amendment		☐ New ☐ Renewal ☐ Amendment	
Date of Installation (MM/DD/YYYY)	11,07,2006		09,01,2006		/ /		/ /		/ /	
Tank Capacity (Gallons)	4,000		1,200							
Materials of Construction	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Bare Steel Welded	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐
Bare Steel Riveted	☐		☐		☐		☐		☐	
Insulated Steel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Steel w/Concrete	☐		☐		☐		☐		☐	
Galvanized Steel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fiberglass/FRP/PVC		☐		☐		☐		☐		☐
Copper/Brass		☐		☐		☐		☐		☐
Unknown	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (specify):										
Tank & Piping Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Single Wall	☐	☑	☐	☑	☐	☐	☐	☐	☐	☐
Double Wall	☑	☐	☑	☐	☐	☐	☐	☐	☐	☐
Totally Above the Ground	☑	☐	☑	☐	☐	☐	☐	☐	☐	☐
Cathodic/Corrosion Protected	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Below or Partially Below the Ground	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Lined Interior	☐		☐		☐		☐		☐	
Double Bottom	☐		☐		☐		☐		☐	
Portable/Skid	☐		☐		☐		☐		☐	
Horizontal	☑		☑		☐		☐		☐	
Shop Fabricated	☐		☐		☐		☐		☐	
Vaulted Concrete Above the Ground	☐		☐		☐		☐		☐	
Vaulted-below grade	☐		☐		☐		☐		☐	
Other (specify):										
Foundation Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Earthen	☐		☐		☐		☐		☐	
Concrete w/Coating or Release Prevention Barrier (RPB)	☐		☐		☐		☐		☐	
Steel/Saddle/Runner/Beam	☐		☐		☐		☐		☐	
Concrete	☑		☑		☐		☐		☐	
Ring Wall	☐		☐		☐		☐		☐	
Unknown	☐		☐		☐		☐		☐	
Other (specify).										
Roof Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Floating Internal	☐		☐		☐		☐		☐	
Floating External	☐		☐		☐		☐		☐	
Fixed Cone	☐		☐		☐		☐		☐	
Breather	☐		☐		☐		☐		☐	
Double Deck	☐		☐		☐		☐		☐	

X-A. DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS (Continued)

** Check all that apply **

Roof Type (continued)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Pontoon	☐		☐		☐		☐		☐	
Lifter	☐		☐		☐		☐		☐	
Pan-Flat	☐		☐		☐		☐		☐	
None-Horizontal Tank	☐		☐		☐		☐		☐	
Other (specify):										

Substance Stored	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Gasoline	☐		☐		☐		☐		☐	
Diesel	☐		☐		☐		☐		☐	
Asphalt	☐		☐		☐		☐		☐	
Heating Oil	☐		☐		☐		☐		☐	
Fuel Oil	☐		☐		☐		☐		☐	
Kerosene	☐		☐		☐		☐		☐	
Used Oil	☐		☐		☐		☐		☐	
Lubricating Oil	☐		☐		☐		☐		☐	
Bunker C	☐		☐		☐		☐		☐	
Jet Fuel	☐		☐		☐		☐		☐	
Aviation Gasoline	☐		☐		☐		☐		☐	
Other (specify):										

X-B. DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS

(ONLY COMPLETE IF FACILITY AST TOTAL STORAGE CAPACITY IS 25,000 GALLONS OR MORE)

** Check all that apply **

Oil Discharge Contingency Plan _____ ODCP Number _____ / _____ / _____ Date Approved (MM/DD/YYYY)

Facility AST total storage capacity _____ Gallons

	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Inventory Control	☐		☐		☐		☐		☐	
Safe Fill and Shutdown Procedure	☐		☐		☐		☐		☐	
Piping Pressure Test (hydro/API 570/inert) Last Test Date (MM/DD/YYYY)	/ /		/ /		/ /		/ /		/ /	
Secondary Containment Date Certified by a PE (MM/DD/YYYY)	/ /		/ /		/ /		/ /		/ /	

Financial Responsibility: ☐ Self Insurance ☐ Insurance ☐ Guarantee ☐ Letter of Credit ☐ Surety Bond ☐ Trust Fund

Release Detection Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Groundwater Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Visual Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vapor Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Interstitial Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (specify):										

Release Prevention Barrier	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Double Bottom	☐		☐		☐		☐		☐	
Double Wall	☐		☐		☐		☐		☐	
Polyethylene Jacket	☐		☐		☐		☐		☐	
Dike/Berm Excavation Liner	☐		☐		☐		☐		☐	
Coated Concrete	☐		☐		☐		☐		☐	
None	☐		☐		☐		☐		☐	
Unknown	☐		☐		☐		☐		☐	
Other (specify):										

X-B. DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS (ONLY COMPLETE IF FACILITY AST TOTAL STORAGE CAPACITY IS 25,000 GALLONS OR MORE) (Continued)

** Check all that apply **

Containment Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Curbing	☐		☐		☐		☐		☐	
Weirs/Boom	☐		☐		☐		☐		☐	
Sorbent Material	☐		☐		☐		☐		☐	
Culverts/Gutters	☐		☐		☐		☐		☐	
Diversion Pool	☐		☐		☐		☐		☐	
Retention Pond	☐		☐		☐		☐		☐	
Dike/Berm/Wall	☐		☐		☐		☐		☐	
None	☐		☐		☐		☐		☐	
Unknown	☐		☐		☐		☐		☐	
Other (specify):										

X-C. DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS

(ONLY COMPLETE IF FACILITY TOTAL STORAGE CAPACITY IS ONE MILLION GALLONS OR MORE)

Formal Inspection (API 653)	Tank	Tank	Tank	Tank	Tank
Last External Inspection Date (MM/DD/YYYY)	/ /	/ /	/ /	/ /	/ /
Last Internal Inspection Date (MM/DD/YYYY)	/ /	/ /	/ /	/ /	/ /
Corrosion Protection (Tank)	Tank	Tank	Tank	Tank	Tank
Installation Date (MM/DD/YYYY)	/ /	/ /	/ /	/ /	/ /
Cathodic Protection (Buried Piping)	Piping	Piping	Piping	Piping	Piping
Installation Date (MM/DD/YYYY)	/ /	/ /	/ /	/ /	/ /
Groundwater Characterization Study	Date Approved (MM/DD/YYYY) / /				

XI. CLOSURE IN PLACE, REMOVAL, OR CHANGE IN USE

** Check all that apply **

Tank and Piping Status	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Closed in Place	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Removed/Dismantled	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Change in Use (NO LONGER STORES PETROLEUM)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Closure Site Assessment Completed A Completed Closure Site Assessment is comprised of the following items to be enclosed with this form: Site Map; Soil Sample Results; Copy of Building Permit; and Photographs of Sampled Area.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Evidence of a Leak Detected	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Date Last Used (MM/DD/YYYY)	/ /		/ /		/ /		/ /		/ /	
Date Closed (MM/DD/YYYY)	/ /		/ /		/ /		/ /		/ /	

Comments:

Fax 804-698-4178

The College of
WILLIAM & MARY

Department of Facilities Management
P.O. Box 8795
Williamsburg, VA 23187-8795
757/221-1754, Fax 757/221-2254

21 March 2007

Mr. Tom Madigan
Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

Re: AST Registrations

As we have discussed, I have attached the appropriate registration forms for aboveground tanks number 36 and 37.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Daniel Patterson

Daniel Patterson
Energy Manager, Facilities Management

Notification for Underground Storage Tanks (USTs)

Virginia DEQ Water Form 7530-2

(See reverse for mailing instructions) Rev. (01/03)

STATE USE ONLY

ID Number 5000379

Date Received

Date Entered 5/30/06

Entered By TEM

Comments

MAY 2006 RECEIVED DEQ TIDEWATER REGIONAL OFFICE

PART I: PURPOSE OF NOTIFICATION

✓ **Check all that apply:**

- ☑ New (not previously registered) facility
- ☐ Temporary closure
- ☐ Change in tank contents
- ☐ New tank(s) at previously registered facility
- ☐ Tank removal or closure
- ☐ New owner
- ☐ Change in tanks (e.g., upgrade)
- ☐ Piping removal or closure
- ☐ Change in owner address
- ☐ Change in piping (e.g., upgrade)
- ☒ Other (specify): updated information

PART II: OWNERSHIP OF TANKS

A. Owner Name: College of William & Mary

B. Owner Address: PO Box 8795, Facilities Mngmnt

C. City, State, Zip: Williamsburg, VA 23185

D. Name of Contact Person: Larry Richards

E. Title of Contact Person: Safety Engineer

F. Phone Number: (757) 221-2288 | Fax Number: (757) 221-2254

G. E-mail Address: lxrich@wm.edu

H. Name of Previous Owner:

PART III: LOCATION OF TANKS

A. Facility Name: College of William & Mary

B. Facility Street Address (P.O. Box not acceptable): 115 Grigsby Dr

C. City, Zip: Williamsburg, VA 23185

D. County or Municipality where Facility is Located: Williamsburg

E. Name of Contact Person: Larry Richards

F. Title of Contact Person: Safety Engineer

G. Phone Number: (757) 221-2288 | Fax Number: (757) 221-2254

H. E-mail Address: lxrich@wm.edu

RECEIVED JUN 06 2006 OSRR

PART IV: TYPE OF OWNER

- ☐ Federal government
- ☐ Commercial
- ☒ State government
- ☐ Private
- ☐ Local government

PART V: TYPE OF FACILITY

- ☐ Retail gas station
- ☐ Petroleum distributor
- ☐ Local government
- ☐ Federal non-military
- ☐ Federal military
- ☐ State government
- ☐ Commercial (non-resale)
- ☐ Industrial
- ☒ Other: educational
- ☐ Residence
- ☐ Farm

PART VI: FINANCIAL RESPONSIBILITY

The tank owner has met the financial responsibility requirements contained in 9 VAC 25-590-10 et seq. using the following methods/mechanisms

- ☐ Self Insurance
- ☐ Insurance
- ☐ Letter of Credit
- ☐ Virginia Petroleum Storage Tank Fund
- ☐ Guarantee
- ☐ Surety Bond
- ☐ Trust Fund

PART VII: OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I understand that the owner of the underground storage tanks hereby registered is responsible for compliance with the requirements of Virginia Regulations 9 VAC 25-580-10 et seq. and federal regulation 40 CFR Part 280, among other requirements. I warrant and represent that I am the owner or that I have the authority to sign this certification on behalf of the owner. I understand that this notification form is sufficient evidence to establish ownership of tanks subject to 9 VAC 25-580-10 et seq.

Larry Richards, Safety Engineer — Name and Title (Type or Print)

Larry Richards — Signature

04 / 20 / 06 — Date

PART VIII: INSTALLER CERTIFICATION

I certify that the installation of this tank was performed in accordance with all federal, state and local installation requirements. I warrant and represent that I am the installer or that I have the authority to sign this certification on behalf of the installer.

Name and Title (Type or Print) _____ Signature _____ Date ___/___/___

Company Name _____ Address _____ Telephone Number (___) _____

PART IX: TANK DESCRIPTION FOR NEW INSTALLATIONS AND AMENDMENTS

Owner Tank Identification Numbe.	23		12						
DEQ Tank Identification Number	7		8						
Tank Status	☐ New Tank ☒ Amendment		☐ New Tank ☒ Amendment		☐ New Tank ☐ Amendment		☐ New Tank ☐ Amendment		☐ New Tank ☐ Amendment	
Date of Installation (MM/DD/YYYY)	08/16/1999		07/15/1985							
Date of Amendment (MM/DD/YYYY)	04/10/2006		04/10/2006							
Tank Capacity (Gallons)	8,000		750							
Substance stored (if hazardous, include CERCLA name and/or CAS number)	GASOLINE		Diesel							
Material of Construction (√ all that apply)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Fiberglass Reinforced Plastic	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐
Coated and Cathodically Protected/STI-P3®	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Double Walled	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐
Impressed Current System Steel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Composite (Steel Clad with Fiberglass)/ACT 100 ®	☐		☐		☐		☐		☐	
Lined Interior	☐		☐		☐		☐		☐	☐
Polyethylene Tank Jacket	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Concrete	☐		☐		☐		☐		☐	
Excavation Liner	☐		☐		☐		☐		☐	
Asphalt Coated or Bare Steel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Secondary Containment		☐		☐		☐		☐		☐
Galvanized Steel		☐		☐		☐		☐		☐
Copper		☐		☐		☐		☐		☐
Other (specify)										
Has tank/piping been repaired?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Piping Type	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Safe Suction (No Check Valve at Tank)		☐		☒		☐		☐		☐
U.S. Suction (Check Valve at Tank)		☐		☐		☐		☐		☐
Pressure		☐		☐		☐		☐		☐
Gravity Fed		☐		☐		☐		☐		☐
Release Detection	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Manual Tank Gauging	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tightness Testing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inventory Control	☐		☐		☐		☐		☐	
Automatic Tank Gauging	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vapor Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Groundwater Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Interstitial Monitoring-Double Walled	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
Interstitial Monitoring-Secondary Containment	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
Automatic Line Leak Detectors		☒		☐		☐		☐		☐
Statistical Inventory Reconciliation	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (specify)										
Spill Containment & Overfill Prevention	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Spill Containment/Bucket	☒		☒		☐		☐		☐	
Overfill Automatic Shutoff	☐		☒		☐		☐		☐	
Overfill Alarm	☐		☐		☐		☐		☐	
Overfill Ball Float Valve	☐		☐		☐		☐		☐	

APPENDIX D

Emergency Contact List

CLIENT: WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA
PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

APPENDIX D

UNIVERSITY CONTACTS

Name	Title	Responsibility	Telephone (Office)	Telephone (Mobile)
Teresa Belback	Environmental Health & Safety Director	Emergency Coordinator	757-221-2146	804-370-3877
Larry Jackson	Central Utilities Supervisor	Plant Emergencies & Alternate Emergency Coordinator	757-221-1256	757-570-0742
Megan Beagle	Environmental Health & Safety Officer	Alternate Emergency Coordinator	757-221-2288	757-268-6656
David LaPlante	Environmental Health & Safety Fire Safety Officer	Alternate Emergency Coordinator	757-221-1745	757-472-8630
Brian Crystal	Operations & Maintenance Director	Operations & Maintenance Coordinator	757-221-1205	757-618-8990
Melissa Wilson	Chief Electrician, Facilities Management	Electrical and Elevator Equipment Contact	757-221-5395	757-345-8640
Sam Hayes (interim)	Facilities Planning, Design, & Construction Director	Construction Project Contact	757-221-2255	540-521-8660
Cindy Glavas	Auxiliary Services	Dining Services Equipment Related Emergencies	757-221-3643	757-633-8328
Duty Supervisor	Facilities Management	After Hours Duty Supervisor Contact	N/A	757-603-0482

CLIENT: THE COLLEGE OF WILLIAM & MARY

LOCATION: WILLIAMSBURG, VIRGINIA

PROJECT: SPILL PREVENTION CONTROL & COUNTERMEASURES PLAN

APPENDIX D

OFF-SITE EMERGENCY CONTACTS

Name	Telephone
National Response Center Hotline (Incident report form included in Appendix I)	800-424-8802
Virginia Department of Emergency Management	800-468-8892
Virginia Pollution Response Coordinator (Tidewater Regional Office)	757-518-2179
City of Williamsburg Fire Department (Emergencies)	911
City of Williamsburg Fire Department (Non-Emergencies)	757-220-6222
City of Williamsburg Police Department (Emergencies)	911
City of Williamsburg Police Department (Non-Emergencies)	757-220-2333
Newport News Hazardous Waste Response Team	757-926-8404
Emergency Response/Spill Cleanup Services:	
Veolia Environmental Services, Inc. (Richmond, Virginia)	Phone: 804-233-6980
IMS Environmental Services/Hepaco Norfolk, Virginia)	Phone: 757-543-5718
Oakley Industrial Services (Prince George, Virginia)	Phone: 804-543-4932
PetroChem Recovery Services, Inc. (Norfolk, Virginia)	Phone: 757-627-8791
Consultants:	
Consultants: Draper Aden Associates (Richmond, Virginia)	804-264-2228
Virginia Dominion Power - Transformer Leak Hotline	1-866-366-4357

APPENDIX E

Spill History Information

From:	Tom Laughlin
To:	Tom Laughlin
Subject:	W&M Spill Update - June 14, 2021
Date:	Friday, April 15, 2022 8:26:45 AM
Attachments:	image003.png

From: Belback, Teresa <tbelback@wm.edu>
To: Tom Laughlin <tlaughlin@daa.com>

Swem Library Diesel Spill

At about 0815 hours on Monday, June 14, 2021, a contractor of William & Mary Facilities Management discovered a diesel leak in the mechanical equipment room in the basement of the Swem Library located at 400 Landrum Drive, Williamsburg, Virginia. Approximately 163 gallons of diesel spilled over 349 SF of the basement. No product reached floor drains. The root cause was a failed pressure switch for fuel pumps. Facilities Management personnel were able to immediately respond by turning off valves at the location of the leak and applying oil dry and utilizing absorbent pads. Pollution Report Number: #304097

APPENDIX F

Spill Predictions

College of William and Mary
P.O. Box 8975
Williamsburg, Virginia
DAA Project No. R06714-62E

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
ABOVEGROUND STORAGE TANKS								
Tank 1	Population Lab Generator	200	Tank Overfill	65	325	On ground and pavement, south to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	55	352	On ground and pavement, south to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	200	200	On ground and pavement, south to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 2	Graduate Housing Generator	189	Tank Overfill	65	325	On ground, approximately 200 feet southeast to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground and pavement, approximately 200 feet southeast to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	189	189	On ground, approximately 200 feet southeast to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 3	Law School Generator	152	Tank Overfill	65	325	On ground toward catch basin	5 gallon fill containment	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, southeast overland to stormwater BMP	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	152	152	On ground southeast overland to stormwater BMP	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 4	Facilities Generator	340	Tank Overfill	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	340	340	On pavement and ground, approximately 100 feet southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 5	Power Plant Generator	200	Tank Overfill	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	200	200	On pavement and ground, approximately 100 feet southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 6	McGlothlin Street Hall Generator	200	Tank Overfill	65	325	On ground, approximately 300 feet northwest to Crim Dell (pond)	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, approximately 300 feet northwest to Crim Dell (pond)	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	200	200	On pavement and ground, approximately 300 feet northwest to Crim Dell (pond)	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 7	Pumping Station Generator	100	Tank Overfill	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	100	100	On pavement and ground, approximately 100 feet southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 8	SWEM Library Generator	400	Tank Overfill	65	325	50 or 500 feet on ground or pavement, southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	50 or 500 feet on ground or pavement, southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	400	400	50 or 500 feet on ground or pavement, southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 9	Small Hall Generator No.1	230	Tank Overfill	65	325	On ground, approximately 200 feet west to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, approximately 200 feet west to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	230	230	On ground, approximately 200 feet west to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 10	Adair Gymnasium Generator	100	Tank Overfill	65	325	On ground, approximately 125 feet north to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 125 feet north to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	100	100	On ground, approximately 125 feet north to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 11	Parking Deck Generator	1200	Tank Overfill	65	325	On ground, approximately 500 feet northwest to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 500 feet northwest to stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	1,200	1,200	On ground, approximately 500 feet northwest to stream	Single-walled tank is secondary containment	Regular tank inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
Tank 12	Jones Hall Generator	1200	Tank Overfill	65	325	On ground, approximately 200 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, approximately 200 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	1,200	1,200	On ground, approximately 200 feet southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 13	Keck Lab Generator	350	Tank Overfill	65	325	On ground, 100 feet west to Lake Matoaca	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 100 feet west to Lake Matoaca	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	350	350	On ground, 100 feet west to Lake Matoaca	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 14	William & Mary Hall Generator	550	Tank Overfill	65	325	On ground, approximately 400 feet southeast to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, approximately 800 feet southeast to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	550	550	To secondary containment	Double-walled tank	Regular tank inspection and maintenance
Tank 15	Commons Dining Hall Generator	2605	Tank Overfill	65	325	On ground, approximately 600 feet southwest to Lake Matoaca	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 600 feet southwest to Lake Matoaca	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	2,605	2,605	On ground, approximately 600 feet southwest to Lake Matoaca	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 16	Sadler University Center Generator	200	Tank Overfill	65	325	On ground, approximately 100 feet to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 100 feet to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	200	200	On ground, approximately 100 feet to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 17	Alumni House Generator	110	Tank Overfill	65	325	On pavement and ground, approximately 100 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, approximately 200 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	110	110	On pavement and ground, approximately 100 feet southwest to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 18	James Blair Generator	255	Tank Overfill	65	325	On pavement or ground, approximately 200 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement or ground, approximately 200 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	255	255	On pavement or ground, approximately 200 feet southwest to catch basin	None	Regular tank inspection and maintenance
Tank 19	LM Amphitheater Generator	485	Tank Overfill	65	325	On ground, approximately 300 feet west to Lake Matoaca	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 300 feet west to Lake Matoaca	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	485	485	On ground, approximately 300 feet west to Lake Matoaca	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 20	Rec Sports Generator	3000	Tank Overfill	65	325	On ground, approximately 200 feet west to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 200 feet west to stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	3,000	3,000	On ground, approximately 200 feet west to stream	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 21	Fire Pump at Rec Sports	50	Tank Overfill	65	325	On ground, 50 feet west to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement and ground, 50 to 200 feet west or southwest to storm sewer or stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	50	50	Onto building floor	Indoor containment room; concrete walls, floor, curbing	Regular tank inspection and maintenance
Tank 22	Grounds Vehicle Fuel	600	Tank Overfill	65	325	100 feet southwest on ground and pavement to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	100 feet southwest on ground and pavement to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	600	600	100 feet southwest on ground and pavement to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
Tank 23	ISC Generators	3000	Tank Overfill	65	325	On pavement, 20 feet east to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, 20 feet east to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	3,000	3,000	On pavement, 20 feet east to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 24	Steam Plant No 1 Generator	313	Tank Overfill	65	325	On pavement, 20 feet east to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, 20 feet east to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	313	313	On pavement, 20 feet east to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 25	Steam Plant No 2 Generator	313	Tank Overfill	65	325	On pavement, 20 feet east to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, 20 feet east to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	313	313	On pavement, 20 feet east to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 26	Miller Hall Generator	1600	Tank Overfill	65	325	On pavement, 20 feet east to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, 20 feet east to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	1,600	1,600	On pavement, 20 feet east to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 27	Monticello Plant	4000	Tank Overfill	65	325	On ground, 100 feet west to ravine	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 100 feet west to ravine	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	4,000	4,000	On ground, 100 feet west to ravine	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 28	Small Hall Generator No.2	650	Tank Overfill	65	325	On ground, 100 feet west to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 100 feet west to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	650	650	On ground, 100 feet west to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 35	One Tribe Place Generator	1325	Tank Overfill	65	325	On ground and pavement, 85 feet southeast to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground and pavement, 85 feet southeast to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	1,325	1,325	On ground and pavement, 85 feet southeast to catch basin	Tank is a steel, double-walled subbase tank	Regular tank inspection and maintenance
Tank 36	Landrum Hall	54	Tank Overfill	65	325	On ground, 250 feet northwest along curb and gutter	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 250 feet northwest along curb and gutter	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	54	54	Exact direction unknown, anticipated to be northwest toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 37	Zable Stadium	298	Tank Overfill	65	65	On ground, 500 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 500 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	298	298	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 38	West Utility Plant	1,039	Tank Overfill	65	65	On ground, 270 feet northwest to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 270 feet northwest to stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	1,039	1,039	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 39	West Utility Plant	10,000	Tank Overfill	65	65	On ground, 370 northwest to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 370 feet northwest to stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	10,000	10,000	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 40	DuPont Hall	80	Tank Overfill	65	65	On ground, 300 feet southeast to stream	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 300 feet southeast to stream	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	80	80	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 43	Blow Hall Generator	2,755	Tank Overfill	65	65	On ground, 300 feet southwest to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, 300 feet southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	2,755	2,755	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
UNDERGROUND STORAGE TANKS								
Tank 29 and 30	SWEM Heating Plant	2 x 15,000 = 30,000	Tank Overfill	65	325	50 or 500 feet on ground or pavement southwest to catch basin	Catchment basins around fill ports\	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	50 or 500 feet on ground or pavement southwest to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	0.008	81	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 31	Power Plant - Alt Fuel	20,000	Tank Overfill	65	325	On ground, approximately 100 feet south to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On ground, approximately 100 feet south to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	0.008	81	On ground, approximately 100 feet south to catch basin	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 32	Law School - Alt Fuel	20,001	Tank Overfill	65	325	On ground, southeast to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	On pavement, southeast to catch basin to stormwater BMP	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	0.008	81	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance
Tank 47	Facilities Maintenance	8,000	Tank Overfill	65	325	100 feet southwest over ground and pavement to catch basin	None	Constant surveillance during oil unloading operations
			Unloading Rupture	65	325	100 feet southwest over ground and pavement to catch basin	Portable catch basin covers installed and containment berms erected around tanker truck	Constant surveillance during oil unloading operations
			Tank Leakage or Rupture	0.008	81	Exact direction unknown, anticipated to be west toward Lake Matoaca	Double-walled tanks with interstitial monitoring	Regular tank inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
TRANSFORMERS								
Transformers	See Figure 2-2B	Varies, assumed >55	Tank Leakage or Rupture	unknown	unknown	varies	varies	Dominion Power is the owner/operator and provides tank system inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
ELEVATORS - HYDRAULIC RESERVOIRS								
--	Admissions	160	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Alumni House	90	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Andrews Hall	50	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Blow Hall	110	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Campus Center (Freight)	80	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Campus Center (Passenger)	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Cohen Career Center	42.3	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Commons	120	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	DuPont Hall	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Ewell Hall	170	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Fraternities	68 (x11)	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Hugh Jones Hall	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Hunt Hall	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	ISC No. 1	232	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	ISC No. 2	176	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	ISC No. 3	under construction						
--	James Blair Hall	140	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Jamestown Dormitory North	240	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Jamestown Dormitory South	240	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Laycock Center	82	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Marshall-Wythe Law Library #1	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Marshall-Wythe Law Library #2	72	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Marshall-Wythe Law School	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	McGlothlin Street Hall	250	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Miller Hall No.1 (Freight)	207	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Miller Hall No.2	107	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Miller Hall No.3	107	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Millington Hall	220	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
--	Morton Hall	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Muscarelle Museum of Art	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	One Tribe Place #6	80	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Parking Deck Garage	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Parking Deck Campus Police	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Phi Beta Kappa Memorial Hall	220	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Plumeri Field	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Recreational Sports Center	160	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Sadler Center (Freight)	110	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Sadler Center (Passenger 1)	110	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Sadler Center (Passenger 2)	110	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	School of Education No. 1	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	School of Education No. 2	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	School of Education No. 3	115	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Small Hall No. 1	85	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Small Hall No. 2	200	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Swen Library 1	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Swen Library 2	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Swen Library 3	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Swen Library 4	310	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Swen Library 5	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Tennis Center	110	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Trinkle Hall	120	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Tucker Hall	100	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Tyler Hall	under construction						
--	Washington Hall	160	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	William & Mary Hall	150	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Yates Hall	130	Tank Leakage or Rupture	unknown	unknown	To concrete floor within room	Concrete floor and walls provide containment, no floor drains	Regular tank inspection and maintenance
--	Zable Stadium	under construction						

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
DRUM STORAGE								
Used Oil Drum Storage	Behind Trades Shop	Two 55-gal drums	Rupture during removal	55	55	To spill containment pallets	Spill containment pallets	Regular removal, and proper removal procedures (by Contractor)
			Drum Leakage	1	55	To spill containment pallets	Spill containment pallets	

Tank ID/ Source	Location	Total Volume (gal)	Type of Failure	Discharge Rate (gpm)	Predicted Volume Released (gal)	Direction of Spill Flow	Secondary Containment System	Spill Prevention Practices/Procedures
COOKING OIL AND GREASE CONTAINERS								
Grease Trap 1	Commons Dining Center	1000 max capacity (300 grease)	Rupture during grease removal	n/a	n/a			Regular grease removal and proper removal procedures (by Contractor)
			Tank Leakage	0.008	1000	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, precast reinforced concrete unit	
Grease Trap 2	Market Place Café	20 max capacity (5 grease)	Rupture during grease removal	n/a	n/a			
			Tank Leakage	0.008	20	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, steel unit	
Grease Trap 3	Daily Grind	15 max capacity (5 grease)	Rupture during grease removal	n/a	n/a			
			Tank Leakage	0.008	15	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, plastic unit	
Grease Trap 4	Mill Hall (School of Business)	2000 max capacity (600 grease)	Rupture during grease removal	n/a	n/a			
			Tank Leakage	0.008	2000	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, precast reinforced concrete unit	
Grease Trap 5	Cosi's	10 max capacity (3 grease)	Rupture during grease removal	n/a	n/a			
			Tank Leakage	0.008	10	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, stainless steel unit	
Grease Trap 6	Sadler Center	100 max capacity (30 grease)	Rupture during grease removal	n/a	n/a	On ground, approximately 100 feet to catch basin		
			Tank Leakage	0.008	100	Exact direction unknown, anticipated to be west toward Lake Matoaca	None. Underground, stainless steel unit	

Notes:

1 The volume of the worst-case overfill/unloading pipe rupture was estimated by calculating the estimated flow delivery rate (typically a maximum of 65 gallons per minute for all tanks, by the maximum time in which it would take a delivery person to notice the overfill (assume to be 5 minutes). A tank rupture involving the instantaneous release of the entire volume of the tank is considered to be worst-case scenario evaluated for ASTs.

2 A leakage rate of 0.5 gallons per hour was assumed the maximum leakage rate from USTs. A release is not expected from the double-walled tanks, given the presence of leak detection equipment. However, a worst-case scenario of a leak going undetected for a period of one week was assumed. It has been assumed that leaks from other USTs on the campus could go undetected for up to one month.

3 The delivery truck uses a metered delivery system and after sounding each tank, the delivery person programs the number of gallons to be pumped into a tank, so that when the volume is reached, the delivery pump automatically shuts off.

4 Tank or pipe ruptures are typically expected to be leaks caused by deterioration, corrosion, or improper maintenance, etc. While catastrophic failures are possible, proper maintenance and inspections of the tanks and piping will greatly reduce the likelihood of such occurrences.

5 The College shall use necessary manpower and materials such as temporary booms, absorbents, and drain blocks to contain and/or control spills within the campus that may occur at undiked vessels, such as hydraulic reservoirs, grease vessels, and electrical transformers.

APPENDIX G

DOT Regulations

49 CFR 177.834 - General requirements.

§ 177.834 General requirements.

(a) ***Packages secured in a motor vehicle.*** Any package containing any hazardous material, not permanently attached to a motor vehicle, must be secured against shifting, including relative motion between packages, within the vehicle on which it is being transported, under conditions normally incident to transportation. Packages having valves or other fittings must be loaded in a manner to minimize the likelihood of damage during transportation.

(b) Each package containing a hazardous material bearing package orientation markings prescribed in § 172.312 of this subchapter must be loaded on a transport vehicle or within a freight container in accordance with such markings and must remain in the correct position indicated by the markings during transportation.

(c) ***No smoking while loading or unloading.*** Smoking on or about any motor vehicle while loading or unloading any Class 1 (explosive), Class 3 (flammable liquid), Class 4 (flammable solid), Class 5 (oxidizing), or Division 2.1 (flammable gas) materials is forbidden.

(d) ***Keep fire away, loading and unloading.*** Extreme care shall be taken in the loading or unloading of any Class 1 (explosive), Class 3 (flammable liquid), Class 4 (flammable solid), Class 5 (oxidizing), or Division 2.1 (flammable gas) materials into or from any motor vehicle to keep fire away and to prevent persons in the vicinity from smoking, lighting matches, or carrying any flame or lighted cigar, pipe, or cigarette.

(e) ***Handbrake set while loading and unloading.*** No hazardous material shall be loaded into or on, or unloaded from, any motor vehicle unless the handbrake be securely set and all other reasonable precautions be taken to prevent motion of the motor vehicle during such loading or unloading process.

(f) ***Use of tools, loading and unloading.*** No tools which are likely to damage the effectiveness of the closure of any package or other container, or likely adversely to affect such package or container, shall be used for the loading or unloading of any Class 1 (explosive) material or other dangerous article.

(g) [Reserved]

(h) ***Precautions concerning containers in transit; fueling road units.*** Reasonable care should be taken to prevent undue rise in temperature of containers and their contents during transit. There must be no tampering with such container or the contents thereof nor any discharge of the contents of any container between point of origin and point of billed destination. Discharge of contents of any container, other than a cargo tank or IM portable tank, must not be made prior to removal from the motor vehicle. Nothing contained in this paragraph shall be so construed as to prohibit the fueling of machinery or vehicles used in road construction or maintenance.

(i) ***Attendance requirements—***

(1) ***Loading.*** A cargo tank must be attended by a qualified person at all times when it is being loaded. The person who is responsible for loading the cargo tank is also responsible for ensuring that it is so attended.

(2) ***Unloading.*** A motor carrier who transports hazardous materials by a cargo tank must ensure that the cargo tank is attended by a qualified person at all times during unloading. However, the carrier's obligation to ensure attendance during unloading ceases when:

(i) The carrier's obligation for transporting the materials is fulfilled;

(ii) The cargo tank has been placed upon the consignee's premises; and

(iii) The motive power has been removed from the cargo tank and removed from the premises.

(3) Except for unloading operations subject to §§ 177.837(d), 177.840(p), and 177.840(q), a qualified person "attends" the loading or unloading of a cargo tank if, throughout the process, he is alert and is within 7.62 m (25 feet) of the cargo tank. The qualified person attending the unloading of a cargo tank must have an unobstructed view of the cargo tank and delivery hose to the maximum extent practicable during the unloading operation.

(4) A person is "qualified" if he has been made aware of the nature of the hazardous material which is to be loaded or unloaded, he has been instructed on the procedures to be followed in emergencies, he is authorized to move the cargo tank, and he has the means to do so.

(j) Except for a cargo tank conforming to § 173.29(b)(2) of this subchapter, a person may not drive a cargo tank motor vehicle containing a hazardous material regardless of quantity unless:

(1) All manhole closures are closed and secured; and

(2) All valves and other closures in liquid discharge systems are closed and free of leaks.

(k) [Reserved]

(l) ***Use of cargo heaters when transporting certain hazardous material.*** Transportation includes loading, carrying, and unloading.

(1) ***When transporting Class 1 (explosive) materials.*** A motor vehicle equipped with a cargo heater of any type may transport Class 1 (explosive) materials only if the cargo heater is rendered inoperable by: (i) Draining or removing the cargo heater fuel tank; and (ii) disconnecting the heater's power source.

(2) ***When transporting certain flammable material—***

(i) ***Use of combustion cargo heaters.*** A motor vehicle equipped with a combustion cargo heater may be used to transport Class 3 (flammable liquid) or Division 2.1 (flammable gas) materials only if each of the following requirements are met:

(A) It is a catalytic heater.

(B) The heater's surface temperature cannot exceed 54 °C (130 °F)—either on a thermostatically controlled heater or on a heater without thermostatic control when the outside or ambient temperature is 16 °C (61 °F) or less.

(C) The heater is not ignited in a loaded vehicle.

(D) There is no flame, either on the catalyst or anywhere in the heater.

(E) The manufacturer has certified that the heater meets the requirements under paragraph (l)(2)(i) of this section by permanently marking the heater *"MEETS DOT REQUIREMENTS FOR CATALYTIC HEATERS USED WITH FLAMMABLE LIQUID AND GAS."*

(F) The heater is also marked *"DO NOT LOAD INTO OR USE IN CARGO COMPARTMENTS CONTAINING FLAMMABLE LIQUID OR GAS IF FLAME IS VISIBLE ON CATALYST OR IN HEATER."*

(G) Heater requirements under § 393.77 of this title are complied with.

(ii) ***Effective date for combustion heater requirements.*** The requirements under paragraph (l)(2)(i) of this section govern as follows:

(A) Use of a heater manufactured after November 14, 1975, is governed by every requirement under (l)(2)(i) of this section;

(B) Use of a heater manufactured before November 15, 1975, is governed only by the requirements under (l)(2)(i) (A), (C), (D), (F) and (G) of this section until October 1, 1976; and

(C) Use of any heater after September 30, 1976, is governed by every requirement under paragraph (l)(2)(i) of this section.

(iii) ***Restrictions on automatic cargo-space-heating temperature control devices.*** Restrictions on these devices have two dimensions: Restrictions upon use and restrictions which apply when the device must not be used.

(A) ***Use restrictions.*** An automatic cargo-space-heating temperature control device may be used when transporting Class 3 (flammable liquid) or Division 2.1 (flammable gas) materials only if each of the following requirements is met:

(*1*) Electrical apparatus in the cargo compartment is nonsparking or explosion proof.

(*2*) There is no combustion apparatus in the cargo compartment.

(*3*) There is no connection for return of air from the cargo compartment to the combustion apparatus.

(*4*) The heating system will not heat any part of the cargo to more than 54 °C (129 °F).

(*5*) Heater requirements under § 393.77 of this title are complied with.

(B) ***Protection against use.*** Class 3 (flammable liquid) or Division 2.1 (flammable gas) materials may be transported by a vehicle, which is equipped with an automatic cargo-space-heating temperature control device that does not meet each requirement of paragraph (l)(2)(iii)(A) of this section, only if the device is first rendered inoperable, as follows:

(*1*) Each cargo heater fuel tank, if other than LPG, must be emptied or removed.

(*2*) Each LPG fuel tank for automatic temperature control equipment must have its discharge valve closed and its fuel feed line disconnected.

(m) Tanks constructed and maintained in compliance with Spec. 106A or 110A (§§ 179.300, 179.301 of this subchapter) that are authorized for the shipment of hazardous materials by highway in part 173 of this subchapter must be carried in accordance with the following requirements:

(1) Tanks must be securely chocked or clamped on vehicles to prevent any shifting.

(2) Equipment suitable for handling a tank must be provided at any point where a tank is to be loaded upon or removed from a vehicle.

(3) No more than two cargo carrying vehicles may be in the same combination of vehicles.

(4) Compliance with §§ 174.200 and 174.204 of this subchapter for combination rail freight, highway shipments and for trailer-on-flat-car service is required.

(n) Specification 56, 57, IM 101, and IM 102 portable tanks, when loaded, may not be stacked on each other nor placed under other freight during transportation by motor vehicle.

(o) ***Unloading of IM and UN portable tanks.*** No person may unload an IM or UN portable tank while it remains on a transport vehicle with the motive power unit attached except under the following conditions:

(1) The unloading operation must be attended by a qualified person in accordance with the requirements in paragraph (i) of this section. The person performing unloading functions must be trained in handling emergencies that may occur during the unloading operation.

(2) Prior to unloading, the operator of the vehicle on which the portable tank is transported must ascertain that the conditions of this paragraph (o) are met.

(3) An IM or UN portable tank equipped with a bottom outlet as authorized in Column (7) of the § 172.101 Table of this subchapter by assignment of a T Code in the appropriate proper shipping name entry, and that contains a liquid hazardous material of Class 3, PG I or II, or PG III with a flash point of less than 100 °F (38 °C); Division 5.1, PG I or II; or Division 6.1, PG I or II, must conform to the outlet requirements in § 178.275(d)(3) of this subchapter.

[29 FR 18795, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967]

APPENDIX H

Monthly Inspection & Maintenance Log Sheets

Blank Forms

CY 2021

W&M GENERATOR OPERATING HOURS

Circle one	Janurary-April-July-October		
	Date	Meter Reading	Tank Level (IN INCHES)
POPULATION LAB			
South Henry Street			
GRAD. HOUSING PUMP STATION			
South Henry Street			
LAW SCHOOL			
South Henry Street			
FACILITIES MANAGEMENT			
Grigsby Lane			
POWER PLANT			
Grigsby Drive			
FACILITIES SHOPS (Natural Gas)			
Grigsby Drive			
ADMISSIONS (Natural Gas)			
Jamestown Road			
McGLOTH-ST HALL			
Landrum Drive			
LANDRUM HALL			
Landrum Drive			
ISC EAST (SBG01)			
Landrum Drive			
			common tank
ISC WEST (SBG02)			common tank
Landrum Drive			common tank
PUMPING STATION			
Landrum Drive			

SWEM LIBRARY			
Landrum Drive			
SWEM EAST (SPG01)			
Landrum Drive			
SWEM WEST (SPG02)			
Landrum Drive			
SMALL HALL- NMR			
Landrum Drive			
SMALL HALL- NEW			
Landrum Drive			
JONES HALL			
Campus Drive			
MILLER HALL (B-School)			
Ukrop Way			
LAKE MATOAKA AMPHITHEATER			
Ukops Drive			
West Utility Plant			
Campus Drive			
ADAIR HALL			
Campus Drive			
PARKING GARAGE			
Campus Drive			
DUPONT HALL			
Ukrop Way			
KECH LAB			
Wake Drive			
W&M HALL			
Campus Drive and Brooks Drive			
COMMONS DINING			
Campus Drive			

REC SPORTS			
Brooks Drive and Compton Drive			
FIRE PUMP @ REC SPORTS			
Brooks Drive and Compton Drive			
SADLER CENTER			
Gooch Drive			
ZABLE STADIUM			
Gooch Drive			
STUDENT HEALTH (Natural Gas)			
Gooch Drive			
ALUMNI HOUSE			
Richmond Road and Bright Street			
ONE TRIBE PLACE			
Richmond Road			
JAMES BLAIR			
James Blair Drive			
BLOW HALL			
James Blair Drive			
~~**SCHOOL OF EDUCATION (G001)**~~	**OUT**	**OF**	**SERVICE**
~~Montecello Drive~~	**OUT**	**OF**	**SERVICE**
SCHOOL OF EDUCATION (G002)			
Montecello Drive			
Do not add correction number			
COLLEGE APARTMENTS (Nat.Gas)			
North Boundary Street			
LAMBERT HOUSE (Natural Gas)			
Jamestown Road			

CY 2021

W&M GENERATOR OPERATING HOURS

Circle one

	September-November -December		
	Date	Meter Reading	Tank Level (By Gauge)
POPULATION LAB			
South Henry Street			
GRAD. HOUSING PUMP STATION			
South Henry Street			
LAW SCHOOL			
South Henry Street			
FACILITIES MANAGEMENT			
Grigsby Lane			
POWER PLANT			
Grigsby Drive			
FACILITIES SHOPS (Natural Gas)			
Grigsby Drive			
ADMISSIONS (Natural Gas)			
Jamestown Road			
McGLOTH-ST HALL			
Landrum Drive			
LANDRUM HALL			
Landrum Drive			
ISC EAST (SBG01)			
Landrum Drive			
			common tank
ISC WEST (SBG02)			common tank
Landrum Drive			common tank
PUMPING STATION			
Landrum Drive			

SWEM LIBRARY			
Landrum Drive			
SWEM EAST (SPG01)			
Landrum Drive			
SWEM WEST (SPG02)			
Landrum Drive			
SMALL HALL- NMR			
Landrum Drive			
SMALL HALL- NEW			
Landrum Drive			
JONES HALL			
Campus Drive			
MILLER HALL (B-School)			
Ukrop Way			
LAKE MATOAKA AMPHITHEATER			
Ukops Drive			
West Utility Plant			
Campus Drive			
ADAIR HALL			
Campus Drive			
PARKING GARAGE			
Campus Drive			
DUPONT HALL			
Ukrop Way			
KECH LAB			
Wake Drive			
W&M HALL			
Campus Drive and Brooks Drive			
COMMONS DINING			
Campus Drive			

REC SPORTS			
Brooks Drive and Compton Drive			
FIRE PUMP @ REC SPORTS			
Brooks Drive and Compton Drive			
SADLER CENTER			
Gooch Drive			
ZABLE STADIUM			
Gooch Drive			
STUDENT HEALTH (Natural Gas)			
Gooch Drive			
ALUMNI HOUSE			
Richmond Road and Bright Street			
ONE TRIBE PLACE			
Richmond Road			
JAMES BLAIR			
James Blair Drive			
BLOW HALL			
James Blair Drive			
~~**SCHOOL OF EDUCATION (G001)**~~	**OUT**	**OF**	**SERVICE**
~~Montecello Drive~~	**OUT**	**OF**	**SERVICE**
SCHOOL OF EDUCATION (G002)			
Montecello Drive			
Do not add correction number			
COLLEGE APARTMENTS (Nat.Gas)			
North Boundary Street			
LAMBERT HOUSE (Natural Gas)			
Jamestown Road			

TANK										FITTINGS																		Monitoring								
Monthly checks: Generators and AST's				Damaged rusted deteriorated			Supports deteriorated or buckled			Bolts or rivets damaged			Vents Obstructed			Fill port obstructed or damaged			Does piping show signs of leakage			Piping supports damaged or leaking			Valves, seals, or gaskets leaking			Secondary containment has liquid			Tank monitoring system inoperative			Gauges or alarms inoperative			Concrete Foundation settled or cracked		
Y				Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A
POPULATION LAB																																				
South Henry Street																																				
GRAD. HOUSING PUMP STATION																																				
South Henry Street																																				
LAW SCHOOL																																				
South Henry Street																																				
FACILITIES MANAGEMENT																																				
Grigsby Lane																																				
POWER PLANT																																				
Grigsby Drive																																				
Diesel Tank at fuel pump station																																				
Grigsby Drive																																				
McGLOTH-ST HALL																																				
Landrum Drive																																				
LANDRUM HALL																																				
Landrum Drive																																				
ISC EAST (SBG01) WEST (SBG02)																																				
Landrum Drive (combined tank)																																				
PUMPING STATION																																				
Landrum Drive																																				
SWEM LIBRARY																																				
Landrum Drive																																				
SWEM EAST (SPG01)																																				
Landrum Drive																																				
SWEM WEST (SPG02)																																				
Landrum Drive																																				

TANK										FITTINGS																		Monitoring								
Monthly checks: Generators and AST's				Damaged rusted deteriorated			Supports deteriorated or buckled			Bolts or rivets damaged			Vents Obstructed			Fill port obstructed or damaged			Does piping show signs of leakage			Piping supports damaged or leaking			Valves, seals, or gaskets leaking			Secondary containment has liquid			Tank monitoring system inoperative			Gauges or alarms inoperative			Concrete Foundation settled or cracked		
Y				Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A
SMALL HALL- NMR																																						
Landrum Drive																																						
SMALL HALL- NEW																																						
Landrum Drive																																						
JONES HALL																																						
Campus Drive																																						
MILLER HALL (B-School)																																						
Ukrop Way																																						
LAKE MATOAKA AMPHITHEATER																																						
Ukops Drive																																						
West Utility Plant																																						
Campus Drive																																						
ADAIR HALL																																						
Campus Drive																																						
PARKING GARAGE																																						
Campus Drive																																						
DUPONT HALL																																						
Ukrop Way																																						
KECH LAB																																						
Wake Drive																																						
W&M HALL																																						
Campus Drive and Brooks Drive																																						
COMMONS DINING																																						
Campus Drive																																						
REC SPORTS																																						
Brooks Drive and Compton Drive																																						
FIRE PUMP @ REC SPORTS																																						
Brooks Drive and Compton Drive																																						
SADLER CENTER																																						
Gooch Drive																																						
ZABLE STADIUM																																						
Gooch Drive																																						
ALUMNI HOUSE																																						
Richmond Road and Bright Street																																						
ONE TRIBE PLACE																																						
Richmond Road																																						

TANK										FITTINGS																					Monitoring								
Monthly checks: Generators and AST's				Damaged rusted deteriorated			Supports deteriorated or buckled			Bolts or rivets damaged			Vents Obstructed			Fill port obstructed or damaged			Does piping show signs of leakage			Piping supports damaged or leaking			Valves, seals, or gaskets leaking			Secondary containment has liquid			Tank monitoring system inoperative			Gauges or alarms inoperative			Concrete Foundation settled or cracked		
Y				**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**	**Y**	**N**	**N/A**
JAMES BLAIR																																							
James Blair Drive																																							
~~**SCHOOL OF EDUCATION (G001)**~~																																							
~~Montecello Drive~~																																							
SCHOOL OF EDUCATION (G002)																																							
Montecello Drive																																							

Comments

Monthly checks: UST's				Stained soils or dead grass present			Fill port or vents obstructed			Fill port access or vent damaged			Visible piping damaged or leaking			Valves, seals, or gaskets leaking			Secondary containment or fill port has liquid			Tank gauge & monitoring system inoperative			Product level gauge or alarm inoperative			Surface pad settled or cracked		
Y				Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A
LAW SCHOOL																														
South Henry Street																														
POWER PLANT																														
Grigsby Drive																														
Facilities Maintenance (Tank 47)																														
Gasoline Tank at fuel station																														
Grigsby Drive																														
SWEM LIBRARY																														
Landrum Drive																														
BLOW HALL (Tank 43)																														
James Blair Drive																														

Comments

Annual checks: UST's				Visuall check containment sumps for leaks/releases			Remove Liquid/debris within containment sumps.			If double walled containment sumps, check for leaks in interstial area.		
Y				Y	N	N/A	Y	N	N/A	Y	N	N/A
LAW SCHOOL												
South Henry Street												
POWER PLANT												
Grigsby Drive												
Facilities Maintenance (Tank 47)												
Gasoline Tank at fuel station												
Grigsby Drive												
SWEM LIBRARY												
Landrum Drive												
BLOW HALL (Tank 43)												
James Blair Drive												

Check for operability/sevicability: Handheld release detection ☐

Ground water bailers ☐

Tank guage sticks ☐

Comments

Completed Inspection Forms are kept on file by the Director, Operations & Maintenance

APPENDIX I

Tank Testing Reports

APPENDIX C-1

TANK SECONDARY CONTAINMENT INTEGRITY TESTING DRY TEST METHOD

Facility Name: William & Mary	Owner: Facility Hunter / Facilities Mgmt
Address: 115 Gregsby Drive	Address: 115 Gregsby Drive
City, State, Zip Code: Williamsburg, VA 23185	City, State, Zip Code: Williamsburg, VA 23185
Facility I.D. #:	Phone #: 802-254-7892
Testing Company: Vessel	Phone #: 757-221-2258 Date: 11-3-2021

This data sheet is for testing the integrity of the dry secondary containment of a underground storage tank (UST). See PEI/RP1200 Section 4.2 for the test procedure.

Tank Number	#1 UST					
Tank Material	Steel					
Product Stored	Unleaded					
Tank Capacity,* gallons	8819					
Test Start Time	1111					
Initial Vacuum Reading, inches Hg (See Table 4-1 below.)	10 Hg					
Specified Test Duration (See Table 4-1 below.)	☑ 1 hour ☐ 2 hours	☐ 1 hour ☐ 2 hours	☐ 1 hour ☐ 2 hours	☐ 1 hour ☐ 2 hours	☐ 1 hour ☐ 2 hours	☐ 1 hour ☐ 2 hours
Test End Time	1211					
Final Vacuum Reading, inches Hg	10 Hg					
Is the Annular Space Dry After the Test?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

TABLE 4-1

Vacuum, inches Hg	Capacity, gallons	Duration, hours
10	<20,000	1
	20,000+	2

Comments:

*Total tank capacity, including all compartments in a multi-compartment tank.

Tester's Name (print) R. C. Nader Tester's Signature

APPENDIX C-3

SPILL BUCKET INTEGRITY TESTING HYDROSTATIC TEST METHOD SINGLE- AND DOUBLE-WALLED VACUUM TEST METHOD

Facility Name: William & Mary		Owner: Facility Hunter / Facilities Management	
Address: 202 Richmond Road		Address: 115 Gibson Dr.	
City, State, Zip Code: Williamsburg, VA 23185		City, State, Zip Code: Williamsburg, VA 23185	
Facility I.D. #:		Phone #: 202-284-7692	
Testing Company: Essco		Phone #: 757-221-2285	Date: 11-3-2021

This procedure is to test the leak integrity of single- and double-walled spill buckets. See PEI/RP1200 Section 6.2 for hydrostatic test method, Section 6.3 for single-walled vacuum test method and Section 6.4 for double-walled vacuum test method.

Tank Number	Bird Hall					
Product Stored	Diesel					
Spill Bucket Capacity						
Manufacturer	OPW					
Construction	☑ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled
Test Type	☐ Hydrostatic ☑ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled
Spill Bucket Type	☑ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor
Liquid and debris removed from spill bucket?*	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Visual Inspection (No cracks, loose parts or separation of the bucket from the fill pipe.)	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Tank riser cap included in test?	☐ Yes ☑ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Drain valve included in test?	☐ Yes ☑ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Starting Level	38" WC					
Test Start Time	1240					
Ending Level	38" WC					
Test End Time	1241					
Test Period	1 minute					
Level Change	0					

Pass/fail criteria: Must pass visual inspection. Hydrostatic: Water level drop of less than 1/8 inch; Vacuum single-walled only: Maintain at least 26 inches water column; Vacuum double-walled: maintain at least 12 inches water column.

Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

*All liquids and debris must be disposed of properly.

Tester's Name (print) R.L. Rader Tester's Signature

APPENDIX C-5

UST OVERFILL EQUIPMENT INSPECTION
AUTOMATIC SHUTOFF DEVICE AND BALL FLOAT VALVE

Facility Name: William & Mary		Owner: Facility / Utilities Management	
Address: 262 Richmond Road		Address: 115 Graves Dr.	
City, State, Zip Code: Williamsburg, VA 23185		City, State, Zip Code: Williamsburg, VA 23185	
Facility I.D. #:		Phone #: 802-254-7492	
Testing Company: CESSCO		Phone #: 757-221-2285	Date: 11-3-2021

This data sheet is for inspecting automatic shutoff devices and ball float valves. See PEI/RP1200 Section 7 for inspection procedures.

Product Grade	Diesel					
Tank Number	Burn Hall					
Tank Volume, gallons	550					
Tank Diameter, inches	48					
Overfill Prevention Device Brand	OPW					
Type	☑ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve
AUTOMATIC SHUTOFF DEVICE INSPECTION						
1. Drop tube removed from tank?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Drop tube and float mechanisms free of debris?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Float moves freely without binding and poppet moves into flow path?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Bypass valve in the drop tube open and free of blockage (if present)?	☐ Yes ☐ No ☑ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present
5. Flapper adjusted to shut off flow at 95% capacity?*	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to any item in Lines 1-5 indicates a test failure.						
BALL FLOAT VALVE INSPECTION**						
1. Tank top fittings vapor- tight and leak-free?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Ball float cage free of debris?		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Ball free of holes and cracks and moves freely in cage?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Vent hole in pipe open and near top of tank?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
5. Ball float pipe proper length to restrict flow at 90% capacity?***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to any item in Lines 1-5 indicates a test failure.						
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Comments:						

* Use manufacturer's suggested procedure for determining if automatic shutoff device will shut off flow at 95% capacity.
** If a ball float is found to fail the inspection, another method of overfill must be used.
*** Use manufacturer's suggested procedure for determining if flow restriction device will restrict flow at 90% capacity.

Tester's Name (print) J.L. RADER Tester's Signature

APPENDIX C-3

SPILL BUCKET INTEGRITY TESTING HYDROSTATIC TEST METHOD SINGLE- AND DOUBLE-WALLED VACUUM TEST METHOD

Facility Name: William & Mary	Owner: Facility Owner/Facilities Mgmt		
Address: 115 Graves Drive	Address: 115 Graves Drive		
City, State, Zip Code: Williamsburg, VA 23185	City, State, Zip Code: Williamsburg, VA 23185		
Facility I.D. #:	Phone #: 802-254-2092		
Testing Company: Ossco	Phone #: 757-221-2285	Date: 1-3-2021	

This procedure is to test the leak integrity of single- and double-walled spill buckets. See PEI/RP1200 Section 6.2 for hydrostatic test method, Section 6.3 for single-walled vacuum test method and Section 6.4 for double-walled vacuum test method.

Tank Number	#1 UST					
Product Stored	Unleaded					
Spill Bucket Capacity						
Manufacturer	OPW					
Construction	☑ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled	☐ Single-walled ☐ Double-walled
Test Type	☐ Hydrostatic ☑ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled	☐ Hydrostatic ☐ Vacuum ☐ Single-walled ☐ Double-walled
Spill Bucket Type	☑ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor	☐ Product ☐ Vapor
Liquid and debris removed from spill bucket?*	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Visual Inspection (No cracks, loose parts or separation of the bucket from the fill pipe.)	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Tank riser cap included in test?	☐ Yes ☑ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Drain valve included in test?	☐ Yes ☑ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Starting Level	30" WC					
Test Start Time	0928					
Ending Level	38" WC					
Test End Time	0930					
Test Period	1 minute					
Level Change	8" WC					

Pass/fail criteria: Must pass visual inspection. Hydrostatic: Water level drop of less than 1/8 inch; Vacuum single-walled only: Maintain at least 26 inches water column; Vacuum double-walled: maintain at least 12 inches water column.

Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

*All liquids and debris must be disposed of properly.

Tester's Name (print) R.L. Lacz Tester's Signature

APPENDIX C-5

UST OVERFILL EQUIPMENT INSPECTION
AUTOMATIC SHUTOFF DEVICE AND BALL FLOAT VALVE

Facility Name: WILLIAM & MARY			Owner: FARLEY CENTER / FACILITIES MGMT			
Address: 115 GRIGGS B4 DRIVE			Address: 115 GRIGGS B4 DRIVE			
City, State, Zip Code: WILLIAMSBURG, VA 23185			City, State, Zip Code: WILLIAMSBURG, VA 23185			
Facility I.D. #:			Phone #: 302-284-7892			
Testing Company: OPW			Phone #: 757-221-2881 Date: 11-3-2021			
This data sheet is for inspecting automatic shutoff devices and ball float valves. See PEI/RP1200 Section 7 for inspection procedures.						
Product Grade	UNLEADED					
Tank Number	#1 UST					
Tank Volume, gallons	8819					
Tank Diameter, inches	95.5					
Overfill Prevention Device Brand	OPW					
Type	☑ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve	☐ Automatic Shutoff Device ☐ Ball Float Valve
AUTOMATIC SHUTOFF DEVICE INSPECTION						
1. Drop tube removed from tank?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Drop tube and float mechanisms free of debris?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Float moves freely without binding and poppet moves into flow path?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Bypass valve in the drop tube open and free of blockage (if present)?	☐ Yes ☐ No ☑ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present	☐ Yes ☐ No ☐ Not Present
5. Flapper adjusted to shut off flow at 95% capacity?*	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to any item in Lines 1-5 indicates a test failure.						
BALL FLOAT VALVE INSPECTION**						
1. Tank top fittings vapor- tight and leak-free?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Ball float cage free of debris?		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Ball free of holes and cracks and moves freely in cage?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Vent hole in pipe open and near top of tank?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
5. Ball float pipe proper length to restrict flow at 90% capacity?***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to any item in Lines 1-5 indicates a test failure.						
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Comments:						

* Use manufacturer's suggested procedure for determining if automatic shutoff device will shut off flow at 95% capacity.
** If a ball float is found to fail the inspection, another method of overfill must be used.
*** Use manufacturer's suggested procedure for determining if flow restriction device will restrict flow at 90% capacity.

Tester's Name (print) R. L. FADEL Tester's Signature

APPENDIX C-7

AUTOMATIC TANK GAUGE OPERATION INSPECTION

Facility Name: WILLIAM & MARY	Owner: EARLY HUNTER / FACILITIES MGMT
Address: 115 GILLEY DRIVE	Address: 115 GILLEY DRIVE
City, State, Zip Code: WILLIAMSBURG, VA 23185	City, State, Zip Code: WILLIAMSBURG, VA 23185
Facility I.D. #:	Phone #: 862-284-7842
Testing Company: DESIGN	Phone #: 757-221-2288 Date: 11-3-2021

This procedure is to determine whether the ATG is operating properly. See PEI/RP1200, Section 8.2 for the inspection procedure. This procedure is applicable to tank level monitor stems that touch the bottom of the tank when in place.

Tank Number	#1 UST			
Product Stored	(UNLEADED)			
ATG Brand and Model				
1. Tank Volume, gallons	8000			
2. Tank Diameter, inches	95.5			
3. After removing the ATG from the tank, has it been inspected and any damaged or missing parts replaced?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Float moves freely on the stem without binding?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
5. Does the fuel float level agree with the value programmed into the console?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
6. Does the water float level agree with the value programmed into the console?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
7. Inch level from bottom of stem when 90% alarm is triggered.	86.5"			
8. Does inch level at which the overfill alarm activates correspond with value programmed in the gauge?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
9. Inch level from the bottom when the water float first triggers an alarm.	2"			
10. Does inch level at which the water float alarm activates correspond with value programmed in the gauge?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If any answers in Lines 3, 4, 5, or 6 are "No," the system has failed the test.				
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

BATTERY TESTED. 3.5V

TLS-350

Tester's Name R. L. PARKER Tester's Signature

LIQUID SENSOR FUNCTIONALITY TESTING

Facility Name: WILLIAMS MAZA	Owner: FARGO WATER/FACILITIES MGMT
Address: 115 GRIGGS BY DRIVE	Address: 115 GRIGGS BY DRIVE
City, State, Zip Code: WILLIAMSBURG, VA 23185	City, State, Zip Code: WILLIAMSBURG, VA 23185
Facility I.D. #:	Phone #: 862-284-7793
Testing Company: [illegible]	Phone #: 757-221-2288 Date: 1-3-2021

This procedure is to determine whether liquid sensors located in the interstitial space of UST systems are able to detect the presence of water and fuel. See PEI/RP1200 Section 8.3 for the test procedure.

	L1	L2					
Sensor Location	STP SUMP	FUEL CAR					
Product Stored	UNLEADED	UNLEADED					
Type of Sensor	☐ Discriminating ☑ Non-discriminating	☐ Discriminating ☑ Non-discriminating	☐ Discriminating ☐ Non-discriminating	☐ Discriminating ☐ Non-discriminating	☐ Discriminating ☐ Non-discriminating	☐ Discriminating ☐ Non-discriminating	☐ Discriminating ☐ Non-discriminating
Test Liquid	☑ Water ☐ Product	☑ Water ☐ Product	☐ Water ☐ Product	☐ Water ☐ Product	☐ Water ☐ Product	☐ Water ☐ Product	☐ Water ☐ Product
Is the ATG console clear of any active or recurring warnings or alarms regarding the leak sensor? If the sensor is in alarm and functioning, indicate why.	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Is the sensor alarm circuit operational?	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Has sensor been inspected and in good operating condition?	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
When placed in the test liquid, does the sensor trigger an alarm?	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
When an alarm is triggered, is the sensor properly identified on the ATG console?	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Any "No" answers indicates the sensor fails the test.							
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

Tester's Name (print) R. L. RADER Tester's Signature [signature]

APPENDIX C-9

MECHANICAL AND ELECTRONIC LINE LEAK DETECTORS PERFORMANCE TESTS

Facility Name: College of William + Mary		Owner: College of William + Mary	
Address: 115 Gingsby Dr		Address:	
City, State, Zip Code: Williamsburg VA 23185		City, State, Zip Code:	
Facility I.D. #:		Phone #:	
Testing Company: Oil Equipment Sales & Service Co		Phone #: 757 543-3546	Date: 11/3/21

This data sheet can be used to test mechanical line leak detectors (MLLD) and electronic line leak detectors (ELLD) with submersible turbine pump (STP) systems. See PEI/RP1200 Sections 9.1 and 9.2 for test procedures.

Line Number	#1					
Product Stored	Gasoline					
Leak Detector Manufacturer	Federal					
Leak Detector Model	STP-MLD					
Type of Leak Detector	☑ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD
MLLD (ALL PRESSURE MEASUREMENTS ARE MADE IN PSIG)						
STP Full Operating Pressure	26					
Check Valve Holding Pressure	18					
Line Resiliency (ml) (line bleed back volume as measured from check valve holding pressure to 0 psig)	130 mL					
Step Through Time in Seconds (time the MLLD hesitates at metering pressure before going to full operating pressure as measured from 0 psig with no leak induced on the line)	35 sec					
Metering Pressure (STP pressure when simulated leak rate 3 gph at 10 psig)	10 PSI					
Opening Time in Seconds (the time the MLLD opens to allow full pressure after simulated leak is stopped)	2 sec					
Does the STP pressure remain at or below the metering pressure for at least 60 seconds when the simulated leak is induced?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Does the leak detector reset (trip) when the line pressure is bled off to zero psig?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Does the STP properly cycle on/off under normal fuel system operation conditions?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" answer to either of the above questions indicates the MLLD fails the test.						
ELLD (ALL PRESSURE MEASUREMENTS ARE MADE IN PSIG)						
STP Full Operating Pressure						
How many test cycles are observed before alarm/shutdown occurs?						
Does the simulated leak cause an alarm?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" answer to the above question indicates the ELLD fails the test.						
Does the simulated leak cause an STP shutdown?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Comments:						

Tester's Name (print) Case Perry Tester's Signature

SHEAR VALVE OPERATION INSPECTION

Facility Name: WILLIAM & MARY	Owner: BARLEY HUNTER / FACILITIES MGMT
Address: 115 GREGORY DRIVE	Address: 110 GREGORY DRIVE
City, State, Zip Code: WILLIAMSBURG, VA 23185	City, State, Zip Code: WILLIAMSBURG, VA 23185
Facility I.D. #:	Phone #: 502-284-7892
Testing Company: JESSE	Phone #: 757-221-2288 DATE: 11-3-2021

This data sheet is for inspecting shear valves located inside dispensers. See PEI/RP1200, Section 10 for the inspection procedure.

Product Grade	UNLEADED								
Dispenser ID#	# 1								
Shear ValveType (Product/Vapor)	PRODUCT								
1. Is the shear valve rigidly anchored to the dispenser box frame or dispenser island?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Is the shear section positioned between ½ inch above or below the top surface of the dispenser island?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Is the lever arm free to move?	☑ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
4. Does the lever arm snap shut the poppet valve?	☑ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
5. Can any product be dispensed when the product shear valve is closed?	☐ Yes ☑ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
A "No" to Lines 1-4 or a "Yes" for Line 5 indicates a test failure.									
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

Tester's Name R. L. RAGER

Tester's Signature

APPENDIX C-10

APPENDIX C-11

EMERGENCY STOP SWITCH OPERATION INSPECTION

Facility Name: WILLIAM & MARY	Owner: FACILITIES MGMT
Address: 115 GRIFFIN DRIVE	Address: 115 GRIFFIN DRIVE
City, State, Zip Code: WILLIAMSBURG, VA 23185	City, State, Zip Code: WILLIAMSBURG, VA 23185
Facility I.D. #:	Phone #: 502-254-7092
Testing Company: [illegible]	Phone #: 757-221-2285 Date: 11-3-2025

This procedure is to verify the operation of all emergency stop switches/buttons (E-stops). Each E-stop must disconnect power to dispensers, submersible turbine pumps (STPs) and all non-intrinsically safe electrical equipment in classified areas. Test each E-stop separately. See PEI/RP1200, Section 11 for the inspection procedure.

E-stop Number or ID	EASTSIDE PUMP					
Location	STAIRWAY LANDSCAPE SIDE					
1. E-stops labeled and located where easily accessible?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. System is fully powered and in normal operating condition?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. After activating E-stop, power has been disconnected from:						
3a. All dispensing devices on all islands?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3b. All STPs for all fuel grades?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3c. All power, control and signal circuits associated with the dispensing devices and the STPs?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3d. All other non-intrinsically safe electrical equipment in classified areas surrounding fuel dispensing devices?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. All intrinsically safe electrical equipment remains energized after E-stop activation?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
5. After testing, has E-stop been reset and power reestablished to normal operating condition?	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to lines 3a-3d indicates a test failure.						
Test Results	☑ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments:

Tester's Name R.L. RADER Tester's Signature

Site Name	College of William & Mary	Dispatch Number	43894	Date	11/3/2021
Site Address	115 Grigsby Dr.	Point of Contact:	Farly Hunter		
City, State, Zip	Williamsburg, VA 23185	Contact Phone #	cell 862-284-7092		
Phone	757-221-2288	Pump make & Type	FePetro STP & LD, Gasboy Dispenser		
Operator	Same	Cover over lines:	Concrete		
Facility ID		Burial Depth	4 feet		

OIL EQUIPMENT
SALES & SERVICE CO, INC.
4331 Bainbridge Blvd
Chesapeake, VA 23324
757-543-3596

Petrotite Line Test Form

PROD TYPE	TIME MILITARY	LOG TEST PROCEDURES, AMBIENT TEMPERATURE,	PRESSURE psi OR kPa		VOLUME READING		NET CHANGE	REMARKS SIZE, LENGTH & TYPE OF LINE, # FLEX CONNECTORS, CONCLUSIONS, REPAIRS AND COMMENTS
			BEFORE	AFTER	BEFORE	AFTER		
UNLEADED	10:45 AM	Pre Test	0	75	na	na	an	Bleed back Calculations
UNLEADED	11:00 AM	Bleed Back Test	0	50	0.07600	0.06600	0.01000	Measured Bleed Back .0100
UNLEADED	11:05 AM	Start Unleaded Line Test	50	50		0.06600		Bleed Back Less than .05 OK
UNLEADED	11:10 AM	Continue Test	50	50	0.06600	0.06600	0.00000	
UNLEADED	11:15 AM	Continue Test	50	50	0.06600	0.06600	0.00000	
UNLEADED	11:20 AM	Continue Test	50	50	0.06600	0.06600	0.00000	
UNLEADED	11:25 AM	Continue Test	50	50	0.06600	0.06600	0.00000	Net Change Per Half Hour 0.000 Gal
UNLEADED	11:30 AM	Continue Test	50	50	0.06600	0.06600	0.00000	
UNLEADED	11:35 AM	End line test	50	50	0.06600	0.06600	0.00000	LINE TEST RESULTS PASSES TIGHT

Mechanical Leak Detector Test Results

Tank# / Product	Leak Detector Type	Metering Pressure (PSI)	Metering Time (Sec.)	Full Operating Pressure	Metering Pressure @ 3GPH Test Leak	Bleed Back Vol. Ml	Holds Search Position With 3 GPH Leak for 1 Min.
UNL	Fe Petro	12 PSI	3 sec	26 PSI	10 PSI	110 ML	PASS

Line Test Performed By: Carl Perry

Signature: Carl A Perry

Test Date 11/3/2021

Certification Number:
6fd8e8c4 exp 2/20/22

APPENDIX J

SPCC Training Plan Outline
and Participant Record

SPCC
(Spill Prevention Control & Countermeasures)

- Federal Regulation overseen by the EPA
- Why are we required to have a plan?
    - We meet the storage and consumption requirements of the regulation and could reasonably discharge oil to navigable waters.
    - Navigable waters by the EPAs definition are very broad.
    - "Oil" as defined by the EPA includes many items. The item may be food grade or biodegradable, but it is still considered oil.

- Oil storage locations on site
    - Above Ground Storage Tanks (ASTs)
    - Underground Storage Tanks (USTs)
    - Oil Filled Transformers in the Power Plant
    - Hydraulically Operated Elevators
    - Cooking Oil Grease (Grease Traps)
    - Mobile Bulk Storage (on pickup truck)

- Best Management Practices to help prevent oil spills
    - Regular inspections of tanks and containers
    - Testing of spill prevention controls
    - Cleaning up small leaks and spills in a timely manner
    - Notification to appropriate personnel if there is a spill or issue
    - Containers are stable and lids securely fastened
    - Keep storage area clean
    - Understand the proper usage, storage, and transfer of material

- Oil Deliveries
    - The facilities maintenance office shall be notified of any delivery truck on site
    - All deliveries shall be accompanied by a facilities employee
    - Be prepared to stop the flow of oil if necessary, contact appropriate personnel, contain and cleanup spills

- Spill Response Equipment
    - Spill response equipment is located in the Facilities Management Storeroom. This equipment includes absorbent material, preassembled cleanup kits, absorbent pads, and other necessary personnel protective equipment (PPE).
    - There are drums, overpacks, and large absorbent booms stored in the old rifle range.
    - The power plant and SWEM library have cleanup materials.

- Spill Response Procedure
    - Example: You notice a spill of oil coming from a AST, the following steps shall be taken
        1. Assess the scene from a safe distance
        2. Call W&M Police and inform them of the situation (i.e. location, amount spilled, color, immediately hazardous conditions, approaching a ditch/storm drain, etc)
        3. Request assistance if necessary, evacuate all persons from the spill area.
        4. The W&M Police will contact the Emergency Coordinators listed in the plan
        5. Secure the spill site and cordon off the area.
        6. Keep any potential ignition source out of the area
        7. If it is safe to attempt a cleanup, don the appropriate PPE.

8. If appropriate shut any valves, pumps or equipment off.
9. Use spill cleanup materials to prevent the oil from entering storm drains, floor drains, unpaved surfaces of surface water
10. Remain at the spill area to secure the site and meet spill response personnel or the fire department

    - If the source of the spill is unknown some investigation needs to take place
    - Take the steps necessary to secure the area and oil spill. Then attempt to find the source of the spill with assistance.

All materials from the cleanup of oil spills must be collected and disposed of properly through the EH&S Department

SPCC PLAN TRAINING

Date: _____
Location: _____
Trainer: _____

Attendee Signature	Printed Name	Department	Comments

APPENDIX K

Initial Spill Information Form

College of William & Mary
P.O. Box 8975
Williamsburg, Virginia

APPENDIX K
INITIAL SPILL INFORMATION FORM

CALLER NAME _____ DATE _____

CALLER PHONE # (___) _____ LOCATION _____

1) Any injuries? _____

2) Material spilled _____

3) Amount of material spilled _____

4) Spill location _____

5) Cause of spill (eg. tank leak, overfill, etc.) _____

6) Is spill contained? _____

7) Is spill flowing off-site? _____

8) Time spill was discovered _____

9) Is a fire involved? _____

COMMENTS _____

APPENDIX L

NRC Incident Reporting Form

APPENDIX L

To be completed by Emergency Coordinator

Note: This form should not be submitted to the NRC via fax or email. It was created for use as a guide when contacting NRC.

Facility Information College of William & Mary P.O. Box 8975 Williamsburg, Virginia 23187-8795		Latitude/Longitude County Storm Water Permit#
Person completing form	Name	Phone
Person reporting spill	Name	Phone
Spill occurred/discovered	Date	Time
Spill location		
Suspected spiller (or "unknown")		
Material Released		
Initial estimated quantity released (gallons or pounds)		
Estimate of quantity released to	Land	Water
Description/Cause of Spill		

HAZARDS

MSDS Available Yes ☐ No ☐	**MSDS# or NSN**		
Haz Chemical Name	**CAS #**	**% in Material**	**Reportable Qty**

Flammable Yes ☐ No ☐	**Flash Point**	**Water Reactive** Yes ☐ No ☐	
Explosive Yes ☐ No ☐	**Corrosive** Yes ☐ No ☐		
Toxic Yes ☐ No ☐	**If toxic, method of toxicity** Inhalation ☐ Skin ☐		
Chemically Reactive Yes ☐ No ☐	**If yes, reactive with**		
Off gases/vapors Yes ☐ No ☐	**If yes, color of vapor**		
Instrument Readings pH	O_2%	H_2S%	CO_2%
LEL%	Mercury vapor (mg/m^3)	Drager Tube for	

SITE CONDITIONS

Oil sheen size (if applicable)		
Oil sheen description (if applicable)		
Sea state and weather conditions		
B.2.4.1 Sea state	B.2.4.2 Swell direction	Wind speed (kts)
B.2.4.3 Weather	B.2.4.4 Swell height	B.2.4.5 Wind direction
B.2.4.6 Tide	B.2.4.7 Air Temperature	B.2.4.8

APPENDIX L

To be completed by Emergency Coordinator

Note: This form should not be submitted to the NRC via fax or email. It was created for use as a guide when contacting NRC.

CONTAINMENT/CLEANUP ACTIONS			
Samples taken Yes ☐ No ☐	**Sample Type** Grab ☐ Split ☐ Composite ☐		
Location		Time	
Actions taken to stop release			
Actions taken to contain release			
Actions taken to clean up release			
Clean up team (indicate station or contract personnel)			
IMPACT/HEALTH THREATS			
Number of injuries/description			
Number of deaths	**Evacuation required** Yes ☐ No ☐		
Areas to be evacuated			
Property damage			
Environmental media affected			
Environmental/health threats, including areas threatened			
Preventive/corrective actions initiated			
OUTSIDE NOTIFICATIONS			
National Response Center	**Time**	**POC**	
EPA Region 3	**Time**	**POC**	
Virginia Department of Emergency Management	**Time**	**POC**	
VA Pollution Response Coordinator (DEQ-TRO)	**Time**	**POC**	
City of Williamsburg Fire Department	**Time**	**POC**	
City of Williamsburg Police Department	**Time**	**POC**	
Newport News Hazardous Waste Response Team	**Time**	**POC**	
Emergency Response/Spill Cleanup Team	**Time**	**POC**	

APPENDIX M

William & Mary

2018-2024 Six-Year Capital Plan

(Future Planning)

COLLEGE OF WILLIAM AND MARY
RESOLUTION TO APPROVE
2018-2024 SIX-YEAR CAPITAL PLAN

WHEREAS, in the late spring of each odd numbered year, the Governor, through the Department of Planning and Budget (DPB), requests that higher education institutions develop their next (rolling) six-year capital outlay plan; and

WHEREAS, the university has developed its proposed capital outlay six year plan for the biennia 2018-2024 based on the Governor's historical guidance regarding such; and

WHEREAS, the 2018-2024 Capital Plan was developed and informed by application of the 2015 Campus Master Plan, which itself reflects the thorough and robust review of programs, facilities, infrastructure, adaptability, adjacency, replacement, and highest and best use as determined during master planning; and

WHEREAS, biennium 2018-2020 will be the focus of potential action by the 2018 legislature, and thus reflects the consistent, rolling capital priorities of the university as well as the success of projects that were funded by the 2016 General Assembly; and

WHEREAS, the university provided the Administration, Buildings & Grounds Committee of the Board of Visitors with a preliminary draft six year capital plan at its February, 2017, meeting; and

WHEREAS, the university expects to make submittals on the 2018-2024 Capital Plan to the Department of Planning & Budget (DPB), the Department of Treasury (TRS), and State Council of Higher Education (SCHEV) from June through September of 2017; and

WHEREAS, in the course of that process, university staff will develop and refine project budgets, which may adjust the estimates reflected in this resolution;

THEREFORE, BE IT RESOLVED, That the Board of Visitors approves the 2018-2024 Capital Outlay Plan as recommended; and

BE IT FURTHER RESOLVED, That the Board authorizes the Senior Vice President for Finance and Administration to take the actions necessary to fulfill the College's response to the Governor and supporting agencies with respect to the 2018-2024 Capital Plan submittal.

2018-2020 BIENNIUM

PRIORITY	PROJECT TITLE	FUNDING
1a	**Major Repairs and Maintenance Reserve (MR)** Always the first capital priority in any institution's biennial plan, the MR request funds only newly identified major repair & replacement projects, and does not represent the College's deferred maintenance backlog, nor is it intended to address building system improvements, except as may be incidental to the replacement & repair. Typical projects include replacement of mechanical systems (HVAC, plumbing, electrical, etc.); built-in equipment and components; foundations, roofs, walls, and windows; and interior finishes, including floors and handicapped access.	$5,190,000 GF
2	**Construct: ISC 4** Supports construction of a 124,000 GSF facility that will house Math, Computational Science, Kinesiology, and Engineering. The new facility will be sited adjacent to the former location of Millington Hall, and will tie to ISC 1, requiring the renovation of approximately 10,000 GSF. The 2016 General Assembly added the project to the Commonwealth's long term capital plan, and authorized planning, using university funds.	$74,916,000 GF
3	**Construct: Population Lab** Supports the demolition and reconstruction of a new animal laboratory to replace the heavily- used lab and aviary adjacent to the Tennis Center. The project will meet national standards, improving College standing for National Science Foundation grants. This facility supports primarily biology and psychology curriculum and research.	$8,484,000 GF
4	**Construct: Fine & Performing Arts Complex, Phase 3** Supports phase 3 of the "Arts Quarter", which is the improvement of Andrews Hall for Fine Arts and Art History, and the construction of additional space to handle the industrial arts, such as sculpture.	$39,080,000 GF
5	**Construct: Sadler Center, West Addition** Supports 76,000 GSF addition to the Sadler Center to house many of the Student Affairs functions currently housed in the old Campus Center. This addition is in accordance with the College's 2015 Campus Master Plan. Preplanning for this project is currently underway.	$37,742,000 NGF

6 **Improve: Swem Library** **$10,715,000 GF**
Provides renovation of 26,000 GSF on the ground level of Swem Library in support of: 1) the "Studio for Teaching and Research" including space for the Center for Liberal Arts; 2) the Botetourt Gallery and theater; 3) a new home for "Content Services," including Digital Collections and Inter-Library Loans; and 4) Omohundro research space.

7 **Construct: Sanitary Sewer** **$3,477,000 GF**
Supports an expansion and replacement project to improve sewage pumping capacity due to increased demand created by construction growth throughout the South (New) Campus and Jamestown Road corridor. The project will accommodate future growth from Integrated Science Centers, and the Arts Quarter. This project will also relieve compression upon City of Williamsburg systems.

8 **Improve: Handicapped Access** **$5,416,000 GF**
The president of the university has appointed a task force on accessibility: the Disability Working Group. This group will examine the myriad of issues surrounding compliance, including making recommendations to support this request.

9 **Improve: Lake Matoaka Dam** **$3,565,000 GF**
Augments the 2012 appropriation of $3.169M (18003) with additional funds needed to address current Commonwealth requirements regarding Dam strength, including the ability to withstand 7' overtopping in a worst case flood scenario. Total project cost is estimated to be $6,734,000.

10 **Renovate: Dormitories** **$11,000,000 NGF**
Continues the university's third decade of investment in student residence hall improvements. Supports renovation projects for various dormitories, dependent on priority, urgency, and debt (fee) capacity. Next on the priority list is Green & Gold Village, and Botetourt Complex.

2020-2022 BIENNIUM

1b **Maintenance Reserve** **$5,995,000 GF**
Always the first capital priority in any institution's biennial plan, the MR request funds only newly identified major repair & replacement projects, and does not represent the College's deferred maintenance backlog, nor is it intended to address building system improvements, except as may be incidental to the replacement & repair.

11 **Renovate: Ewell Hall** **$21,565,000 GF**
The former home to Music, and the original Phi Beta Kappa Hall, much of Ewell will be vacated upon the completion of the new music facility (Fine Arts Phase 1) in summer of 2020. Preplanning to create a general classroom "swing-space" building would be an appropriate first step in design.

12 **Renovate: Adair Hall** **$20,744,000 NGF**
With the move of Kinesiology to ISC 4, Adair becomes a support facility for Rec Sports and Athletics, per the 2015 Campus Master Plan. This renovation will restore and rehabilitate the locker rooms, restore the main gym, and replace obsolete building systems with modern systems, including fire safety.

13 **Construct: Jamestown Place** **$46,666,000 GF**
Upon completion of the Sadler West Addition, and in accordance with the 2015 Campus Master Plan, a new facility or facilities, "Jamestown Place," will replace the dilapidated Campus Center, Atrium, and Trinkle Hall to create a new mixed use and administrative edge along Jamestown Road.

14 **Improve William & Mary Hall** **$34,864,000 NGF**
Supports total building systems renovation, fire safety and ADA compliance.

15 **Renovate: Dormitories** **$14,900,000 NGF**
Continues the university's third decade of investment in student residence hall improvements. Supports renovation projects for various dormitories, dependent on priority, urgency, and debt (fee) capacity. Next on the priority list are Green & Gold Village, and Botetourt Complex.

2022-2024 BIENNIUM

1c **Maintenance Reserve** **$6,000,000 GF**
Always the first capital priority in any institution's biennial plan, the MR request funds only newly identified major repair & replacement projects, and does not represent the College's deferred maintenance backlog, nor is it intended to address building system improvements, except as may be incidental to the replacement & repair.

16 **Renovate: Washington Hall** **$25,399,000 GF**
Home to the departments of Anthropology and Modern Languages & Literatures, Washington Hall was last renovated in 1991. Using Ewell Hall as swing space, Washington Hall will be renovated and reconfigured to suit the latest pedagogic and research technologies.

17 **Replace: Jones & Morton Halls** **$51,266,000 GF**
In accordance with the 2015 Campus Master Plan, Jones and Morton are demolished in favor of a single classroom-intensive building with the latest in high tech pedagogy.

18 **Construct: Dillard Athletic Support Facilities** **$14,797,000 NGF**
In accordance with the 2015 Campus Master Plan, this project supports the demolition of Hughes and Munford Dormitories, the demolition of the Galt Houses, and the construction of new team and visitor locker room facilities, parking, coaching and team meeting space, teaching space, and training facilities.

19 **Construct: Dillard Athletic Fields & Track** **$6,928,000 NGF**
In accordance with the 2015 Campus Master Plan, this project supports the relocation of the track and field facilities from Cary Field to Dillard. The project will include a new track, seating for 500, and a throwing field.

20 **Replace: Facilities Management Complex** **$10,651,000 GF**
In accordance with the 2015 Campus Master Plan, this project includes replacement of the Facilities trades shops and warehouse, to include expanded parking.

21 **Renovate: Dormitories** **$19,200,000 NGF**
Continues the College's third decade of dormitory renovation programs that fund major replacement and improvement projects.

College of William and Mary 2016-2022 Six-Year Capital Plan

Priority	2016 - 2018 Capital Program Request Project	Fund	General Funds	Non-General Funds	TOTAL Project Request
1a	Maintenance Reserve	0100	$5,340,000	$0	$5,340,000
2	Construct: Fine and Performing Arts Complex, Ph 1	0100	$55,461,000	$0	$55,461,000
3	Construct: West Campus Utility Plant	0100	$17,500,000	$0	$17,500,000
4	Construct: Blow Hall IT Center Improvements	0100	$3,250,000	$0	$3,250,000
5	Construct: Sanitary Sewer Repairs	0100	$3,000,000	$0	$3,000,000
6	Improve: Athletic Facilities	0815	$0	$5,000,000	$5,000,000
7	Improve: Auxillary Facilities	0815	$0	$5,000,000	$5,000,000
8	Renovate: Dormitories	0813	$0	$2,500,000	$2,500,000
	2016-2018 Biennium Totals		$84,551,000	$12,500,000	$97,051,000

Priority	2018 - 2020 Capital Program Request Project	Fund	General Funds	Non-General Funds	Total Project Request
1b	Maintenance Reserve	0100	$5,190,000	$0	$5,190,000
9	Construct: Fine and Performing Arts Complex, Ph 2	0100	$64,284,000	$0	$64,284,000
10	Construct: Population Lab	0100	$7,410,000	$0	$7,410,000
11	Construct: Sadler West Addition	0813		$32,565,000	$32,565,000
12	Improve: Athletic Facilities	0815	$0	$5,000,000	$5,000,000
13	Improve: Auxilliary Facilities	0815	$0	$5,000,000	$5,000,000
14	Renovate: Dormitories	0813	$0	$15,000,000	$15,000,000
	2018-2020 Biennium Totals		$76,884,000	$57,565,000	$134,449,000

Priority	2020 - 2022 Capital Program Request Project	Fund	General Funds	Non-General Funds	Total Project Request
1c	Maintenance Reserve	0100	$5,995,000	$0	$5,995,000
15	Construct: Integrated Science Center, Ph 4	0100	$73,266,000		$73,266,000
16	Construct: Fine and Performing Arts Complex, Ph 3	0100	$34,668,000	$0	$34,668,000
17	Improve: Athletic Facilities	0815	$0	$5,000,000	$5,000,000
18	Improve: Auxilliary Facilities	0815	$0	$5,000,000	$5,000,000
19	Renovate: Dormitories	0813	$0	$20,000,000	$20,000,000
	2020-2022 Biennium Totals		$113,929,000	$30,000,000	$143,929,000

Priority	2016-2022 Donor Funded Projects	Fund	General Funds	Non-General Funds	Total Project Request
1	Construct: Basketball Practice Facility	0302	$0	$20,000,000	$20,000,000
2	Construct: Muscarelle Museum	0302	$0	$40,000,000	$40,000,000
3	Construct: Alumni House Addition/Renovation	0302	$0	$8,000,000	$8,000,000
4	Construct: Dillard Track & Field Complex	0302	$0	$14,000,000	$14,000,000
	2016-2022 Biennium Totals		$0	$82,000,000	$82,000,000

	Grand Total -- 2016-2022:		$275,364,000	$182,065,000	$457,429,000

Draper Aden Associates
Engineering • Surveying • Environmental Services
Lasting Positive Impact™

Phone: 804.264.2228 • Direct Line: 804.261.2929 • Mobile 804.245.0933

Web • Blog • Facebook • Twitter • LinkedIn