Presented to: James Madison University Facilities Management 181 Patterson Street Harrisonburg, Virginia

# Spill Prevention, Control, and Countermeasure Plan

JAMES MADISON UNIVERSITY HARRISONBURG, VIRGINIA

April 2019

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.

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#### 1.0 CERTIFICATIONS AND MANAGEMENT APPROVAL

#### 1.1 PROFESSIONAL ENGINEER'S CERTIFICATION [112.3(D)]

I hereby certify that I am familiar with the requirements for Spill Prevention, Control, and Countermeasure Plans under 40 Code of Federal Regulations (CFR) Part 112.

I, or an agent working under my direction, have visited and examined James Madison University (JMU) petroleum storage locations located on the University campus in Harrisonburg, Virginia.

I also certify that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR Part 112. Furthermore, I certify that procedures for required inspections and testing have been established and that this Spill Prevention, Control, and Countermeasure Plan are adequate for the Facility.

Such certification shall in no way relieve JMU of the duty to prepare and fully implement this Spill Prevention, Control, and Countermeasure Plan in accordance with the requirements of 40 CFR Part 112.

DANIEL R. GOLDSTEIN Lic. No. 047436

By: Camel RGoldster

Daniel R. Goldstein, P.E.

Virginia P.E. No. 047436

**Date:** 04/29/19

Table 2 SPCC Plan Certifications

No.	Ву	Date	Description
0	Daniel R. Goldstein, P.E.	12/30/09	Plan Update Review
1	Daniel R. Goldstein, P.E.	01/26/15	Plan Update Review
2	Daniel R. Goldstein, P.E.	04/29/19	Plan Update Review

# 1.2 DOCUMENTATION OF PLAN REVIEW AND EVALUATION [112.5]

Tables for plan review and evaluation can be found in Appendix A.

# 1.3 MANAGEMENT APPROVAL [112.7]

James Madison University is committed to the prevention of discharges of oil to navigable waters and the environment from petroleum storage tanks located on the University campus in Harrisonburg, Virginia. As a part of this commitment, JMU will provide the necessary resources to fully implement this Spill Prevention, Control, and Countermeasure Plan. JMU will maintain the highest standards for discharge prevention, control, and countermeasures through regular review, updating, and implementation of this Plan.

By:

Name: Rodney Lam

James Madison University

Assistant Director, Facilities Mgmt.

Date:

# 1.4 CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA [ATTACHMENT C-II TO APPENDIX C OF 40 CFR PART 112]

Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

[] Yes[X] No

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

[] Yes[X] No

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive

environments (as calculated using the appropriate formula in Attachment C-III to Appendix C to 40 CFR Part 112 or a comparable formula1)? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to 40 CFR Part 112, Section 13, for availability and the applicable Area Contingency Plan).

[] Yes[X] No

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake (as calculated using the appropriate formula in Attachment C-III to Appendix C to 40 CFR Part 112 or a comparable formula[1])?

[] Yes[X] No

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

## Certification

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

By: John de

Rodney Lam, Assistant Director - Facilities Management

James Madison University

Date: 4/30/2019

#### 2.0 INTRODUCTION

Section 311(j)(1)(C) of the Clean Water Act requires the development of regulations to establish procedures, methods, equipment, and other requirements to prevent discharges of oil from vessels and facilities, and to contain such discharges should they occur. These regulations were promulgated by the United States Environmental Protection Agency and are found in 40 CFR Part 112, *Oil Pollution Prevention*. The preparation and implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan (the Plan) is required, when applicable, to address the prevention of discharges of oil.

Where this SPCC Plan exceeds statutory and/or regulatory requirements, the Facility Owner does not intend those provisions to become enforceable standards.

As defined under 40 CFR 112.2, a SPCC Plan is:

"...the document required by 112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge."

James Madison University maintains a number of aboveground storage tanks on the University campus. There are currently forty-eight backup generators used to provide emergency power to campus buildings that have double-walled belly tanks incorporated into the generator structure. Of these, forty-four have tank capacities equal to or greater than 55-gallons and are required to be addressed by a SPCC Plan. Fifteen other ASTs located on campus are double-walled fuel dispensers, heating oil tanks, waste oil tanks, or tanks used to supply additional fuel to emergency generators. A pickup truck with a 100-gallon tank used to fuel backup generators is kept at the University Services building, and is filled from the North Campus Parking Deck AST. Three 55-gallon drums of hydraulic fluid are also maintained at the Transportation Center. In addition, seven ASTs located throughout the facility are used to store used cooking oil. JMU has developed this SPCC Plan to ensure that this facility meets the requirements of 40 CFR Part 112.

Under certain conditions, facilities storing and using oil must develop and implement a Facility Response Plan (FRP) to address response actions related to discharges of oil. However, JMU does not meet the substantial harm criteria and is not required to develop an FRP (refer to Section 3.5).

#### 2.1 PLAN REVIEW AND AMENDMENT [112.5]

#### 2.1.1 Plan Amendments and P.E. Certification of Amendments [112.5(a),(c)]

This Plan must be amended when there is a change in the Facility design, construction, operation, or maintenance that materially affects the Facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. The amendment must be completed within six months and implemented as soon as possible, but in no case later than six months following the preparation of the amendment.

An amendment to the Plan can either be technical in nature, which requires a Professional Engineer's certification, or non-technical (administrative) in nature, which does not require Professional Engineer certification. Technical amendments materially affect a facility's potential to discharge oil and require the application of good engineering practice. Hence, these types of changes require a Professional Engineer certification.

Records of both technical and non-technical amendments will be maintained in Appendix A. If it cannot be determined whether an amendment is technical or non-technical, the change will be reviewed by a Professional Engineer, and if necessary, the amendment will be certified.

#### 2.1.2 Periodic Review and Evaluation [112.5(b)]

A review and evaluation of this Plan must be conducted at least once every five years from the original date of certification. As a result of this review and evaluation, the Plan must be amended within six months of the review to include more effective prevention and control technology, if the technology has been field-proven at the time of review and will significantly reduce the likelihood of a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. The amendment must be implemented as soon as possible, but no later than six months following the preparation of the amendment.

Completion of the review and evaluation must be documented, and this documentation must include a signed statement indicating whether the Plan will be amended. Tables A-1 and A-2 provided in Appendix A are available to serve as the documentation for these periodic reviews.

#### 2.2 GENERAL PLAN REQUIREMENTS [112.7]

#### 2.2.1 SPCC Plan Preparation

An SPCC Plan must be prepared for any facility subject to 40 CFR Part 112. This facility must prepare a Plan because it meets the following requirements:

- It is a non-transportation-related onshore facility engaged in storing and using oil and oil products, which due to its location, could reasonably be expected to discharge 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.
- It has an aggregate aboveground storage capacity exceeding 1,320 gallons of oil, counting only containers of oil with a capacity of 55 gallons or greater.

#### 2.2.2 Management Approval

An SPCC Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. A signed statement of approval for this Plan by James Madison University management is found in Section 1.3.

#### 2.2.3 Plan Sequence

The sequence of an SPCC Plan must follow the sequence specified in 40 CFR 112.7. If this sequence is not followed, an equivalent Plan meeting all applicable requirements must be prepared, and a cross-reference must be provided. In general, this Plan follows the required sequence; however, there are some deviations as shown in *Table 1 - Locations of SPCC Plan Requirements Within This Plan*.

#### 2.2.4 Future Implementation

If an SPCC Plan calls for procedures, methods, or equipment not yet fully operational or for additional facilities, these items must be discussed separately, and the discussion must explain the details of installation and operational startup. Table 3 identifies the areas where procedures, methods, or equipment are not yet fully operational in accordance with applicable 40 CFR 112 regulations. In order for the facility to comply fully with 40 CFR 112, these issues must be addressed and corrective actions implemented by the schedule provided below. For each action item listed, the table indicates the required corrective action and the anticipated implementation date.

Once the actions have been implemented, JMU will make the necessary changes to Appendix A. The wording of this SPCC Plan has been written as if these corrections have already been made.

The Professional Engineer (P.E.) Certification included on Page 2 of this SPCC Plan is conditional and contingent upon the items below being completed. This P.E. certification will expire if the items listed below are not implemented within six months of the Plan's certification.

During the update of this Plan, it was determined that two single walled 275-gal AST tanks will be replaced with a 500-gal AST double walled tank by the end of 2019. In addition, it was determined that additional generators for emergency power with belly tanks will be installed at various locations on campus. These tanks have been added to the plan as they are subject to SPCC requirements, and Table 3 indicates the capital project that will be conducted shortly to address these additions. These additions, once installed, will bring the facility into full compliance with requirements and the intent of 40 CFR 112.

Table 3 Future Implementation Schedule

Implementation Topic	Regulatory Citation	Implementation Action Item	Planned Completion Date
A single 500-gal AST double-walled tank	40 CFR 112.7(c)	JMU will replace (2) 275-gal AST tanks with a single 500-gal AST double walled tank at the Alternate Fuels Lab.	December 31, 2019
Additional generators to be installed for emergency power	40 CFR 112.7(c)	JMU will add additional generators for emergency power with belly tanks at the following locations: Arena/East Campus Parking Deck, New Residence Hall (East Campus), College of Business, P. C. Dukes Total Rebuild, Jackson Hall Renovation, Wilson Hall Renovation, Eagle Hall Renovation	July 17, 2019- November 2020

#### 2.3 CONFORMANCE WITH PLAN REQUIREMENTS [112.7(A)(1), 112.8(A)]

JMU conforms to all applicable requirements listed in 40 CFR Part 112, including those listed under Sections 112.7, 112.8, and 112.12. This Plan, and all actions taken in accordance with this Plan, attests to JMU's conformance at this Facility.

#### 2.4 DEVIATIONS FROM PLAN REQUIREMENTS [112.7(A)(2)]

Certain deviations in the Plan requirements are allowed under 40 CFR 112.7(a)(2), if equivalent environmental protection is provided. Based on a review by the Professional Engineer certifying this plan, James Madison University has no exceptions that deviate from the applicable requirements, with the exception of the following:

Emergency backup generator refueling is not performed within secondary containment. Rather, the fueling operations follow a practice of blocking stormwater inlets and include continuous monitoring by JMU personnel equipped with spill response equipment, as described in Section 5.6.1. This provides equivalent environmental protection based on the small quantities of fuel transferred into generator belly tanks.

#### 2.5 DETAILED SUMMARY

**Facility Owner:** James Madison University

**Facility Operator:** Same as above

**Locations:** 38°26′ 18.5" N

78°52′ 25.7" W

**Facility Street Addresses:** 181 Patterson Street

Harrisonburg, Virginia 22807

**Facility Phone/Fax:** Telephone: 540-568-6905

Fax: 540-568-6026

**Energy & Utilities Senior** 

**Manager:** Mr. Rodney Lam

Facility U.S. EPA ID No.: N/A

Facility SIC Code: 8221 - Universities

#### 2.6 FACILITY OPERATIONS AND LAYOUT [112.7(A)(3)]

The location of James Madison University is shown on the U.S.G.S Topographic Quadrangle, Site Location Map presented as Figure 1. Figure 2, the Site Layout Map, provides a more detailed view of the facility, including locations of oil storage equipment.

JMU occupies approximately 721 acres along South Main Street and University Blvd in Harrisonburg, Virginia. The campus includes over 100

buildings and several smaller non-adjacent parcels, as shown on Figure 2. The campus includes academic buildings, support buildings, and dormitories, and is active 24-hours per day. Campus Police provide round-the-clock security. Petroleum storage is distributed around campus as shown on Figure 2.

A detailed description of aboveground storage tanks at JMU and potential discharge predictions is included in Section 4.0.

#### 2.7 FACILITY OIL STORAGE [112.7(A)(3)(I)]

40 CFR 112.2 defines "oil" 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, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil"

"Bulk Storage Container" is defined as:

"...any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or mechanical equipment is not a bulk storage container."

As noted in the above definition, the United States Environmental Protection Agency (US EPA) has specifically excluded oil-filled electrical, operating, or manufacturing equipment from the definition of bulk storage container. This type of equipment is exempt from certain requirements of the SPCC rule, including integrity testing; however, general requirements for spill prevention and response provided in 112.7 are applicable to ensure any discharge does not reach navigable waters. The volume of oil storage in this equipment must also be listed in the SPCC Plan and the equipment locations shown on the facility drawings with this Plan. JMU does not own any of the electrical transformers that are located on the campus. The Harrisonburg Electric Commission (HEC) owns and operates all of these transformers. As noted in the EPA's SPCC Guidance for Regional Inspectors (December 16, 2013):

"The facility owner and operator are responsible for ensuring that an SPCC Plan is prepared. A single site may have multiple owners and/or operators, and therefore may be divided into multiple facilities. Factors to consider in determining which owner or operator should prepare the Plan include who has control over day-to-day operations of the facility or particular containers and equipment, who trains the employee(s) involved in oil handling activities, who will conduct the required inspections and tests, and who will be responsible for responding to and cleaning up

any discharge of oil. EPA expects that the owners and operators will cooperate to prepare one or more Plans, as appropriate."

JMU does not have day-to-day control over the transformers and is not able to conduct maintenance on them. Additionally, JMU does not conduct any oil handling activities related to the transformer. Furthermore, the SPCC Guidance for Regional Inspectors also notes that:

"transformers ... [that are] under the operational control of the local utility may be addressed separately by the utility. The owner/operator of the facility would typically not be required to include these containers in the SPCC Plan."

As such, the SPCC requirements for the transformers on campus, including secondary containment requirements, are not included in this Plan.

Table 4 lists the oil storage containers located at the facility and their respective volumes, contents, and locations. The locations of these containers are also shown on Figure 2.

Table 4 Oil Storage

Quantity	Capacity (gallons)	Type	Location	Content
Petroleum	Oil ASTs/U			
2	$275^{1}$	AST	Alternate Fuel Lab	#2 Fuel Oil
1	500	AST	E&M Building	#2 Fuel Oil
1	500	AST	University Services	Waste Motor Oil
1	6,300	AST	Transportation Center	Gasoline
1	270	AST	Transportation Center	Bio-Diesel
1	275	AST	Transportation Center	Waste Motor Oil
1	560	AST	Landscaping Building	Diesel
1	560	AST	Landscaping Building	Gasoline
1	1,000	UST	1077 South Main Street	#2 Fuel Oil
1	2,000	UST	USB Garage	Diesel Fuel
1	10,000	UST	USB Garage	Gasoline
2	50,000	UST	Power Plant	#2 Fuel Oil/Biodiesel
1	12,000	AST	East Campus Power Plant	#2 Fuel Oil
1	50*	AST	WMRA	Diesel Fuel (Generator)
1	1,000	AST	Memorial Hall	Diesel Fuel (Generator)
1	275	AST	North Campus	Diesel Fuel (Day Tank)
1	1000	AST	North Campus (Parking Deck)	Diesel Fuel(Generator)
1	500	AST	Medical Arts Complex (JMAC 6)	Heating Oil
Located wit	hin Backup G			
1	550	AST	CISAT Academic I	Diesel Fuel (Generator)
1	100	AST	Ashby Hall	Diesel Fuel (Generator)
1	100	AST	Carrier Library #2	Diesel Fuel (Generator)
1	150	AST	Chesapeake Hall	Diesel Fuel (Generator)
1	350	AST	College Center	Diesel Fuel (Generator)
1	100	AST	Converse Hall	Diesel Fuel (Generator)
1	100	AST	Convocation Center	Diesel Fuel (Generator)
1	100	AST	Eagle Hall	Diesel Fuel (Generator)

1	500	AST	Frye Building	Diesel Fuel (Generator)		
1	150	AST	CISAT A-2 (Health & Human)	Diesel Fuel (Generator)		
1	50*	AST	Hillside	Diesel Fuel (Generator)		
1	75	AST	Music Building	Diesel Fuel (Generator)		
1	250	AST	Potomac Hall	Diesel Fuel (Generator)		
1	200	AST	Shenandoah Residence Hall	Diesel Fuel (Generator)		
1	120	AST	Taylor Hall	Diesel Fuel (Generator)		
1	250	AST	University Services	Diesel Fuel (Generator)		
1	325	AST	UREC	Diesel Fuel (Generator)		
1	200	AST	Wampler Hall	Diesel Fuel (Generator)		
1	250	AST	Wilson Hall #1	Diesel Fuel (Generator)		
1	50*	AST	Wilson Hall #2	Diesel Fuel (Generator)		
1	150	AST	Parking Deck (Champions Dr.)	Diesel Fuel (Generator)		
1	100	AST	Gifford Hall	Diesel Fuel (Generator)		
1	50*	AST	Logan Hall	Diesel Fuel (Generator)		
-1	F0*		Anthony Seeger (Police	4		
1	50*	AST	Station)	Diesel Fuel (Generator)		
1	112	AST	Telecom (Power Plant)	Diesel Fuel (Generator)		
1	250	AST	Athletic Performance Center	Diesel Fuel (Generator)		
1	200	AST	Bookstore	Diesel Fuel (Generator)		
1	300	AST	CISAT A-3 (Chem. & Physics)	Diesel Fuel (Generator)		
1	660	AST	East Campus Library	Diesel Fuel (Generator)		
1	278	AST	East Campus Dining Hall	Diesel Fuel (Generator)		
1	1,900	AST	WCD (D Hall)	Diesel Fuel (Generator)		
1	85	AST	Harrison Annex	Diesel Fuel (Generator)		
1	119	AST	Hoffman Hall	Diesel Fuel (Generator)		
1	140	AST	Wayland Hall	Diesel Fuel (Generator)		
1	595	AST	Massanutten Hall	Diesel Fuel (Generator)		
1	500	AST	Massanutten Hall (JMAC-5)	Diesel Fuel (Generator)		
1	65	AST	Telecom #3 (West)	Diesel Fuel (Generator)		
1	475	AST	Parking Deck (Warsaw St.)	Diesel Fuel (Generator)		
1	356	AST	Performing Arts Ctr	Diesel Fuel (Generator)		
1	250	AST	Philips Center	Diesel Fuel (Generator)		
1	278	AST	Burruss Hall	Diesel Fuel (Generator)		
1	140	AST	Spotswood Hall	Diesel Fuel (Generator)		
1	720	AST	Miller Hall	Diesel Fuel (Generator)		
1	150	AST	Memorial Hall	Diesel Fuel (Generator		
_				Day Tank)		
1	208	AST	Memorial Stadium (Baseball)	Diesel Fuel (Generator)		
1	1,000	AST	Zane Showker Hall	Diesel Fuel (Generator)		
1	472	AST	USB Annex	Diesel Fuel (Generator)		
1	350	AST	Parking Deck (Chesapeake)	Diesel Fuel (Generator)		
	Petroleum Oi			Dieserruer (Generator)		
1	100	AST	Refueling Pickup Truck	Diesel Fuel		
3	55	Drum	Transportation Center	Hydraulic Oil		
	king Oil AST		Transportation Center	Tryuraunc On		
1	300	AST	WCD (D Hall	Used Cooking Oil		
1	200	AST	ECD (E Hall)	Used Cooking Oil		
1	300	AST	Festival and Conference Center	Used Cooking Oil		
1	300	AST	Bridgeforth Stadium	Used Cooking Oil		
1	150	AST	Memorial Hall	Used Cooking Oil		
1	150	AST	SSC	Used Cooking Oil		
1	55	AST	Memorial Stadium (Baseball)	Used Cooking Oil		
* storage tanks with a capacity of less than 55 gallons are not covered by SPCC regulations, but are included here for planning purposes.						
	<sup>1</sup> 275-gal AST's will be replaced with one 500-gal AST by December 2019.					

**<sup>12</sup>** 

<sup>2</sup> JMU will add additional generators for emergency power with belly tanks at the following locations: Arena/East Campus Parking Deck, New Residence Hall (East Campus), College of Business, P. C. Dukes Total Rebuild, Jackson Hall Renovation, Wilson Hall Renovation, Eagle Hall Renovation by December 2019.

James Madison University has total oil storage capacity of 38,150 gallons in aboveground tanks, of which 22,570 is stored in SPCC-regulated containers, and 113,000 gallons in underground storage tanks. USTs containing heating oil for use on the premises are exempt from SPCC regulations as referenced by 40 CFR 112.1(D)(4).

#### 2.8 FACILITY DISCHARGE PREVENTION MEASURES [112.7(A)(3)(II)]

JMU has provided adequate discharge prevention measures through the implementation of this Plan. All employees handling oil and their supervisors are properly trained in the topics covered by this Plan. This training is intended to reduce the likelihood of a discharge of oil. Routine inspections are conducted to discover any discharges and to prevent future discharges by noting any corrective actions that may be required. Security measures are in place to allow the discovery of any discharges and to deter vandalism that might result in a discharge. When adding fuel to any of the bulk storage tanks, procedures are in place to minimize accidental discharges as described in Section 5.6.1.

#### 2.9 FACILITY DISCHARGE AND DRAINAGE CONTROLS [112.7(A)(3)(III)]

JMU has provided adequate discharge and drainage controls through the implementation of this Plan. Bulk storage containers are provided with secondary containment, consisting of engineered double-walled aboveground storage tanks. Refueling procedures include blocking stormwater inlets, spill response kits, and trained personnel present at all times. Prior to filling any tank, approval will be obtained from a representative of JMU Facilities Management. An individual assigned by Facilities Management will be present during all tank-filling operations at the facility. Refueling and tank unloading operations shall not be performed during rainy site conditions. The individual will drive a truck that will be equipped with adequate spill response equipment, including drain covers, sand bags, and a mobile telephone or other means of communication. Prior to refueling or unloading an AST or UST at the facility, drain covers shall be installed on storm sewer drains or drop inlets in the immediate downgradient vicinity of the tank.

Containment equipment is stored on-site within spill containment sheds at the Power Plant, Harrison Hall, East Campus Power Plant and CISAT AI. Some of the equipment is stored in a manner that it is available to be taken to any site during refueling as described herein. An inventory list is maintained on the inside of the spill shed door. Each shed contains varying amounts of the following items:

- Sorbent booms;
- Sorbent pads;
- Bags of commercial sorbent particulates;
- Portable spill dikes;
- Drain covers;
- Sand bags;
- Brooms;
- Buckets;
- Dust pans;
- Squeegees;
- Danger/caution tape;
- Traffic cones;
- Trash bags;
- PPE suits; and
- Face shields.

Following a spill response, first responders will provide the Power Plant Manager with a list of materials that were utilized in response activities so the spill sheds can be restocked.

#### 2.10 FACILITY DISCHARGE COUNTERMEASURES [112.7(A)(3)(IV)]

JMU has provided adequate means for the discovery, response, and cleanup of discharges of oil through the implementation of this Plan. Through routine inspections, potential discharges will be discovered. If such a

discharge is found, appropriate response and cleanup measures are in place. Any cleanup beyond discharge response is considered remediation and is beyond the scope of this Plan.

#### 3.0 DISCHARGE RESPONSE

#### 3.1 **EMERGENCY CONTACTS** [112.7(A)(3)(VI)]

#### 3.1.1 Facility Contacts

Facility Response Coordinator:

Dennis Hart, Power Plant Manager Telephone: 540-568-6235

**Alternate Contact:** 

Rodney Lam, Assistant Director,

Facilities Management Telephone: 540-568-6575

3.1.2 Discharge Notification

National Response Center Toll-free: 800-424-8802

Telephone: 202-267-2675

USEPA Region III Telephone: 800-438-2474

State Agency (VDEQ) Toll-free: 800-468-8892

Telephone: 540-574-7800

3.1.3 State and Local Emergency Response Agencies

JMU Campus Police Telephone: 540-568-6911

Harrisonburg Fire Department (HFD) Telephone: 540-432-7703

3.1.4 Available Spill Response Personnel

JMU HAZWOPER Team Telephone: 540-568-6101

#### 3.2 DISCHARGE RESPONSE PROCEDURES [112.7(A)(5)]

The discharge response procedures listed below should be followed by facility response personnel to contain discharges and to minimize dangers to public health and safety and to the environment in the event of an oil discharge.

#### 3.2.1 Person Discovering Discharge

Quickly assess the severity of the discharge in terms of quantity and consequences. Notify the HAZWOPER Team via the Work Control Center (568-6101) or JMU Police Department (568-6911) and Facility Response Coordinator (Dennis Hart) and report the location of the discharge, the type of material discharged, the quantity of material discharged, and any

additional information that the Coordinator may need. If adequately trained in discharge response, follow the procedure in Section 3.2.3 to contain the discharge. Otherwise, summon additional trained personnel to respond to the discharge. Complete as much of the appropriate Discharge Report Form as possible (this Form is found in Appendix B).

#### 3.2.2 Facility Response Coordinator

Based on the information provided by the person who discovered the discharge, notify the appropriate agencies of the discharge in accordance with the requirements listed in Section 3.3. Assist in containing the discharge, as necessary.

#### 3.2.3 Response Procedure

The following procedures will be implemented in the event of a spill.

In the event of a spill, the area will be immediately isolated, and the HAZWOPER Team will be notified. If the spill is less than twenty-five gallons, the spill kit will be obtained and JMU HAZWOPER Team will be contacted for the chemical specific clean-up and PPE advisement. JMU HAZWOPER Team will then don the proper PPE and clean-up the spill utilizing items in the spill kit. Storm and sewer drains will be immediately diked or blocked as needed. When necessary, materials will be absorbed with an in-house bulk absorbent. Absorbed or unusable materials will be stored in appropriate containers. These materials will be properly labeled and stored according to local, state and federal regulations until proper disposal can be ascertained.

If a leaking transformer is discovered, the JMU HAZWOPER Team will take immediate action to stop the leaking and prevent further discharge. The HEC will be notified at 540-434-5361 and the JMU HAZWOPER Team will continue to provide initial response assistance until HEC arrives at the university to undertake spill clean-up activities.

The JMU HAZWOPER Team has access to University-owned heavy equipment, including backhoes, dump trucks, and personnel. They also have the ability to control stormwater discharge from Newman Lake and the CISAT stormwater basin, in order to prevent migration of spills off of the University property. Utilizing these resources, JMU will be able to respond to any foreseeable discharge from any aboveground storage container on University property. In the rare case of a chemical fire or other lifethreatening situation, the Harrisonburg Fire Department (HFD) and HFD HAZMAT Unit are available to assist with response measures.

Table 5 Discharge Notification Requirement

Type of Discharge		Verbal Notification to:				Written Notification to:		
		EPA	VDEQ	HFD	EPA	VDEQ	HF&ES	
Discharge of oil to water that exceeds 1,000 gallons	Yes	2	Yes	Yes	Yes	Yes	Yes	
Two discharges of oil to water that exceed 42 gallons each within any 12-month period	1	1,2	Yes	Yes	Yes	Yes	Yes	
Discharge or threatened discharge of oil to marine waters	1	2	Yes	Yes	Yes	Yes	Yes	
Discharge of oil to water that violates applicable water quality standards (i.e. causes a sheen on the water)	Yes	2	Yes	Yes	3	Yes	Yes	
Discharge of oil to water that causes film or sheen upon or discoloration of water surface or adjoining shorelines	Yes	2	Yes	Yes	3	Yes	Yes	
Discharge of oil to water that causes sludge or emulsion to be deposited beneath water surface or upon adjoining shorelines	Yes	2	Yes	Yes	3	Yes	Yes	
Significant spill, release, or potential release of a hazardous material or other regulated substance to the soil, impervious surface, or waters of the state.	4	2	Yes	Yes	4	Yes	Yes	

NRC - National Response Center

EPA - U.S. EPA Region III

VDEQ - Virginia Department of Environmental Quality

 $\label{eq:heaviside} \mbox{HF\&ES - Harrisonburg Fire and Emergency Services}$ 

NA - Not Applicable

- 1 Notify only if discharge violates applicable water quality standards, causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.
- 2 Notify only if NRC cannot be contacted.
- 3 Notify only if this discharge is second of two discharges exceeding 42 gallons each within 12 months.
- 4 Notify only if spill, release, or discharge exceeds the Reportable Quantity (RQ) of the hazardous material or regulated substance. Virginia RQ is 25 gallons or more of oil spilled onto land, including spills that are contained wholly on the facility property.

#### 3.3 DISCHARGE NOTIFICATION

Appendix B contains blank discharge report forms for the facility. Many types of information are required to complete the form, and this broad range

of information is designed to address everything that must be reported for the various oral and written notifications for federal and state agencies. This information is summarized in Table 5. Not all of this information will be required by each agency; please refer to Sections 3.3.1 and 3.3.2 for the specific requirements. Prior to making the notifications, however, the JMU representative will attempt to have as much of the information available as possible. Maintain copies of each report and any attachments in Appendix B.

#### 3.3.1 *Oral Notifications* [112.7(*a*)(4)]

Under the Clean Water Act, discharges of oil to navigable waters of the United States meeting the following criteria may be harmful to the public health or welfare or the environment:

- Violates applicable water quality standards;
- Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines; or
- Causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Such a discharge does not have to be large. For example, a pint of oil can cover one acre of water surface area. Nonetheless, an immediate notification must be made to the National Response Center (NRC), Virginia Department of Environmental Quality (VDEQ), and Local Emergency Response Agency. If notification to the NRC is not possible, the spill must be reported verbally to U.S. EPA Region III.

Discharges that do not involve spills to navigable water, but which pose an immediate threat to human health or the environment, must be immediately reported to Virginia Department of Environmental Quality and Local Emergency Response Agency, if this is not covered by the 9-1-1 call. Table 5 summarizes both the oral and written requirements for making discharge notifications to Federal and State agencies.

National Response Center	(800) 424-8802			
State Warning Center	(800) 468-8892			
Local Emergency Response Agency	911			
VDEQ Valley Regional Office	(540) 574-7800			
U.S. EPA Region III	(800) 438-2474			

When notifying any of the above agencies, the following information must be provided:

- 1. The exact address or location and phone number of the facility;
- 2. The date and time of the discharge;
- 3. The type of material discharged;
- 4. Estimates of the total quantity discharged;
- 5. Estimates of the quantity discharged into or upon the navigable waters of the United States or adjoining shorelines;
- 6. The source of the discharge;
- 7. A description of all affected media;
- 8. The cause of the discharge;
- 9. Any damages or injuries caused by the discharge;
- 10. Actions being used to stop, remove, and mitigate the effects of the discharge;
- 11. Whether an evacuation may be needed; and
- 12. The names of individuals and/or organizations who have also been contacted.

Additionally, the JMU representative will have as much of the following information available as possible:

- 1. Your name, location, organization, and telephone number;
- 2. Name and address of the party responsible for the incident;
- 3. Danger or threat posed by the release or discharge;
- 4. Weather conditions at the incident location; and,

Any other information that may help emergency personnel respond to the incident.

#### 3.3.2 Written Notifications [112.4(a), 112.4(c)]

The U.S. EPA requires that a written report be submitted within 60 days to the appropriate Regional Administrator and State agency, whenever there is a single discharge of oil exceeding 1,000 gallons or two discharges of oil exceeding 42 gallons, each within any 12-month period. Send the reports to the following addresses:

United States Environmental Protection Agency

Region III 1650 Arch Street Philadelphia, PA 19103-2029

A copy of this written report will be sent to the following State and Local agencies:

Virginia Department of Environmental Quality Valley Regional Office 4411 Early Road Harrisonburg, VA 22807

and

Harrisonburg Fire Department 101 N. Main Street Harrisonburg, VA 22801

The written report must contain the following information:

- 1. Name of the facility;
- 2. Name and contact information of responsible person;
- 3. Location of the facility;
- 4. Maximum storage or handling capacity of the facility and normal daily throughput;
- 5. Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- 6. An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- 7. The cause of the discharge, including a failure analysis of the system or subsystem in which the failure occurred;
- 8. Additional preventative measures taken or contemplated to minimize possibility of recurrence; and
- 9. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

Although the US EPA Regional Administrator may request a copy of the SPCC Plan, after reviewing the spill notification report, it is not necessary to include a copy of the Plan with the report.

State Regulations

Virginia Petroleum Regulations require that when a confirmed release occurs, it must be reported verbally immediately, and a written report must be submitted within five (5) days. The report must include the location, date and time, content and quantity of the spill. A discharge does not have to be reported if the spill is less than 25 gallons, does not reach waters of the State, is cleaned up immediately and the facility maintains records of the incident as required by regulation.

#### 3.4 DISPOSAL OF RECOVERED MATERIALS [112.7(A)(3)(V)]

JMU currently contracts with Potomac Environmental Inc. and UNIVAR waste haulers for the disposal of its waste oils, oil-soaked rags, and other related waste. All oil-soaked material generated by JMU is properly disposed by one of these contractors.

In the event of an oil discharge, oil will be recovered using granular absorbent and oil absorbent materials, such as booms, which are found in the spill kits described in Section 2.9. The used oil absorbent and oil absorbent materials will be placed in the recovery drum, which will be sealed and properly labeled. The drum(s) will be transported and stored at the university's hazardous waste storage shed located at the University Services Building and transported to and disposed at a permitted facility in accordance with all local, state, and federal regulations.

#### 3.5 FACILITY RESPONSE PLAN [112.20]

A Facility Response Plan (FRP) is a plan for responding, to the maximum extent practicable, to a worst-case discharge of oil or to a substantial threat of such a discharge. An FRP also covers response to smaller discharges. However, an FRP is required only for a non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines. As documented in Section 1.4, JMU does not meet the substantial harm criteria and, therefore, does not require an FRP.

#### 4.0 POTENTIAL DISCHARGE PREDICTIONS [112.7(B)]

The potential discharge predictions for JMU are included in Table 6. Because of the Facility's containment systems, there is not a reasonable potential for a major equipment failure to result in a discharge. However, in the event of a discharge event that escapes secondary containment, a spill kit will be available that will include absorbent material, socks, and pads. If a discharge were to escape into storm drainage structures, the oil would eventually flow into Black's Run, located to the south of campus. A majority of spills on the JMU campus would first reach Newman Lake or the CISAT stormwater retention pond, which discharge into Black's Run. Spills that reach storm drains could be intercepted at these water bodies before escaping from the JMU property.

 Table 6
 Potential Discharge Predictions

Source	Type of Failure	Volume (gal)	Rate (gal/hr)	Direction of Flow	Controls in Place	Containment (gal)
Alternate Fuel Lab, E&M Building, Transportation Center	Total Failure; Spill during transfer	Up to 6,300	6,300	Sheet flow across asphalt pavement to the east towards gravel lot and ditch along railroad.	Spill kit kept nearby. When filling tanks, absorbent booms are placed to the east of the operation.	6,300
East Campus Power Plant	Total Failure; Spill during transfer	Up to 12,000	12,000	Sheet flow across asphalt pavement to the south towards asphalt lane into storm inlet.	Spill kit kept nearby. When filling tanks, absorbent booms are placed to the east of the operation.	12,000
Medical Arts Complex (JMAC 6)	Total Failure; Spill during transfer	Up to 500	500	Sheet flow across asphalt pavement to the west towards gravel and grass ditch along railroad	Spill kit kept nearby. When filling tanks, absorbent booms are placed to the west of the operation.	500

University Services, Facility Management, Refueling Pickup	Total Failure; Spill during transfer	Up to 100 & Up to 500	100-500	Sheet flow west across asphalt parking lot, into storm inlet equipped with 25,000-gallon oilwater separator which is rated at 2,500 GPM.	Spill kit kept nearby.	2,500 <sup>1</sup>
Landscaping Building	Total Failure; Spill during transfer	Up to 560	560	Sheet flow south to curbed asphalt area.	Spill kit to accompany filling, nearby storm inlet is blocked during filling	560
North Campus (Parking Deck)	Total Failure; Spill during transfer	Up to 1,000	1,000	Sheet flow south across asphalt and grass towards storm inlet.	Spill kit to accompany filling, nearby storm inlet is blocked during filling	1,000
Memorial Hall	Total Failure; Spill during transfer	Up to 500 & Up to 1,000	500- 1,000	Flow north along asphalt lane into storm inlet.	Spill kit to accompany filling, storm inlet is blocked during filling	500 & 1000
WMRA Building	Total Failure; Spill during transfer	Up to 50	50	Sheet flow north to grass ditch that heads towards Newman Lake or sheet flow south towards storm inlet.	Spill kit to accompany filling, absorbent booms are placed to the north of the operation and storm inlet is blocked.	50
Emergency Backup Generators, Heating Oil ASTs	Total Failure; Spill during transfer	Up to 65-720	65-720	Flow along asphalt, grass, or gravel into storm inlets	Spill kit to accompany filling, nearby storm inlets are blocked during filling	Various

 $<sup>^{1}</sup>$  The tanks located in this drainage area are double-walled. The 2,500 GPM oil-water separator UST is used as tertiary containment.

## 5.0 DISCHARGE PREVENTION MEASURES, CONTROLS, AND COUNTERMEASURES

## 5.1 CONTAINMENT SYSTEMS AND DIVERSIONARY STRUCTURES AND EQUIPMENT [112.7(C)]

To prevent discharges of oil to navigable waterways, JMU has provided appropriate secondary containment for bulk storage containers in the form of engineered double-walled tanks, and discharge prevention equipment capable of containing oil prior to cleanup. Double-walled tanks that are sized to contain >100% of the tank capacity are used for secondary containment for all aboveground petroleum oil-storage tanks at the facility. Both the tanks within emergency generators and the standalone tanks used for fuel dispensing, heating oil storage, waste oil storage, or additional diesel storage for emergency generators are double-walled. Although stored indoors at the Transportation Center, the 55-gallon drums of hydraulic oil are stored in spill caddies that would contain >100% of the drum capacity. The 100-gallon pickup-mounted storage tank does not have inherent secondary containment. However, it is parked at the University Services Building when not in use, so any discharge would be captured and contained by the oilwater separator (OWS). The ASTs containing used cooking oil are doublewalled containers that are sized to contain >100% of the tank capacity at the facility. Secondary containment for SPCC-regulated containers at JMU is summarized in Table 7.

 Table 7
 Secondary Containment Structures

Container Description	Secondary Containment Method	Secondary Containment Capacity	
ASTs (including those located within emergency generators)	Double-walled tanks	>100%	
Mobile Refueling Truck	OWS	25,000 gallons (2,500 GPM)	
Hydraulic fuel drums	Spill Caddy	>55 gallons	

#### 5.2 CONTINGENCY PLANNING [112.7(D)]

As described in Section 5.1, JMU has provided adequate secondary containment structures and discharge response procedures and equipment.

Contingency Planning is discussed in detail in Section 3.0, Discharge Response.

#### 5.3 INSPECTIONS, TESTS, AND RECORDS [112.7(E)]

Formal facility visual inspections will be conducted monthly, and records of these inspections will be documented and signed by the inspector or the Facility Manager. During the inspections, all bulk storage containers, piping, valves, transfer equipment, containment systems, and spill response equipment will be thoroughly checked for discharges and integrity.

The two most commonly used standards for containers are nationally recognized standards set by the American Petroleum Institute (API) (API Standard 653) and the Steel Tank Institute (STI) (STI Standard SP001). JMU personnel inspect the Facility's aboveground bulk storage containers in accordance with STI Standard SP001, which standardizes inspection requirements for shop-fabricated containers.

STI recommends that shop-fabricated double-walled ASTs with continuous release detection methods (CRDM) that are 5,000 gallons or less be visually inspected "periodically." STI recommends that shop-fabricated doublewalled ASTs with continuous release detection methods (CRDM) that are 5,000 -30,000 gallons be visually inspected "periodically" and have a formal external inspection by a certified inspector every 20 years for a Category 1 tank. As all of the ASTs at the University are double-walled and contain less than 20,000 gallon of oil, periodic inspections are required for all of the containers to fulfill STI SP001 inspection requirements and the 6,300 and 12,000 gallon tanks each have a formal external inspection by a certified inspector every 20 years. No formal external, formal internal, or leak test inspections are required. Periodic inspections include monthly and annual visual inspections that are conducted by JMU personnel. To comply with periodic inspection requirements, JMU personnel conduct monthly visual inspections, which are satisfied with the monthly inspections detailed above, and annual visual inspections. The annual inspections are conducted using the STI SP001 Annual Inspection Checklist. Although no formal inspections by an STI certified inspector are required, it is recommended that each tank receives a formal external inspection conducted by an STI certified inspector near the end of the tank's life (as listed by the tank manufacturer) to ensure the container is suitable for continued use. A formal inspection by an STI certified inspector is required, though, any time material repairs that affect tank integrity are made to the tank.

According to Section 6 of STI Standard SP001, when portable containers, such as the Facility's 55-gallon steel drums, have adequate secondary containment, then monthly visual inspection of these containers is acceptable and satisfies the integrity requirements of the SPCC rule.

Any discrepancies noted during the inspections will be corrected as soon as practicable to prevent the discharge of oil. A sample Owner Inspection Form and STI SP001 Annual Inspection Checklist are provided in Appendix C. Completed inspection forms will be maintained with the Plan in Appendix C for a minimum of three years. Monthly inspection records may alternatively be stored electronically within JMU's maintenance system, rather than on paper attached to this document. Electronic records will capture all elements of the inspection form included as Appendix C.

## 5.4 PERSONNEL, TRAINING, AND DISCHARGE PREVENTION PROCEDURES [112.7(F)]

#### 5.4.1 *Personnel Training* [112.7(*f*)(1)]

All JMU personnel that handle oil and that are involved with oil transfer operations will be instructed on discharge prevention procedures, the actions to take in the event of a discharge, the use of discharge response equipment, applicable regulations pertaining to oil discharges, general facility operations, and the contents of this Plan.

This instruction will be conducted for employees according to the following schedule:

- Employees who currently have oil-handling responsibilities will be instructed within 6 months after implementation of this Plan;
- Employees who are newly assigned oil-handling responsibilities will be instructed within 1 month after assuming such responsibilities; and
- Employees with oil-handling or emergency response responsibilities will receive 40-hour HAZWOPER training with annual 8-hour updates.

Records of employee training will be maintained in facility files as Appendix D for at least three years.

#### 5.4.2 Designated Person Accountable for Discharge Prevention [112.7(f)(2)]

Mr. Rodney Lam, the Facilities Management Assistant Director, is the designated person accountable for discharge prevention at this Facility.

#### 5.4.3 Discharge Prevention Briefings [112.7(f)(3)]

All operations personnel that handle oil-filled equipment or oil containers greater than 55-gallons will take part in discharge prevention briefings on a quarterly basis to ensure adequate understanding of the Plan. Topics will include known discharges, failures, malfunctioning components, and any recently developed precautionary measures. Additionally, these briefings

will serve as refreshers for the training described in Section 5.4.1. Sign-in sheets, which include the topics of discussion at each meeting, will be maintained as documentation in Appendix E for at least three years.

#### 5.5 **SECURITY** [112.7(*G*)]

#### 5.5.1 Fencing

Access to ASTs is restricted by fencing or by tanks located within locked steel structures housing backup generators. Additionally, 24-hour campus security regularly patrols all AST locations.

#### 5.5.2 Valves

Any valves that permit direct outward flow of a tank's contents are closed and locked when in non-operating or standby status.

#### 5.5.3 *Pumps*

Pumps used to dispense fuel from several ASTs are locked-out when not in use. Access is limited to authorized personnel.

#### 5.5.4 Piping

Delivery piping from fuel oil ASTs is routed to be protected from accidental damage. Suction pumping is used to prevent siphon discharges in the event of a leak. No external piping is associated with emergency backup generators.

Pipeline terminal connections are capped or blank-flanged and marked if the pipeline is not in service or on standby service for extended periods. The pipeline terminal connections for all of the ASTs and USTs are kept capped or blank-flanged until new fuel deliveries arrive on site. All such fill caps and blank-flanges shall be kept locked until opened by authorized personnel only.

#### 5.5.5 Lighting

Exterior and interior lighting on campus includes lighting at bulk storage container locations, and is sufficient for the discovery of discharges from the oil storage and dispensing systems.

## 5.6 FACILITY TANK CAR AND TANK TRUCK LOADING / UNLOADING RACK [112.7(h)(1), (2), (3)]

There are no loading or unloading racks at JMU; therefore, this section is not applicable.

#### 5.6.1 Best Management Practices

Although loading/unloading racks are not present at this facility, James Madison University implements such actions as a best management practice during loading and unloading activities:

- 1. Prior to commencing a tank-filling or tank-unloading operation, a trained JMU Facilities Management employee will be present to visually inspect and monitor the operation. This employee and the truck driver will have been trained in the use of spill cleanup, spill response and notification procedures, and the mechanical equipment used to store, transfer, or pump oil at the Facility. The JMU employee will have spill response materials present, and will block downgradient storm drains with a flexible cover.
- 2. Prior to commencing the loading or unloading operation, the tank truck will be immobilized by the driver.
- 3. The driver and JMU employee will be present throughout the entire loading or unloading operation, and the driver will monitor the transfer operation to detect any discharges and to prevent overfilling of either the storage tank or the tank truck.
- 4. In the event of a discharge, the JMU employee will notify the JMU HAZWOPER Team via the Work Control Center at 568-6101 immediately. The driver and appropriate JMU personnel will respond to the discharge as described in Section 3.2.
- 5. Prior to tank truck departure, the driver will clean up any incidental discharges and inspect the tank truck.

#### 5.6.2 Warning Light or Physical Barrier System [40 CFR 112.7(h)(2)]

This requirement is applicable to loading and unloading racks, which are not present at the Facility.

#### 5.6.3 Inspection of Lowermost Drainage Outlets [40 CFR 112.7(h)(3)]

This requirement is applicable to loading and unloading racks, which are not present at the Facility.

#### 5.7 BRITTLE FRACTURE EVALUATION [112.7(I)]

Because there are no field-constructed aboveground containers at this Facility, it is not necessary to evaluate any containers for risk of discharge or failure due to brittle fracture or other catastrophic failure. Therefore, this section is not applicable.

#### 5.8 STATE DISCHARGE PREVENTION REQUIREMENTS [112.7(J)]

Virginia has state specific regulations for facilities that store oil in aboveground and underground storage tanks (ASTs/USTs) of certain size. These regulations are defined in 9 VAC 25-91-10 and 9 VAC 25-590. However, this facility does not store oil in ASTs above the thresholds that would subject the facility to the state specific requirements, such as the pollution prevent requirements and preparation of an Oil Discharge Contingency Plan (ODCP). However, if JMU's aggregate aboveground oil storage capacity exceeds 25,000 gallons, the facility will comply with pollution prevention and ODCP requirements, and revise this plan accordingly.

Implementation of this plan will ensure James Madison University conforms to all applicable State and Federal oil pollution prevention regulatory requirements.

#### 5.9 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT [112.7(K)]

As shown in Table 4 above, the University's oil storage capacity does not include any oil-filled operational equipment. The transformers on the campus are owned and operated by HEC. As such, this section is not applicable.

#### **5.10** *FACILITY DRAINAGE* [112.8(B)]

Non-vegetable oil and animal fat/oil petroleum containers have additional requirements in 40 CFR 112.8. These facility drainage, bulk storage container, and facility transfer requirements are addressed in Sections 5.10 through 5.12. Compliance with the additional requirements for vegetable oil and animal fat/oil containers are addressed in Sections 5.13 through 5.15.

## 5.10.1 Means of Restraining Drainage from Diked Storage Areas [112.8(b)(1)]

No diked areas are present at the facility; therefore, this section is not applicable.

#### 5.10.2 Valves for the Drainage of Diked Areas [112.8(b)(2)]

No diked areas are present at the facility; therefore, this section is not applicable.

#### 5.10.3 Drainage Systems from Undiked Areas [112.8(b)(3)]

Drainage from areas of the site that are outside of secondary containment (i.e. undiked areas) with a potential for a discharge due to operations at the site include delivery trucks. Drainage from these areas could reach the storm water collection and conveyance system. Oil spilled in these undiked areas could also reach the storm water conveyance system, if not properly managed. The potential for a discharge in these areas will be managed by blocking storm drains or stormwater conveyance ditches during all oil loading and unloading operations that occur in these areas, as described in Section 5.6.1.

#### 5.10.4 Diversion System for Final Discharge [112.8(b)(4)]

Through the means discussed in Section 5.10.3, the undiked areas at the facility will be managed with best management practices. Therefore, this section is not applicable.

#### 5.10.5 Facility Drainage Systems and Equipment [112.8(b)(5)]

JMU has a 25,000-gallon OWS located at the University Services Building, which is capable of managing a flow rate of 2,500 gallons per minute. This OWS is periodically cleaned, and in the event of a discharge to this system, spill-response measures will consist of a spill-response contractor removing spilled oil from the OWS for proper disposal. There is no continuous treatment within the OWS that requires redundancy, as described in 40 CFR 112.8(b)(5).

#### 5.11 BULK STORAGE CONTAINERS [112.8(C)]

Pursuant to 40 CFR 112.2, the containers at the site that meet the definition of "bulk storage containers" include those noted in Table 4. The containers discussed in this section include all items in Table 4 except the used cooking oil containers. The used cooking oil containers are addressed in Section 5.14.

## 5.11.1 Container Compatibility with Contents and Storage Conditions [112.8(c)(1)]

All containers storing oil at the JMU campus are constructed of materials that are compatible with oil.

#### **5.11.2** *Secondary Containment* [112.8(c)(2)]

Secondary containment is provided for each bulk storage container as defined in 112.2. All ASTs are constructed with engineered double-walled containment systems. Secondary containment is provided for the 55-gallon

drums in the Transportation Center by storing them in spill caddies. Spill kits are also available on site to be used as active spill containment.

### 5.11.3 Drainage of Uncontaminated Rainwater from Diked Areas [112.8(c)(3)]

There are no outside diked storage areas at the facility where rainwater could collect; therefore, this section is not applicable.

## 5.11.4 Corrosion Protection of Completely Buried Metallic Storage Tanks [112.8(c)(4)]

Corrosion protection is present on completely buried metallic storage tanks at the site and piping leading from those tanks, if required under 40 CFR 280. Buried piping at JMU is typically used for heating oil used on the premises, which is not required to have corrosion protection by this regulation. Two regulated USTs are present on the JMU Campus. These are a 2,000-gallon diesel tank and 10,000-gallon gasoline tank at the Maintenance Center.

## 5.11.5 Corrosion Protection of Partially Buried or Bunkered Metallic Tanks [112.8(c)(5)]

There are no partially buried or bunkered metallic tanks at the facility; therefore, this section is not applicable.

#### 5.11.6 Aboveground Tank Periodic Integrity Testing [112.8(c)(6)]

All aboveground storage tanks are visually inspected for leaks on a monthly basis, and records of the inspections are maintained using the checklist found in Appendix C. Certified inspections are performed at recommended frequencies listed in Section 5.3.

#### 5.11.7 Leakage Through Defective Internal Heating Coils [112.8(c)(7)]

No AST at the JMU campus has internal heating coils. Therefore, this section is not applicable.

#### 5.11.8 Good Engineering Practice of Containers [112.8(c)(8)]

All storage tanks at the JMU campus are properly engineered, shop-built tanks.

#### 5.11.9 Observation of Effluent Treatment Facilities [112.8(c)(9)]

JMU has a 25,000-gallon OWS capable of managing liquid at 2,500 GPM, which is located near the University Services Building and the Transportation Center. This OWS is inspected annually to ensure it is operating properly, and it is periodically cleaned of sediment. In the event of

a discharge to this system, spill-response measures will consist of a spill-response contractor removing spilled oil from the OWS for proper disposal.

#### 5.11.10 Correction of Visible Discharges [112.8(c)(10)]

The bulk oil storage appurtenances at the facility will be visually inspected monthly (refer to Section 5.3). If any discharges are noted during the inspection, they will be cleaned up promptly, and the cause of the release corrected to prevent future discharges.

#### 5.11.11 Position of Mobile or Portable Oil Storage Containers [112.8(c)(11)]

The 100-gallon pickup-mounted storage tank is parked at the University Services building when not in use, so any discharge would be captured and contained by the OWS. In addition, the 55-gallon drums in the Transportation Center are stored in spill caddies which provide greater than 100% containment capacity.

## 5.12 FACILITY TRANSFER OPERATIONS, PUMPING, AND FACILITY PROCESS [112.8(D)]

No transfer operations occur on-site; therefore, this section is not applicable.

#### 5.12.1 Protection of Buried Piping [112.8(d)(1)]

There is no regulated buried piping at the facility; therefore, this section is not applicable.

#### **5.12.2** *Terminal Connections* [112.8(*d*)(2)]

There are no terminal piping connections at the facility; therefore, this section is not applicable.

#### 5.12.3 *Design of Pipe Supports* [112.8(*d*)(3)]

There are no supported liquid piping systems associated with the oil storage containers; therefore, this section is not applicable.

## 5.12.4 Inspection of Aboveground Valves, Piping, and Appurtenances [112.8(d)(4)]

Aboveground piping is visually inspected monthly by JMU personnel to prevent discharges due to deterioration.

## 5.12.5 Protection of Aboveground Piping and Other Transfer Operations from Vehicular Traffic [112.8(d)(5)]

Aboveground piping is routed to prevent accidental damage from vehicular traffic.

#### 5.13 USED VEGETABLE OIL FACILITY DRAINAGE [112.12(B)]

## 5.13.1 Means of Restraining Drainage from Diked Storage Areas [112.12(b)(1)]

No diked areas are present at the facility; therefore, this section is not applicable.

#### 5.13.2 Valves for the Drainage of Diked Areas [112.12(b)(2)]

No diked areas are present at the facility; therefore, this section is not applicable.

#### 5.13.3 Drainage Systems from Undiked Areas [112.12(b)(3)]

There is no piping associated with the used cooking oil containers. Drainage from areas of the site that are outside of secondary containment (i.e. undiked areas) with a potential for a discharge due to operations at these containers include delivery trucks. Drainage from these areas could reach the storm water collection and conveyance system. Used cooking oil spilled in these undiked areas during truck loading could also reach the storm water conveyance system, if not properly managed. The potential for a discharge in these areas will be managed by blocking storm drains or stormwater conveyance ditches during all oil loading and unloading operations that occur in these areas, as described in Section 5.6.1.

#### 5.13.4 Diversion System for Final Discharge [112.12(b)(4)]

Through the means discussed in Section 5.13.3, the undiked areas at the facility will be managed with best management practices. Therefore, this section is not applicable.

#### 5.13.5 Facility Drainage Systems and Equipment [112.12(b)(5)]

The used cooking oil containers are not treated using a treatment system. As such, 40 CFR 112.12(b)(5) is not applicable.

#### 5.14 USED VEGETABLE OIL BULK STORAGE CONTAINERS [112.12(C)]

Pursuant to 40 CFR 112.2, the containers at the site that meet the definition of "bulk storage containers" include those noted in Table 4. The containers discussed in this Section include the used cooking oil containers included in Table 4.

## 5.14.1 Container Compatibility with Contents and Storage Conditions [112.12(c)(1)]

All containers storing oil at the JMU campus are constructed of materials that are compatible with oil.

#### 5.14.2 *Secondary Containment* [112.12(c)(2)]

As further discussed in Section 2.2.4, the used cooking oil containers will have adequate secondary containment that manages at least 100% of each tank's capacity within six months of the Plan certification (by July 31, 2015). Spill kits are available on site to be used as active spill containment for these containers.

## 5.14.3 Drainage of Uncontaminated Rainwater from Diked Areas [112.12(c)(3)]

There are no outside diked storage areas at the facility where rainwater could collect; therefore, this section is not applicable.

## 5.14.4 Corrosion Protection of Completely Buried Metallic Storage Tanks [112.12(c)(4)]

As all used cooking oil is stored in ASTs, there are no completely buried metallic storage tanks containing used cooking oil at the facility. The requirements in 40 CFR 112.12(c)(4) are not applicable to JMU.

### 5.14.5 Corrosion Protection of Partially Buried or Bunkered Metallic Tanks [112.12(c)(5)]

There are no partially buried or bunkered metallic tanks at the facility; therefore, this section is not applicable.

#### 5.14.6 Aboveground Tank Periodic Integrity Testing [112.12(c)(6)]

All aboveground storage tanks are visually inspected for leaks on a monthly basis, and records of the inspections are maintained using the checklist

found in Appendix C. Certified inspections are performed at recommended frequencies listed in Section 5.3.

#### 5.14.7 Leakage Through Defective Internal Heating Coils [112.12(c)(7)]

No AST at the JMU campus has internal heating coils. Therefore, this section is not applicable.

#### 5.14.8 Good Engineering Practice of Containers [112.12(c)(8)]

All storage tanks at the JMU campus are properly engineered, shop-built tanks. Visual methods are used to determine oil level in the used cooking oil containers. As such, an individual is present during all tank loading and unloading activities.

#### 5.14.9 Observation of Effluent Treatment Facilities [112.12(c)(9)]

There are no effluent treatment facilities that manage discharges from used cooking oil containers at JMU.

#### 5.14.10 Correction of Visible Discharges [112.12(c)(10)]

The bulk oil storage appurtenances at the facility are visually inspected monthly (refer to Section 5.3). If any discharges are noted during the inspection, they will be cleaned up promptly, and the cause of the release corrected to prevent future discharges.

#### 5.14.11 Position of Mobile or Portable Oil Storage Containers [112.12(c)(11)]

Mobile storage containers are not used to store used cooking oil at JMU. The requirements in 40 CFR 112.12(c)(11) are not applicable to the facility.

## 5.15 FACILITY TRANSFER OPERATIONS, PUMPING, AND FACILITY PROCESS [112.12(D)]

No transfer operations occur on-site; therefore, this section is not applicable.

#### 5.15.1 *Protection of Buried Piping* [112.12(d)(1)]

There is no regulated buried piping at the facility; therefore, this section is not applicable.

#### 5.15.2 *Terminal Connections* [112.12(*d*)(2)]

There are no terminal piping connections at the facility; therefore, this section is not applicable.

#### 5.15.3 Design of Pipe Supports [112.12(d)(3)]

There are no supported liquid piping systems associated with the used cooking oil storage containers; therefore, this section is not applicable.

## 5.15.4 Inspection of Aboveground Valves, Piping, and Appurtenances [112.12(d)(4)]

The used cooking oil ASTs are visually inspected monthly by JMU personnel to prevent discharges due to deterioration.

## 5.15.5 Protection of Aboveground Piping and Other Transfer Operations from Vehicular Traffic [112.12(d)(5)]

The used cooking oil containers at the facility do not contain piping.



Approximate Facility Boundary

Figure 1 – Site Location Map James Madison University SPCC Plan 800 Main St. Harrisonburg, Virginia







#### Appendix A

# SPCC Plan – Review and Evaluation Form James Madison University

#### Harrisonburg, VA

In accordance with 40 CFR Part 112.5(b), the following provides for the required documentation of the review and evaluation of JMU's SPCC Plan. This plan is required to be reviewed at least once every five years (from the date of the final plan) and when changes are made (as described in Section 2.1.2).

Date of SPCC Plan  review:3/15/19  Review performed By:Dan Goldstien (print name)  (signature)	"I have completed the review and evaluation University SPCC Plan on 3/15/19 (circle one) amend this SPCC Plan as a result."	of the James Madison (date), and will / will not
Date of SPCC Plan review:		
Review performed by:	"I have completed the review and evaluation University SPCC Plan on (circle one) amend this SPCC Plan as a result."	
(print name)		
(signature)		
Date of SPCC Plan review:		
Review performed by:(print name)	"I have completed the review and evaluation University SPCC Plan on (circle one) amend this SPCC Plan as a result."	
(signature)		

Make additional copies of this page, as necessary.

## Appendix B FACILITIES MANAGEMENT HAZWOPER INCIDENT REPORT

#### **Time and Place of Incident**

Where the incident occurred (building name, floor, room number, etc.)

Date: Tim	ne: a.m. p.m.	
Person incident reported to:		
Watercourse affected?Ex	xplain	
Weather Conditions:		
	<b>Employee Information</b>	
First HAZWOPER team me		
Name:	Work Phone: _	
People Soft ID:	Department: _	
Additional HAZWOPER res		
Name:	People Soft ID	):
Name:	People Soft ID	):
Name:		):
Name:	People Soft ID	):
	Nature and Cause of Incident	
Chemical Spilled	Amount Spilled	
	pject causing spill – Specify part of mac	
venicie, maciniie, toor or or	ofect causing spin – Specify part of mac	ZiiiiiC
Was safety equipment used?	YES NO Was PPE used	? YES NO
Describe fully how spill occ		
Was the spill contained?	If not please explain:	
Describe fully what/how saf	fety equipment/PPE was used:	
How could this incident bee	n avoided'?	
West and an transacting VEC	NO ODC # shoused	
Work order turned in? YES	NO ORG # charged	
Employee Signature	Witness Signature	Work Request #

## Appendix C Monthly Aboveground Petroleum Tank Inspections

Tank shell surface, including any peeling areas, welds, rivets/bolts, seams, and foundation visually inspected for areas of rust and other deterioration.  Check ground surface for signs of leakage, spillage, stained or discolored soil.  Check the exterior tank shell for signs of leakage or damage.  Inlet and outlet piping and flanges inspected for leakage.  Check secondary containment dike for accumulation of fuel.  Check secondary containment dike for accumulation of water, debris (if present).  Check that containment dikes are in satisfactory condition,  Leak detection equipment in satisfactory condition (if present).  Tank water bottom draw-offs not in use are secured.  Accumulated water must be inspected for visible sheen prior to pumping dike/sump. If minor sheen is indicated, use oil absorbent pads to remove any petroleum from surface. Document which dike(s) needed to be drained on the 'Comments' line.  Comments:  Location (volume)  Alternate Fuel Lab (275, 275)  EAM Building (500)  University Services (500)  Transportation Center (6300, 270, 275)  Landscaping Building (660, 560)  East Campus Power Plant (12,000)  WMRA (50)  Memorial Hall (1000)  North Campus (275, 1,000)  Medical Arts Complex (500)  Clast Cacadnei (530)  Ashby Hall (100)  Converse Hall (150)  College Center (850)  Converse Hall (100)  Frye Building (500)  University Services (250)  Washen Hall (120)  Wishen Hall (120)	Date	Ву	
indicated, use oil absorbent pads to remove any petroleum from surface. Document which dike(s) needed to be drained on the 'Comments' line.    Comments:	for areas of rust and other deterioration.  Check ground surface for signs of leakage, the check the exterior tank shell for signs of leakage. Inlet and outlet piping and flanges inspected the check space between inner and outer tank the check secondary containment dike for accurate the check that containment dikes are in satisfact Leak detection equipment in satisfactory containment dikes.	spillage, stained or disakage or damage. ed for leakage. for accumulation of full amulation of water, dectory condition. ondition (if present).	scolored soil.
Location (volume)	indicated, use oil absorbent pads to remove		
Alternate Fuel Lab (275, 275)  E&M Building (500)  University Services (500)  Transportation Center (6,300, 270, 275)  Landscaping Building (560, 560)  East Campus Power Plant (12,000)  WMRA (50)  Memorial Hall (1000)  North Campus (275, 1,000)  Medical Arts Complex (500)  CISAT Academic I (550)  Ashby Hall (100)  Carrier Library (100)  Chesapeake Hall (150)  College Center (350)  Converse Hall (100)  Convocation Center (100)  Eagle Hall (100)  Frye Building (500)  CISAT A-2 (150)  Hillside (50)  Music Building (75)  Potomac Hall (250)  Shenandoah Residence Hall (200)  Taylor Hall (120)  University Services (250)  UREC (325)  Wampler Hall (200)	Comments:		
Inspection Checklist 1 of 2 James Madison University	Alternate Fuel Lab (275, 275) E&M Building (500) University Services (500) Transportation Center (6,300, 270, 275) Landscaping Building (560, 560) East Campus Power Plant (12,000) WMRA (50) Memorial Hall (1000) North Campus (275, 1,000) Medical Arts Complex (500) CISAT Academic I (550) Ashby Hall (100) Carrier Library (100) Chesapeake Hall (150) College Center (350) Converse Hall (100) Eagle Hall (100) Frye Building (500) CISAT A-2 (150) Hillside (50) Music Building (75) Potomac Hall (250) Shenandoah Residence Hall (200) Taylor Hall (120) University Services (250) UREC (325) Wampler Hall (200) Wilson Hall #1 (250, 50)		

Champions Dr. Parking Deck (150) Gifford Hall (100) Logan Hall (50) Telecom (Power Plant) (112) Athletic Performance Center (250) Bookstore (200) CISAT A-3 (300) East Campus Library (660) East Campus Dining Hall (278) WCD (D Hall) (1,900) Harrison Annex (85) Hoffman Hall (119) Wayland Hall (140) Massanutten Hall (595, 500) Telecom #3 (West) (65) Warsaw St. Parking Deck (475) Performing Arts Center (356) Philips Center (250) Burruss Hall (278) Spotswood Hall (140)	
Spotswood Hall (140) Miller Hall (720)	 -
Memorial Hall (150)	 -
Memorial Stadium (Baseball) (208)	-
Zane Showker Hall (1,000)	 -
USB Annex (472)	 -
Chesapeake (Parking Deck) (350)	 -

# Appendix D SPCC Plan – Employee Training Attendance Record James Madison University

Harrisonburg, VA

Training Date:	Instructor:
Training Location:	Training Topic(s):

In accordance with 40 CFR Part 112.7(f)(1) & 9 VAC 25-91-130, JMU is required to provide oil-handling personnel with oil spill prevention and control training. This training will be conducted annually for existing employees and within two weeks (from the time of hire) for new employees in conjunction with HAZWOPER training. An employee's signature on this form is an acknowledgment of receiving this training.

I acknowledge that I have received oil spill prevention training, and that the following subjects have been covered:

- Discussion of why an SPCC Plan is required by the USEPA
- Overview of applicable regulations, including DEQ's Aboveground Storage Tank regulations
- Overall review of JMU's SPCC Plan
- Description of the operation and maintenance of equipment to prevent the discharge of oil
- JMU's requirements for oil spill discovery, initial response actions, and necessary internal and external notifications
- Spill containment, control, and cleanup procedures and techniques
- Discussion of past facility spill events

Employee Name (print)	Employee Name (signature)	Date

Make additional copies of this form, as necessary.

# Appendix E SPCC Plan – Quarterly Briefing Record James Madison University

Harrisonburg, VA

Training Date:	Training Topic(s	s):
with handling petroleum product procedures, discussion of new p	conduct monthly personnel brients. Topics will include procedure betroleum storage locations, or Stations personnel have participate	res for handling spills, tank fillin PCC plan review.
Employee Name (print)	Employee Name (signature)	Date

Make additional copies of this form, as necessary.