SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

The College of William & Mary
Williamsburg, Virginia

WILLIAM & MARY

CHARTERED 1693

PREPARED FOR:

The College of William & Mary

P.O. Box 8795

Williamsburg, Virginia 23187-8795

Issued February, 2016

Revised April, 2016

Draper Aden Associates

Engineering • Surveying • Environmental Services

DAA Project Number: **R06714-62E**

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: _____

FACILITY MANAGEMENT APPROVAL

Officials at the College of 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 the College of William & Mary extends its full approval of this SPCC Plan, and will commit the resources necessary for implementation.

Authorized Facility Representative: Van Dobson

Title: Associate Vice President, Facilities Management

Signature: _____

Date: _____

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 the College of William & Mary at least once every five years. As a result of this review and evaluation, the College of 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, the College of 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 College of 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 College of 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 College of 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 College of 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

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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	Environment, 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 College of 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 the College of William & Mary exceeds the U.S. EPA thresholds, the College of 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 of The College of William & Mary SPCC Plan will be maintained with the Director of Environment, 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 Facilities Management and Code Review Team offices. The facility is attended approximately 24 hours a day, seven days a week by campus security. 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 College of 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 **August, 2020**, and the amendment must occur by **February, 2021**.

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:

The College of William & Mary
Facilities Management Office
Grigsby Drive
Williamsburg, Virginia 23187-8795
Latitude: 378-16'-12" N
Longitude: 768-43'-00" W

2.2 FACILITY CONTACTS

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

Name: Ms. Sandra Prior; Director, Environment, 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. Steve Singleton; Sr. Safety Engineer, Environment, Health & Safety
Contact Number: (757) 221-2288

Name: Mrs. Cori Harris; Technician, Environment, Health & Safety
Contact Number: (757) 221-6450

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

The College of 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, the College of 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 College of 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 College of 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 College of William & Mary facility is approximately 23,917 gallons in 29 tanks. Approximately 19,317 gallons of diesel fuel is associated with 27 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 Monticello Plant AST, the Rec Center fire pump AST and the Grounds diesel AST, 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.

3.2 UNDERGROUND STORAGE TANKS (USTs)

Table 3-2 provides an inventory of the active USTs maintained at the College of William & Mary facility, including the location, capacity and contents of the tank. The total underground storage tank capacity at the College of William & Mary facility is 63,600 gallons in a total of six 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. 33)

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. 33 is shown on **Figure 2-1**.

3.2.3 Blow Hall UST (No. 34)

This 600-gallon tank is of double-wall fiberglass construction. The connecting piping from the tank to the generator day-tank, located within Blow Hall, is of steel construction but is cathodically protected. Since this tank is subject to 40 CFR Part 280, it is excluded from SPCC regulations; however, the location of Tank No. 34 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 College of 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 College of 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 College of 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 the College of 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 College of 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 College of 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 College of 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, 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 two releases of oil at the College of William & Mary dating back to 2012, as described in the following paragraphs.

Sadler Center

On May 7, 2012, EH&S personnel were notified of a possible oil spill in a parking space behind Zable Stadium next to the Sadler Center. The caller stated it looked as if someone had changed the oil in their car and left the old oil in a pan on the ground, and some of the oil appeared to have spilled onto the asphalt parking lot. EH&S personnel proceeded to the area and found the oil in question. There was approximately 2 gallons of oil contained in a car oil change pan and approximately ½ quart had spilled onto the asphalt. EH&S personnel collected the oil out of the pan into a container with a lid and poured it off into the used oil drums located at the Facilities Shops. EH&S personnel also cleaned up the spilled oil on the asphalt parking lot using absorbents and spill pads. This material was disposed of as a non-hazardous waste in an approved landfill.

One Tribe Place

On July 12, 2013, at about 1500 hours, the University Police received notification concerning oil spilled on the back parking lot of One Tribe Place (415 Richmond Road, Williamsburg, VA). University Police personnel notified the EH&S office and EH&S personnel responded to the area to assess the spill and gather information.

The oil was apparently spilled from a car by unknown individuals parked in the lot and discovered after they had left. Due to the rain that afternoon runoff from the parking lot reached a storm drain before the spill was discovered. It appeared an estimated 2 - 3 quarts of oil was released onto the parking lot and estimated that 1 - 2 quarts may have entered a storm drain. The parking lot is sloped and the runoff entered a storm water drain at the lower end of the slope. A sheen was observed at the storm water outfall from the property on the north side of the property.

University employees and contractor employees, from a construction project at One Tribe Place, assisted with removing the oil from the parking lot and clearing the storm water outfall. Dry oil absorbent and oil absorbent pads were used to clean up the parking lot and absorbent pads/socks were used to dyke the outfall. The absorbent and pads were collected and placed in a drum for disposal. After cleanup, there was no visible sheen at the storm drain or the outfall from the property. The absorbent socks and pads were removed and added to a drum for disposal.

Reports and other information regarding each of the above-mentioned releases are 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 29 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.

5.2 UNDERGROUND STORAGE TANKS

5.2.1 Power Plant, Swem Plant, Law School, Facilities Maintenance, & Blow Hall 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, the 8,000-gallon UST behind the Facilities Maintenance Building, and the 600-gallon UST at Blow Hall 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 College of 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 College of 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 area) 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

The College of 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, Blow Hall, 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 College of 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 and the piping for the Blow Hall UST is cathodically-protected steel. 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 the College of 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, the College of 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 College of 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. 33 (Facilities Maintenance / 8,000-gallons / gasoline)
- Tank ID No. 34 (Blow Hall Generator / 600-gallons / diesel)

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***.

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. With the exception of the Blow Hall connecting piping to the day tank, 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 the College of 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. 33 (Facilities Maintenance / 8,000-gallons / gasoline)
- Tank ID No. 34 (Blow Hall Generator / 600-gallons / diesel)

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

The College of 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

The College of 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 Environment, 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. 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 Virginia Dominion Power-owned transformer at the College of William & Mary, Virginia Dominion Power 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, Virginia Dominion Power takes complete responsibility for discharges from its transformers. In the event of a release from a Virginia Dominion Power transformer, the Emergency Coordinator or his designee should contact Virginia Dominion Power. The following Virginia Dominion Power 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. The College of 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 Main 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 College of 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). College of 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 cleanup 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 College of 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 College of 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) 345-9549 or (757) 345-9634 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: Mr. John Settle, 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 College of 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 College of 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 College of 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, with the exception of the 600-gallon UST associated with the Blow Hall Generator and the gasoline tank behind Facilities Maintenance, 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; however the Blow Hall and Facilities Maintenance USTs exceed this threshold.

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 College of 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.

FIGURES

TABLES

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 List

APPENDIX E

Spill History Information

Zable Stadium / Sadler Center
Spill reported on May 7, 2012

One Tribe Place
Spill reported on July 12, 2013

APPENDIX F

Spill Predictions

APPENDIX G

DOT Regulations

APPENDIX H

Monthly Inspection & Maintenance Log Sheets

Blank Forms

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

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

College of William & Mary
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