Facilities Services Department
MTSU Box 32
1301 East Main Street
Murfreesboro, TN 37132
615-904-8400

MIDDLE TENNESSEE STATE UNIVERSITY.

From: Joe Whitefield
Joe Whitefield, Assistant Vice President
Facilities Services

Re: Middle Tennessee State University
Spill Prevention, Control, and Countermeasure Plan

Date: February 2022

The following plan was prepared for Middle Tennessee State University by Ensafe per Title 40 of the Code of Federal Regulations, Part 112. The bulk of the report describes conditions on campus, such as location, type, and volume of both above ground and underground storage structures. The report also outlines the appropriate inspections to be performed as well as the frequency of said inspections. MTSU's Environmental Health and Safety Department is responsible for tank inspections, employee education, and permit evaluation.

In the unlikely event of a spill on campus, responding personnel should pay special attention to the following sections of the attached report.

Section 16 of the report details the steps taken in the event of spills.

Section 17 provides details of the required written report and to whom reporting is required following a spill.

Also of note, are the appropriate campus contacts in the event of a spill. As campus is ever growing and staff changes, please note the appropriate contact personnel on the following page.

SPCC Plan Administrator/:	Katherine Green, P.E.
Primary Emergency Contact	(615) 494-8708 (office)
	(615) 473-6136 (mobile)
Secondary Emergency Contact:	Mark Hatcher
	(615) 898-5831 (office)

ENSAFE
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October 8, 2019

Plan Administrator
Tennessee Board of Regents
Middle Tennessee State University
1301 East Main Street
Murfreesboro, Tennessee 37130

Re: Spill Prevention, Control, and Countermeasure Plan
Middle Tennessee State University

To Whom It May Concern:

Please find enclosed the revised Spill Prevention, Control, and Countermeasure Plan for the above referenced facility. This Plan has been prepared in accordance with requirements set forth in Title 40 Code of Federal Regulation Part 112. Please review the Plan and sign the Management Approval form (page i) stating that the necessary resources to implement the plan will be allocated. In addition, please sign the Certification of Substantial Harm Determination form (page vi) stating that none of the conditions listed on the form apply to your facility.

Once the plan has been signed, the following tasks should be performed:

1) Train all oil-handling employees in the proper management and storage of oil (broadly defined as any type of vegetable, animal, or petroleum-based liquid or semisolid) at the facility and procedures to follow in the event that a release of oil occurs. EnSafe can perform this training one time at no charge to the facility. Please contact us for scheduling.

2) If not already being done, conduct and document monthly inspections of all oil containers and spill response materials/equipment.

3) Review and correct any remaining regulatory deficiencies noted in the Executive Summary.

Regulatory deficiencies should be corrected within 6 months of the date of this report. Instructions, checklists, and logs are provided in the SPCC Plan to assist with these activities.

While there is no specific individual currently identified as the SPCC Plan Administrator, once that position has been filled, the Plan should be revised to include the name and emergency phone number of the new Plan Administrator.

If you have any questions or require additional information, please feel free to contact EnSafe at 901-372-7962.

Sincerely,

EnSafe Inc.

By: Geoffrey C. Pope, PE
Environmental Engineer, SPCC Project Manager

EnSafe Contract Number: SBC529/000-01-2017
EnSafe Project Number 0888821830
SES GS460.000.05; PITS No. TB.166.009

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

MIDDLE TENNESSEE STATE UNIVERSITY
1301 East Main Street
Murfreesboro, Tennessee 37130

Prepared for:

State of Tennessee
Tennessee Board of Regents
Middle Tennessee State University
1301 East Main Street
Murfreesboro, Tennessee 37130

October 2019

EnSafe Contract: SBC529/000-01-2017
SES No.: GS.460-000-05
PITTS No.: TB.166.009
EnSafe Project Number: 0888822340

220 Athens Way, Suite 410
Nashville, Tennessee 37228
615-255-9300 | 800-588-7962
www.ensafe.com

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MANAGEMENT APPROVAL

This Spill Prevention, Control, and Countermeasure (SPCC) Plan was prepared in accordance with good engineering practices and has the full approval of management. Management will use whatever personnel, equipment, and materials are deemed necessary to control and mitigate releases at Middle Tennessee State University. Management is fully committed to the implementation of the requirements set forth in this SPCC Plan. The priorities of response team members are based upon protection of human life, mitigating environmental harm, and protection of property, respectively. This amended SPCC Plan will be implemented as described in this Plan within 6 months and will be reviewed and evaluated at least once every 5 years.

I have reviewed the recommendations for regulatory compliance as presented in this SPCC Plan. By virtue of my office, I have authority to approve this document on behalf of the facility and to commit the necessary resources to implement the Plan to comply with existing applicable federal and state laws.

Signature	Date Signed
Printed Name	Title

RECORD OF OWNER/OPERATOR PLAN REVIEWS/AMENDMENTS

In accordance with 40 Code of Federal Regulations 112.3 and 112.5 of the Spill Prevention, Control, and Countermeasure (SPCC) Plan regulations, there are two situations that require an amendment to the Middle Tennessee State University (MTSU) SPCC Plan.

Situation A

MTSU must review and amend the SPCC Plan when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shore lines . . . or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

Examples of changes that may require amendment of the SPCC Plan include, but are not limited to, any of the following:

- Commissioning or decommissioning containers
- Replacing, reconstructing, or moving containers
- Replacing, reconstructing, or installing piping systems
- Construction or demolition that might alter secondary containment structures
- Changes of product or service
- Revising standard operation or maintenance procedures at a facility

An amendment made under this situation must be prepared within 6 months of the facility change and implemented as soon as possible, but not later than 6 months following preparation of the amendment.

Situation B

MTSU must complete a review and evaluation of the SPCC Plan at least once every 5 years from the date your last review was required under this part. As a result of this review and evaluation, you must amend your SPCC Plan within 6 months of the review 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 as described in §112.1(b) from the facility. You must document your completion of the review and evaluation, and you must sign a statement as to whether you will amend the SPCC Plan, either at the beginning or end of the SPCC Plan, or in a log or an appendix to the SPCC Plan. The following words will suffice:

I have completed review and evaluation of the SPCC Plan for Middle Tennessee State University on (date) and will (will not) amend the SPCC Plan as a result.

A Tennessee-licensed, professional engineer must review and certify any technical amendments to this SPCC Plan for it to effectively satisfy the SPCC rules.

An amendment made under this situation must be implemented as soon as possible, but not later than 6 months following preparation of the amendment.

Tables for Record of Review and Amendment

To facilitate SPCC Plan reviews and amendments, the following two tables are provided.

OWNER/OPERATOR RECORD OF FIVE-YEAR REVIEWS

I have completed review and evaluation of the SPCC Plan for MTSU on the date indicated below and will (will not) amend the Plan as a result.

Signature of Reviewer	Date of Review	Will Amend the Plan	Will Not Amend the Plan
	October 2024		

OWNER/OPERATOR RECORD OF SPCC PLAN AMENDMENTS

If applicable, briefly describe the type of amendment (i.e., administrative or technical). State how the amendment was completed (e.g., page change, addendum). Provide the date of the amendment and the printed name/position of person responsible for the amendment.

Description of Change (Administrative or Technical)	Date Entered	Posted By
Technical Amendment — SPCC Plan Update	September 2009	Quantum Environmental & Engineering Services, LLC
Technical Amendment — SPCC Plan Update	September 2012	Quantum Environmental & Engineering Services, LLC
Administrative Amendment — Update Contact Information	January 2013	EnSafe Inc.
Technical Amendment — SPCC Plan Update	September 2013	EnSafe Inc.
Technical Amendment — Remove references to storm water vaults at Student Union and College of Education and add new generator tank at new Science Building	September 2014	EnSafe Inc.
Technical Amendment — SPCC Plan Update	October 2019	EnSafe Inc.

PROFESSIONAL ENGINEER'S CERTIFICATION

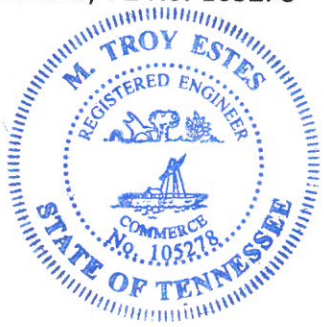
In accordance with Title 40 Code of Federal Regulations (CFR) 112.3(a), I hereby certify that I have or my agent has visited and examined the facility in accordance with 40 CFR 112.3(d), and being familiar with the provisions of 40 CFR 112, United States Environmental Protection Agency Regulations on Oil Pollution Prevention, attest that the Spill Prevention, Control, and Countermeasure (SPCC) Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part; that procedures for required inspections and testing have been established; and that the SPCC Plan is adequate for the facility.

This certification in no way may be construed as a warranty by the Licensed Professional Engineer that the adequate SPCC Plan will be fully implemented, and in no way relieves the owner or operator of the facility of its duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR 112.

This SPCC Plan supersedes the previous SPCC Plan dated September 2013

M. Troy Estes — Signature
M. Troy Estes, PE
State of Tennessee, PE No. 105278

10/8/19 — Date



CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

FACILITY NAME: Middle Tennessee State University
FACILITY ADDRESS: 1301 East Main Street
Murfreesboro, Tennessee 37130

1. 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_____ NO__X__

2. 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 enough to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?
   YES_____ NO__X__

3. 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 (as calculated using the appropriate U.S. Environmental Protection Agency formula or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
   YES_____ NO__X__

4. 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 (as calculated using the appropriate U.S. Environmental Protection Agency formula or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking-water intake[2]?
   YES_____ NO__X__

5. 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 spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
   YES_____ NO__X__

Certification

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

Signature _____ **Date Signed** _____

Name _____ **Title** _____

1 If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.
2 For the purposes of 40 CFR 112, public drinking water intakes can be compared to public water systems as described at 40 CFR 143.2(c).

EXECUTIVE SUMMARY

This Spill Prevention, Control, and Countermeasure (SPCC) Plan for Middle Tennessee State University in Murfreesboro, Tennessee, was developed per 40 Code of Federal Regulations 112. This SPCC Plan amends and supersedes the previous SPCC Plan dated September 2013.

There are three regulatory deficiencies as follows:

112.7(c) and 112.8(c)(2) — Adequate secondary containment is not provided for the: 300-gallon Student Union Building used cooking oil container, 300-gallon Keathley University Center used cooking oil container, 300-gallon Corlew Hall used cooking oil container, or 300-gallon James Union Building used cooking oil container. The capacity of secondary containment must be equivalent to the primary container capacity (e.g., 300 gallons) plus sufficient freeboard to allow for rainfall accumulation if exposed to precipitation (i.e., 6 inches or 30 gallons, whichever is greater).

112.7(g) — Adequate security is not provided for the two 20,000-gallon Co-Generation Plant diesel tanks. The service road near the two 20,000-gallon Co-Generation Plant diesel tanks remains open to the public, the area is not manned 24 hours per day, 7 days a week, and the tanks are not fenced to prevent access. It is recommended that fencing or gating be installed to provide protection of the 20,000-gallon tanks and their associated aboveground piping.

The following best engineering practices are also recommended for Middle Tennessee State University:

Aboveground storage tanks with a capacity greater than 5,000 gallons are required to have integrity inspections performed by certified tank inspectors at a minimum frequency of every 20 years. The last inspection of the two 20,000-gallon Co-Generation Plant diesel tanks occurred in 1998. A formal integrity inspection by a certified inspector is needed for these two tanks, if not recently completed.

While the secondary containment dike for the two 20,000-gallon Co-Generation Plant diesel tanks meets the general industry standard for containing 110% of the largest tank, the containment is not large enough to store rainfall from a 25-year/24-hour storm event. Although this is not considered a regulatory deficiency, it is recommended that the containment dike height be increased by approximately one inch to contain the additional volume from the storm event.

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1.0 INTRODUCTION

112.1(b) Except as provided in paragraph (d) of this section, this part applies to any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming 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 part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) that has oil in: (1) Any aboveground container; (2) Any completely buried tank as defined in § 112.2; (3) Any container that is used for standby storage, for seasonal storage, or for temporary storage, or not otherwise "permanently closed" as defined in § 112.2; (4) Any "bunkered tank" or "partially buried tank" as defined in § 112.2, or any container in a vault, each of which is considered an aboveground storage container for purposes of this part.

Non-transportation-related facilities refer to all fixed facilities, including support equipment, but excluding certain pipelines, railroad tank cars en route, transport trucks en route, and equipment associated with the transfer of bulk oil to or from water transportation vessels. The term also includes mobile or portable facilities, such as drilling or workover rigs, production facilities, and portable fueling facilities while in a fixed, operating mode.

A facility is regulated under 40 CFR 112 if the completely buried oil storage capacity is over 42,000 gallons or the aggregate aboveground oil storage capacity is over 1,320 gallons. The aboveground storage capacity is based on containers with a capacity of 55 gallons or greater.

Since the Middle Tennessee State University (MTSU) campus in Murfreesboro, Tennessee, has an aboveground storage capacity exceeding 1,320 gallons of oil in containers 55 gallons or larger, the facility is subject to the federal regulation for Oil Pollution Prevention, Code of Federal Regulations, Title 40, Part 112 (40 Code of Federal Regulations [CFR] 112). The regulation requires Spill Prevention, Control, and Countermeasure (SPCC) Plans to be implemented by facilities with oil storage units or facilities that store or transfer oil. The purpose of the SPCC Plan is to establish procedures, methods, equipment, and other criteria to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon navigable waters of the United States or adjoining shorelines. The facility stores petroleum products onsite that could potentially discharge to Sinking Creek. The MTSU facility does not qualify for the exemptions listed in 40 CFR 112.1(d).

1.1 Plan Update and Amendment

This SPCC Plan for MTSU will be reviewed by the owner or operator at least once every 5 years as outlined in the Owner/Operator Record of Five-Year Reviews' page (page iv). Furthermore, the SPCC Plan is required to be amended within 6 months of any material changes to the facility and the changes implemented within 6 months of the SPCC Plan amendment. Any technical amendments to the SPCC Plan must be reviewed and certified by a Tennessee-licensed, professional engineer.

1.2 Plan Purpose and Availability

The SPCC Plan will address the following:

- Spill prevention — System components and characteristics, and operating procedures to prevent oil spills.
- Spill control — Control measures to prevent a spill from entering navigable waters.
- Spill countermeasures — Countermeasures to contain, cleanup, and mitigate the effects of an oil spill that could impact navigable water.

A current copy of the SPCC Plan will be maintained at the facility. The SPCC Plan will be kept accessible to facility personnel, responders, and inspectors.

1.3 Plan Focus

This SPCC Plan is designed to address oil-containing structures at MTSU, except for any container with capacity less than 55 gallons and pole-mounted electrical transformers, which typically have capacities of 20 to 30 gallons, and therefore, are not subject to the SPCC rules. The major high-risk oil-containing structures will receive special attention to expedite and simplify the SPCC Plan development, implementation, and amendment. Low-risk oil containing structures, such as drums, are addressed as well, but not at the same level of detail as larger-capacity containers. The level of detail is intended to be commensurate with the level of risk (i.e., potential for oil release and subsequent harm/damage to navigable waterways).

As discussed in the preamble of the final SPCC rule published July 17, 2002, the following types of oil filled equipment are specifically excluded from the U.S. Environmental Protection Agency (U.S. EPA) definition of "bulk storage container":

- In-use electrical equipment (e.g., transformers, circuit breakers, and capacitors).
- Operating equipment (e.g., lawn mowers, snow blowers, elevator lifts, motive items).
- Manufacturing equipment (e.g., hydraulic presses, hydraulic reservoirs, and enclosed lubricating systems).

- The lubricating oil compartments on generators are considered oil-filled operational equipment (OFOE); however, the fuel tanks are considered bulk storage containers and require secondary containment.

In the final rule, U.S. EPA clearly differentiated between the bulk storage of oil and the operational use of oil. Facilities with equipment containing "operational use" oil are not required to comply with the strict provisions of 40 CFR 112.8(c), such as secondary containment, testing and inspection, and oil level gauges. The intent of 40 CFR 112.8(c) is to ensure oil spill prevention provisions are effectively in place for facilities that practice the bulk storage of oil.

However, OFOE must meet other SPCC requirements, such as the general oil spill prevention requirements as described in 40 CFR 112.7(c) — to provide appropriate containment and/or diversionary structures (e.g., dikes, curbing, culverts, weirs/barriers, retention ponds, drainage systems, or sorbent material) to prevent discharged oil from reaching a navigable watercourse or affecting certain natural resources. The operator must also have an inspection or monitoring program for the equipment to detect a failure and/or discharge. An individual impracticability determination for this equipment is not required.

1.4 Oil-Water Separators/Grease Traps

Section 112.1(d)(6) exempts oil-water separators (OWS) used exclusively for wastewater treatment that are flow-through separators and are not engaged in a static process in an isolated container. A grease trap that intercepts and congeals oil and grease from liquid waste is considered wastewater treatment and exempt from SPCC rules. However, a separate container storing oil removed from an exempt separator is considered a bulk storage container and is subject to the SPCC rule requirements.

1.5 Plan Organization and Regulatory References

In general, this SPCC Plan follows the sequence of the regulatory requirements outlined in 40 CFR 112.7 and 112.8, and discusses the facility's conformance to those applicable regulatory requirements. For sections with regulatory references, the federal SPCC regulatory requirements are summarized in Table 1-1.

Table 1-1
Regulatory Requirement and Text Cross-Reference Matrix

Topic	CFR Citation	Spill Prevention, Control, and Countermeasure Plan Page or Section
Requirement for an SPCC Plan	40 CFR 112.1	1.0 and pages ii- iii
Professional Engineer Certification	40 CFR 112.3(d)	page v
Plan Available Onsite	40 CFR 112.3(e)	1.2
Reportable Discharges	40 CFR 112.4(a)	17.0
Changes Required by Regional Administrator Implemented	40 CFR 112.4(d),(e)	18.1
Plan Amendment — Change Affecting Potential for Discharge	40 CFR 112.5(a)	1.1
Plan Amendment — 5-Year Plan Review and Amendment	40 CFR 112.5(b)	1.1 and page iv
Professional Engineer Certification of Technical Amendments	40 CFR 112.5(c)	1.1 and page v
Summary of Deficiencies from Rule Requirements	40 CFR 112.7(a)(2)	Executive Summary
Facility Diagram	40 CFR 112.7(a)(3)	3.1, Appendix A
Oil Storage	40 CFR 112.7(a)(3)(i)	3.2, Table 3-1, Appendix A
Discharge Prevention and Routine Handling	40 CFR 112.7(a)(3)(ii)	3.2, 10.0, and 16.0
Discharge or Drainage Controls	40 CFR 112.7(a)(3)(iii)	3.2, 14.0, and Table 3-1
Countermeasures for Discharge Discovery, Response, and Cleanup	40 CFR 112.7(a)(3)(iv)	5.0 and 17.0
Methods of Disposal of Recovered Materials	40 CFR 112.7(a)(3)(v)	17.0
Contact List and Telephone Numbers	40 CFR 112.7(a)(3)(vi)	2.2, 17.0
Discharge Reporting Procedures	40 CFR 112.7(a)(4)	2.2, 17.2
Discharge Emergency Response Procedures	40 CFR 112.7(a)(5)	17.0
Potential Spill Predictions, Volumes, Rates, and Control	40 CFR 112.7(b)	4.0
Drainage Prevention Diversionary Structures and Containment	40 CFR 112.7(c)	5.0
Impracticality of Secondary Containment	40 CFR 112.7(d)	6.0
Inspection/Record Keeping	40 CFR 112.7(e)	7.0
Personnel Training and Spill Prevention Procedures	40 CFR 112.7(f)(1-3)	8.0
Personnel Instructions	40 CFR 112.7(f)(1)	8.1
Designated Person Accountable for Spill Prevention	40 CFR 112.7(f)(2)	8.2
Spill Prevention Briefings	40 CFR 112.7(f)(3)	8.3
Site Security	40 CFR 112.7(g)	9.0
Loading/Unloading Operations	40 CFR 112.7(h)(1-3)	10.0
Adequate Secondary Containment for Loading/Unloading Racks	40 CFR 112.7(h)(1)	10.1
Warning or Barrier System for Vehicles	40 CFR 112.7(h)(2)	10.2
Vehicles Examined for Lowermost Drainage Outlets before Leaving	40 CFR 112.7(h)(3)	10.3
Brittle Fracture or Other Catastrophe of Field-Constructed Tanks	40 CFR 112.7(i)	11.0
Conformance with Other Applicable Requirements	40 CFR 112.7(j)	12.0
Oil-Filled Operational Equipment	40 CFR 112.7(k)	13.0
Drainage Control	40 CFR 112.8(b)(1-5)	14.0
Drainage from Diked Storage Areas	40 CFR 112.8(b)(1)	14.1
Valves Used on Diked Storage Areas	40 CFR 112.8(b)(2)	14.2
Plant Drainage Systems from Undiked Areas	40 CFR 112.8(b)(3)	14.3
Final Discharge of Drainage	40 CFR 112.8(b)(4)	14.4

Table 1-1
Regulatory Requirement and Text Cross-Reference Matrix

Topic	CFR Citation	Spill Prevention, Control, and Countermeasure Plan Page or Section
Facility Drainage Systems and Equipment	40 CFR 112.8(b)(5)	14.5
Bulk Storage Tanks/Secondary Containment	40 CFR 112.8(c)(1-11)	15.0
Container Compatibility with Its Contents	40 CFR 112.8(c)(1)	15.1
Diked Area Construction and Containment Volume for Storage Containers	40 CFR 112.8(c)(2)	15.2
Diked Area, Inspection, and Drainage of Rainwater	40 CFR 112.8(c)(3)	15.3
Corrosion Protection of Buried Metallic Storage Tanks	40 CFR 112.8(c)(4)	15.4
Corrosion Protection of Partially Buried Metallic Tanks	40 CFR 112.8(c)(5)	15.5
Aboveground Tank Periodic Integrity Assessment	40 CFR 112.8(c)(6)	15.6
Control of Leakage through Internal Heating Coils	40 CFR 112.8(c)(7)	15.7
Liquid-Level Sensing Devices	40 CFR 112.8(c)(8)	15.8
Observation of Disposal Facilities for Effluent Discharge	40 CFR 112.8(c)(9)	15.9
Visible Oil Leak Corrections from Tank Seams and Gaskets	40 CFR 112.8(c)(10)	15.10
Appropriate Position of Mobile or Portable Oil Storage Containers	40 CFR 112.8(c)(11)	15.11
Facility Transfer Operations	40 CFR 112.8(d)(1-5)	16.0
Buried Piping Installation Protection and Examination	40 CFR 112.8(d)(1)	16.1
Not-In-Service and Standby Service Terminal Connections	40 CFR 112.8(d)(2)	16.2
Pipe Supports Design	40 CFR 112.8(d)(3)	16.3
Aboveground Valve and Pipeline Examination	40 CFR 112.8(d)(4)	16.4
Aboveground Piping Protection from Vehicular Traffic	40 CFR 112.8(d)(5)	16.5

2.0 FACILITY INFORMATION

2.1 Facility Owner/Operator, Address, and Telephone:

SPCC Plan Administrator: To Be Determined
Facility Owner: State of Tennessee
Facility Operator: Tennessee Board of Regents
Address: 1301 East Main Street
Murfreesboro, Tennessee 37130

Facility Contacts:
Primary: Plan Administrator (To Be Determined)
615-494-8708 (Office)

Secondary Contacts: Terry Logan, EHS Officer/Emergency Response
615-898-5784 (Office)
615-969-5804 (Cell)

2.2 Facility Contact(s)

112.7(a)(3)(vi): You must also address in your plan contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate federal, state, and local agencies who must be contacted in case of a discharge as described in 112.1(b).

Primary Contacts for the SPCC Plan:

Table 2-1
Primary SPCC Plan Contacts

Name, Title/Position	Telephone Numbers	
	Primary	Emergency/Alternative
Plan Administrator (To be determined)	615-494-8708	—
Terry Logan, EHS Officer/Emergency Response	615-898-5784	615-969-5804
EnSafe Inc., Spill/Spill Prevention, Control, and Countermeasure Plan and Tank Consultant	615-255-9300	888-590-8885
Laura Waynick, Department of General Services Environmental Compliance Manager	615-428-8101	615-428-8101

2.3 Facility Operations and Oil Storage Overview

MTSU is a public university operated by the State of Tennessee, Tennessee Board of Regents. Located in Murfreesboro, Rutherford County, Tennessee, MTSU provides educational opportunities for approximately 26,000 full- and part-time college students. The campus is comprised of approximately 170 buildings, including the dormitories/residence halls, cafeterias,

learning centers, and support/maintenance facilities. The campus is currently undergoing expansion, with additional structures under construction. MTSU provides on-campus housing, with students/staff present 24 hours per day, 7 days a week, and security is present at all times. The facility sits on approximately 500 acres, with portions of the campus within one-eighth mile of Sinking Creek. Appendix A contains a site location topographic map (Figure 1) and a facility layout map (Figure 2) that shows an overview of MTSU including the facility boundary, buildings, all SPCC-regulated oil storage locations, as well as potential spill flow directions.

MTSU requires an SPCC Plan primarily due to the diesel aboveground storage tanks (ASTs) at the Co-Generation Plant and ASTs associated with emergency generators located throughout campus. The facility has additional aboveground storage for used oil, coolant, used cooking oil/grease, hydraulic elevators, diesel fuel associated with a portable fuel truck, drum storage, and conductive oil for electrical transformers. Multiple pad-mounted transformers are located on the site. The pad-mounted transformers, owned by Murfreesboro Electric Company and MTSU, have capacities ranging from 75 to 2,500 gallons of conductive oil with unknown polychlorinated biphenyl content.

Oil storage containers and OFOE are inventoried in Table 3-1 and Figure 2. There are 19 SPCC Rules-regulated aboveground bulk storage tanks at the facility discussed further in Section 14.2 and listed on Table 3-1:

- two 20,000-gallon diesel Co-Generation Plant tanks
- one 2,500 gallon diesel new Science Building Generator Tank
- one 3,000-gallon diesel Deere Hall generator tank
- one 1,000-gallon diesel Floyd Stadium generator tank
- one 850-gallon diesel Student Union Building generator tank
- one 660-gallon diesel College of Education generator tank
- one 500-gallon diesel Davis Science Building generator tank
- one 480-gallon used oil container at the Maintenance Complex
- one 400-gallon coolant Co-Generation Plant Oil Coolers tank
- one 350-gallon used cooking oil container at the Student Union Building
- one 300-gallon used cooking oil container at the Student Union Building
- one 340-gallon diesel James E. Walker Library generator tank
- one 300-gallon used oil container at Corlew Hall
- one 300-gallon used cooking oil container at Keathley University Center

- one 300-gallon used cooking oil container at James Union Building
- one 100-gallon diesel John Bragg Mass Communication Building generator tank
- one 500-gallon diesel Cope Administration Building generator tank
- one 100-gallon diesel James Union Building generator tank

Regulated operational equipment, including the 100-gallon diesel mobile fueling truck, is discussed in more detail in Section 15. Regulated mobile/portable containers, including 55-gallon drums, are discussed further in Section 15.

The facility has two petroleum underground storage tanks (USTs): one 10,000-gallon diesel UST and one 10,000-gallon gasoline UST. Both are associated with the vehicle fueling pumps located near the maintenance complex. The USTs are exempt from SPCC requirements as they regulated by the Tennessee Department of Environment and Conservation's (TDEC) Division of Underground Storage Tanks.

OWSs are considered process waters or wastewater treatment containers; as such, they are exempt from the SPCC Rules. (Onsite OWSs are inventoried in Table 3-1 for informational purposes only.) The facility operates one OWS at the Motor Pool at the Maintenance Complex. When nearing capacity, the facility contracts a third-party vendor to remove petroleum, oils, and lubricants (POLs) from the OWS.

There are additional process areas located throughout the facility that may contain small amounts (less than 55 gallons) of oil-water mixtures. These processes are not subject to these requirements of the SPCC Rules; however, they will be addressed in this Plan where appropriate as an effort to implement proper management practices of oil within the facility.

2.4 Drainage Pathway and Distance to Navigable Waters

Figure 2 in Appendix A shows storm water drainage patterns. A majority of the facility's storm water is combined and conveyed via ditches, swales, underground piping, and curbed roads. On-campus storm water is conveyed via these features in the City of Murfreesboro Separate Storm Sewer System (MS4). The water then travels in a generally westerly direction via the MS4 ditches/culverts to Sinking Creek. The remaining storm water leaves the property as sheet flow, infiltrates into the soil, or evaporates from natural depressions/paved areas. This facility maintains several Storm Water Pollution Prevention Plans at various locations across campus (dependent upon activities occurring in each location).

3.0 PETROLEUM STORAGE INFORMATION

3.1 Facility Diagram

112.7(a)(3): Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as "exempt" underground tanks that are otherwise exempted from the requirements of this part under §112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under §112.1(d)(11).

Figure 2 in Appendix A shows the locations and contents of all oil storage containers with capacities of 55 gallons or more.

3.2 Oil Storage, Prevention, and Control

112.7(a)(3)(i): You must also address in your Plan the type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities.; 112.7(a)(3)(iii): You must also address in your Plan discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge.

Table 3-1 provides detailed information on all oil storage containers and OFOE identified at the facility that are subject to SPCC requirements, which includes 19 ASTs, drums, and OFOE. Information provided includes location, container type, container capacity, substance stored, secondary containment, and flow direction/drainage basin.

Sections 10 and 16 provide information on oil transfer operations.

3.3 Permanently Closed Tanks

ASTs that are inactive, but not permanently closed, are still subject to the requirements of 40 CFR 112, including regular inspections and adequacy of secondary containment. To avoid these requirements, a tank must be "permanently closed" in accordance with the definition per 40 CFR 112 shown as follows.

40 CFR 112.2 Definitions:	
Permanently closed means any container or facility for which:	
(1)	All liquid and sludge have been removed from each container and connecting line; and
(2)	All connecting lines and piping have been disconnected from the container and blanked off (i.e., capped or blank flanged), all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

There are currently no inactive or permanently closed tanks at this facility.

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Co-Generation Plant Diesel Tanks 	AST	Steel/Steel	N/N	Visible clock gauge, emergency shut-off, locked fill ports, diked containment area	Diesel/ 2 @ 20,000	~25,400	1998	West/Concrete dike, then to grass	Concrete dike
Science Building Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/ 2,500	>2,500	UK	South/Integral containment, then to concrete pad, then to soil	Integral containment/ Concrete pad, then pavement and curbs
Deere Hall Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/ 3,000	>3,000	UK	South/Integral containment, then concrete pad, then grass	Integral containment/ Concrete pad

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Floyd Stadium Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/ 1,000	>1,000	UK	South and east/Integral containment, then concrete pad, then grass	Integral containment/ Concrete pad
Student Union Building Generator Tank (Photograph not available – limited access)	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/850	>850	UK	East/Integral containment, containment area pavement, then loading dock area	Inside containment area, integral containment/ Pavement and curbs
College of Education Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/660	>660	UK	North and vicinity/ Integral containment, containment area pavement, then loading dock area	Containment room, integral containment/ Concrete pad

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Davis Science Building Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/500	>500	UK	West and south/Integral containment, then concrete pad, then grass and soil	Integral containment/ Concrete pad
Maintenance Complex Used Oil Container 	AST	Steel/NA	Y/NA	Double-wall	Used oil/480	>480	UK	North, then vicinity/Paved parking area	Double-wall containment/ Concrete retaining wall (to the south), paved parking area
Co-Generation Plant Oil Coolers 	AST	Steel/Steel	Y/N	Site gauge	Coolant (TURBOFLO)/ 400	>400	UK	NA; inside building/Integral containment, then co-generation floor	Integral containment/ Inside building

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Student Union Building Used Cooking Oil Containers  	AST	Steel/NA	N/NA	Site gauge (350-gallon)	Used cooking oil/ 1 @ 350	>350	2012	NA; inside building/ Impervious floor inside Student Union Building	Building provides containment/NA
					Used cooking oil/ 1 @ 300	0	2012	East/ Pavement, then loading dock	None/Paved
James E. Walker Library Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/340	>340	UK	East, then south/Integral containment, then concrete pad, then grass	Integral containment/ Concrete pad

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Corlew Hall Used Cooking Oil Container 	AST	Steel/NA	N/NA	NA	Used cooking oil/300	0	UK	East, then vicinity/Wood and sand containment, then soil, then parking lot	Wood and sand dike
Keathley University Center Used Cooking Oil Container 	AST	Steel/NA	N/NA	NA	Used cooking oil/300	0	UK	South, then west/Paved parking area and loading docks	None/Paved area

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
James Union Building Used Cooking Oil Container 	AST	Steel/NA	N/NA	NA	Used cooking oil/300	0	UK	West, southwest/ Paved parking area, then road	None/Paved area
John Bragg Mass Communication Building Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/100	>100	UK	South, southwest/ Integral containment, then concrete pad, then grass	Integral containment/ Concrete pad

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Cope Administration Building Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/ >500	>500	UK	West and south/Integral containment, then concrete pad, then grass and soil	Integral containment/ Concrete pad
James Union Building Generator Tank 	AST	Steel/Steel	Y/N	Site gauge, Integral containment locked	Diesel/100	>100	UK	South, southwest/ Integral containment, then concrete pad, then grass	Integral containment/ Concrete pad
Portable Drums and Totes									
Maintenance Complex Drum Storage 	Drums	Steel/NA	NA/NA	Stored inside building with impervious floor	Lubricating oil/ Up to 8 @ 55	>55	NA	Contained in building/ Concrete floor of Loading Area	Concrete floor, inside building at Loading Area/NA

Table 3-1
Facility Oil Storage Inventory

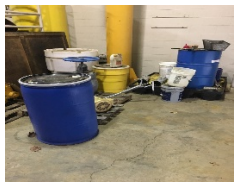
Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Maintenance Complex Bus Bay and Motor Pool Drum Storage (No Photos)	Drums	Steel/NA	NA/NA	Stored inside building with impervious floor, spill pallets (hydraulic oil)	Unknown/ 2 @ 55	>55	NA	Contained in building/ Concrete floor of Bus Bay	Concrete floor, inside building at Bus Bay/NA
Co-Generation Plant Drum Storage 	Drums	Steel/NA	NA/NA	Stored inside building with impervious floor	Coolant/ 2 @ 55	>55	NA	Contained in building/ Concrete floor of Co-Generation Plant	Concrete floor, inside building at Co-Generation Plant/NA
Equipment Reservoirs/Pits and Portable Equipment									
Maintenance Complex Mobile Fueling Truck 	Tank	Steel/Flexible Hose	N/N	Visual inspection of tank	Diesel/100	NA (Truck bed serves as partial containment)	2012	Various/Various	Staged on paved driving areas/Various

Table 3-1
Facility Oil Storage Inventory

Location Description	Container Type	Container/ Pipe Material	Double-Walled Tank/ Piping	Good Engineering Practice	Contents/ Capacity (gallons)	Secondary Containment Capacity (gallons)	Installation Year	Flow Direction/ Receiver	Containment/ Diversion Structure
Hydraulic Elevators – Various Locations	Reservoirs	Steel/Flexible Hose	N/N	Visual inspections (by third party vendor), housed inside buildings with impervious floors	Hydraulic oil/ ~37 @ 120 – 400	>400	Various	Various/Various	Impervious floors, inside buildings/NA
Oil-Water Separators									
Motor Pool Oil-Water Separator	UST	Concrete/UK	N/N	Visual level observation	Used oil and water/ 1,000	UK	UK	North and vicinity/paved parking area (for overflow only)	Underground tank/NA
Transformers									
Pad-mounted Transformers – Various Locations	Transformers	Steel/NA	N/NA	Integral containment, visual inspection of unit	Mineral oil/ 92 @ 75 – 2,500	NA (transformer cabinets provide partial containment)	Various	Various/ Integral containment to various receivers	Integral containment/ Concrete pad

Notes:
AST = Aboveground storage tank
gal = Gallons
N = No
NA = Not applicable
Y = Yes

4.0 POTENTIAL SPILL PREDICTIONS, VOLUMES, RATES, AND CONTROL

112.7(b): Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

Table 3-1 lists the oil storage structures, the type of failure to which each structure could be subject to (i.e., worst-case release), and the maximum volume that could be released if a failure occurred. The worst-case spill rate is assumed to be an instantaneous release of the entire structure (i.e., rupture for bulk ASTs, rapid leakage for drums, and leakage or explosion for transformers).

Additionally, Table 3-1 indicates a direction of flow from the storage structure to the receivers, should the secondary containment device (if present) hypothetically fail or be insufficient to handle the release. The estimated capacity of the secondary containment device is also included. The secondary containment capacity estimates are based on rough field measurements and/or information provided by facility personnel. (Note: drums and tanks stored inside the facility are exempt from listing the flow direction in the event of a spill since the oil will be contained within the facility.)

Section 15 describes secondary containment considerations.

Figure 2 in Appendix A shows the facility layout and anticipated direction of flow.

5.0 DRAINAGE PREVENTION DIVERSIONARY STRUCTURES AND CONTAINMENT

112.7(c): Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:

(1) For onshore facilities:
- (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- (ii) Curbing or drip pans;
- (iii) Sumps and collection systems;
- (iv) Culverting, gutters, or other drainage systems;
- (v) Weirs, booms, or other barriers;
- (vi) Spill diversion ponds;
- (vii) Retention ponds; or
- (viii) Sorbent materials.

Except for areas noted in Section 15.2, all areas in which oil is stored are equipped with appropriate containment and/or diversionary structures to prevent discharged oil from reaching a navigable watercourse. Table 3-1 lists the secondary containment/diversion structure for each SPCC Rules-regulated container/oil storage area at the facility.

In addition to dikes, drainage systems, or spill diversion structures, each oil loading/unloading area and oil storage structure will be within acceptable range of MTSU spill response equipment/personnel should a release occur. MTSU spill response training, procedures, equipment, and notification procedures are detailed in Sections 8 and 17.

MTSU will rely on its inspection and maintenance program, as well as spill response activities, for managing its transformers and any small diameter piping or hoses. For releases from ASTs, portable equipment, and drums, the flow of oil will be retained within double-walls/integral containment or likely pool near the container. In the event of a large spill, ditches conveying storm water to Sinking Creek can be diked in order to minimize impact to offsite property.

It is anticipated that all spilled materials would remain on MTSU property. If a large rain event occurred during or just after a catastrophic rupture, it is possible that product could be conveyed to surface waters, due to the close proximity of the facility to Sinking Creek. It is recommended that secondary containment options be considered for all ASTs that are not contained within integral containment, double-walled construction, or containment dikes, including the 300-gallon Student Union Building used cooking oil container, the 300-gallon Corlew Hall used cooking oil container, the 300-gallon Keathley University Center used cooking oil container, and the 300-gallon James Union Building used cooking oil container.

Consideration of Industry Standards

As a reference, the industry standards for "Impounding Around Tanks by Open Diking" and "Secondary Containment Tanks" are outlined in this section. These standards are generally incorporated into this SPCC Plan.

Industry Standard Consideration

Impounding Around Tanks by Open Diking (National Fire Protection Association [NFPA] 30-2018, Section 22.11.2)

(1) A slope of not less than 1 percent away from the tank shall be provided for at least 50 feet or to the dike base, whichever is less.
(2) The volumetric capacity of the diked area shall not be less than the greatest amount of liquid that can be released from the largest tank within the diked area, assuming a full tank.
(3) The outside base of the dike at ground level shall be no closer than 10 feet to any property line that is or can be built upon.
(4) Walls of the diked area shall be of earth, steel, concrete, or solid masonry designed to be liquid-tight and to withstand a full hydrostatic head.
(5) Where the average interior height of the walls of the diked area exceeds 6 feet, provisions shall be made for normal access; necessary emergency access to tanks, valves, and other equipment; and egress from the diked enclosure.
(6) Each diked area containing two or more tanks shall be subdivided, preferably by drainage channels or at least by intermediate dikes to prevent spills from endangering adjacent tanks within the diked area.
(7) Draining water from diked areas shall be controlled to prevent liquids from entering natural water resources, public sewers, or public drains.
(8) Storage of combustible materials, empty drums, full drums, or barrels shall not be permitted within the diked area.

Industry Standard Consideration

Secondary Containment Tanks (NFPA 30-2018, Section 22.11.4)

(1) Tank capacity should not exceed 50,000 gallons.
(2) Piping connections to the tank shall be made above the maximum liquid level.
(3) Means shall be provided to prevent the release of liquid from the tank by siphon flow.
(4) Means shall be provided for determining the liquid level of tank. Means shall be accessible to the delivery operator.
(5) Means shall be provided to prevent overfilling by sounding an alarm when the liquid level in tank reaches 90% capacity and automatically stopping delivery in the tank when liquid level reaches 95% capacity.
(6) Spacing between adjacent tanks shall not be less than 3 feet.
(7) Tank shall be capable of resisting the damage from the impact of a motor vehicle or collision barriers shall be provided.
(8) Where secondary containment is enclosed, it shall have appropriate emergency venting in accordance with Section 22.7.
(9) Secondary containment shall be designed to withstand the hydrostatic head resulting from a leak from the primary tank of the maximum amount of liquid that can be stored in the primary tank.
(10) Means shall be provided to establish the integrity of the secondary containment in accordance with Chapter 21 of NFPA 30-2018.

6.0 IMPRACTICALITY OF SECONDARY CONTAINMENT, 40 CFR 112.7(D)

112.7(d): If you determine that the installation of any of the structures or pieces of equipment listed in 40 CFR 112.7 (c) and (h)(1), and 112.8(c)(2), 112.8(c)(11), to prevent a discharge as described in 112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under 112.20, provide in your Plan the following:

(1) An oil spill contingency plan following the provisions of 40 CFR 109.
(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

All areas of the facility where oil is handled or stored, except the cited deficiencies noted in other sections of this SPCC Plan, are equipped with appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching navigable water, as required by 40 CFR 112.7(c). As detailed in Section 1.3, it is not required that facilities demonstrate impracticality for containment of spills from OFOE, including transformers. Instead, the facility must be able to respond to a release of oil from this equipment with spill response equipment and have an adequate operation, maintenance, and inspection program in place to prevent releases. Spill response and absorbent materials will be used as the primary means of containment in these cases.

7.0 INSPECTION/RECORD KEEPING

112.7(e): Conduct inspections and tests required by 40 CFR 112 in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

Although inspections may be performed more often, periodic inspections must be performed on all oil storage containers at the minimum frequencies indicated in Tables 7-1 and 7-2 to comply with industry standards. The Plan Administrator or designee is responsible for conducting the inspections and completing and signing the appropriate forms. Section 15.6 provides further details regarding integrity assessments of the containers, which will be conducted according to industry standards for the facility's containers. Example inspection forms are in Appendix B to assist MTSU with the inspection requirements. Records of required inspections must be retained for at least 3 years at the facility.

Table 7-1
Routine[1] Inspection Schedule

Type of Inspection	Required Frequency	Responsible Person	Example Inspection Form[2]	Record Retention
Shop-Fabricated Aboveground Storage Tanks[3]				
External Visual (Routine)	Monthly and annually Per STI SP001-06	Plan Administrator or Designee	Appendix B	3 years
Aboveground Piping				
External Visual (Routine)	Monthly and annually	Plan Administrator or Designee	Appendix B	3 years
Portable/Mobile Containers (e.g., Drums, Totes)				
External Visual (Routine)	Monthly Per STI SP001-06	Plan Administrator or Designee	Appendix B	3 years
Oil-Filled Operational Equipment (Including Transformers)				
Hydraulic Oil Elevators	Every 6 Months	KONE Elevators		3 years
Transformers	Every 6 Months	Murfreesboro Electric Company		3 years
External Visual (Routine)	Annually	Plan Administrator or Designee	Appendix B	3 years
Spill Kits				
Check inventory to ensure adequate supply	Monthly	Plan Administrator or Designee	Appendix B	NA

Notes:

1 Routine inspections can be performed by qualified MTSU/contractor personnel.

2 Facility-generated forms can be used in lieu of several of the example inspection forms listed above as long as they are complete.

3 Shop-fabricated tanks are not built to the American Petroleum Institute 653 industry standards and fall under the Steel Tank Institute Standard for the Inspection of Aboveground Storage Tanks (SP001-06) inspection requirements. Shop-fabricated tanks that are considered consumptive-use tanks (i.e., end-point tanks typically).

NA = Not applicable
SP001-06 = Standard for the Inspection of Aboveground Storage Tanks, Sixth Edition
STI = Steel Tank Institute

Table 7-2
Non-Routine[1] Inspection and Integrity Testing Schedule

Type of Inspection	Required Frequency	Responsible Person	Report	Record Retention
Steel Shop-Fabricated Tanks Over 5,000 gallons[2,3]				
Formal External Inspection including shell thickness measurements (tanks 5,001 to 50,000 gallons only)	Every 20 years IAW STI SP001-06 (result of the inspection may result in repairs needed based on the suitability for continued service evaluation per Section 10); All repairs should be in compliance with SP031	Certified STI Inspector	Certified documentation	Indefinite (or 5 years after lifetime of equipment)
Follow-up External Inspection (for tanks repaired as a result of the 20-year formal external inspection)	Every 5 years IAW STI SP001-06, Section 10.2.4	Certified STI Inspector	Certified documentation	Indefinite (or 5 years after lifetime of equipment)
Repair or remove from service following tank damage or leak IAW STI SP001-06, Section 10.4; All repairs should be in compliance with SP031	Immediately	Plan Administrator or designee	Certified documentation	Indefinite (or 5 years after lifetime of equipment)
Steel Shop-Fabricated Containers, 5,000 gallons or less, ASTs, and Portable/Mobile Containers				
Integrity Testing (Non-Routine)	None, as long as monthly and annual inspections performed and documented as required by STI SP001-06	NA	NA	NA

Notes:

[1] Non-routine inspections are performed by qualified/certified personnel in accordance with regulatory requirements and/or industry accepted standards.

[2] Required by industry standards, which the SPCC regulations require the engineer to consider.

[3] Steel and shop-fabricated tanks are not built to the field-constructed tank industry standards and fall under STI SP001-06 (steel) inspection requirements.

ASTs = Aboveground storage tanks
NA = Not applicable
SP001-06 = Standard for the Inspection of Aboveground Storage Tanks, Sixth Edition
STI = Steel Tank Institute
SPCC = Spill, Prevention, Control, and Countermeasure

Note that all but three of the ASTs (e.g., the two 20,000-gallon diesel ASTs located at the Co-Generation Plant), drums, and mobile/portable oil storage containers are classified as Category 1 systems with capacities less than or equal to 5,000 gallons. In accordance with Table 5.5 of Steel Tank Institute (STI) Standard for the Inspection of Aboveground Storage Tanks (SP001-06), periodic (monthly and annual) visual inspections by authorized Plant personnel are the only type of integrity testing required for Category 1 systems of this size. No periodic inspections by a STI inspector are required for these containers unless the monthly and annual inspections are not adequately documented.

The two 20,000-gallon diesel ASTs located at the Co-Generation Plant are also designated as Category 1. Since the capacity of the tanks lies within the range of 5,001 to 30,000 gallons, in addition to the periodic visual inspections described, this tank is also required to have formal external inspection by a Certified Inspector once every 20 years. The latest STI inspection for the Co-Generation Plant ASTs was conducted in 1998.

The 300-gallon Corlew Hall used cooking oil container is classified as a Category 2 tank since it does not have secondary containment, and it is in direct contact with the ground. In addition to the routine inspections noted above, a formal inspection by a certified inspector is required every 10 years.

7.1 Routine Visual Inspections

Table 7-1 addresses required routine visual inspections. The inspections listed in this table can be performed by qualified MTSU personnel or contractors. The Plan Administrator or designee is required to regularly inspect all containers. These inspections should include observing oil tanks, drum storage/staging areas (Maintenance Complex), loading/unloading and transfer areas, and the OWS to identify evidence of leaks, spills, and signs of compromised integrity (e.g., plastic or metal fatigue, rusting, bulging). All records must be kept on file for at least 3 years. If a deficiency is noted, it must be either described on the appropriate line or at the bottom of the inspection form reserved for remarks. Corrective action must then be taken to repair or replace a deficient container.

7.2 Non-Routine Inspections and Integrity Testing

Generally, Table 7-2 addresses minimum required integrity testing and non-routine inspections that must be performed by qualified inspectors (e.g., authorized American Petroleum Institute [API]- or STI-certified inspector). The integrity testing and inspections listed in this table must be performed in accordance with acceptable industry standards and/or regulatory requirements.

7.3 Inspection Authority Proof

Each routine inspection form is signed and dated by an appropriate supervisor or inspector as noted on the example inspection forms in Appendix B. When applicable, each non-routine inspection report is signed and certified by the authorized inspector (typically an authorized API- or STI-certified inspector).

7.4 Record Maintenance

As indicated by Tables 7-1 and 7-2, records of all routine inspections and integrity tests shall be maintained for a minimum of 3 years. However, records of non-routine inspections and integrity tests shall be maintained for 5 years after the operational life of the storage tank system or lifetime of the equipment. Inspection records are located in the environmental files.

8.0 PERSONNEL TRAINING AND SPILL PREVENTION PROCEDURES

8.1 Personnel Instructions

112.7(f)(1): At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.

Spill Prevention, Control, and Countermeasure training topics for specific management/oil handlers include:

- Applicable pollution control laws, rules, and regulations
- Operation and maintenance of equipment to prevent oil discharges
- Purpose and overview of Spill Prevention, Control, and Countermeasure Plan
- Chemical and physical properties of materials transferred
- Potential spill areas and drainage routes
- Emergency response procedures
- Spill cleanup equipment locations and the use of the equipment
- Recent spill events, subsequent response and corrective action

The Plan Administrator and the EHS Officer provide basic prevention, awareness, and response spill training to new employees involved with oil equipment operation, maintenance, or oversight at the Maintenance Complex. As of the date of this Plan, only the Plan Administrator and the EHS Officer have received additional formal training. Annual refresher training is required for all personnel involved with oil equipment operation; however, as of the date of this Plan, annual refresher training was approximately 6 months past due. Only personnel working out of the Maintenance Complex have received awareness training — no other employees on campus have attended training. Facility personnel involved in petroleum product handling are required to attend sessions on safe handling techniques, personal protection, and spill response.

Intermediate training sessions are conducted for appropriate personnel when a process or procedure changes and for new employees who are responsible for implementing any portion of the SPCC Plan. Specific on-the-job training is provided as required by individual position. Annual refresher training and exercises are completed as well. Information may be conveyed via PowerPoint presentation, hand-outs, videos, or a combination therein.

Specific individuals designated as SPCC inspection personnel are also trained on what inspection procedures to use, the frequency of inspections, record keeping requirements, and procedures for reporting and correcting detected problems.

Example employee training record forms are in Appendix C.

8.2 Designated Person Accountable for Spill Prevention

112.7(f)(2): Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

The Plan Administrator is the designated person accountable for spill prevention at the MTSU facility. The EHS Officer is the designated person accountable for spill response/clean-up efforts. The Plan Administrator and the EHS Officer coordinate to ensure that spill prevention techniques are adequate.

8.3 Spill Prevention Briefings

112.7(f)(3): Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

MTSU schedules and conducts safety meetings that include periodic review of spill prevention. MTSU also conducts annual training that includes the following discussions: (1) recent spill events, (2) causes of the spills, and (3) corrective action to prevent recurrence of similar spills. If the facility has not experienced a recent spill, spill scenarios will be presented and discussed in order to detail specific actions to be taken under a given scenario and how actions may differ between scenarios. Personnel responsible for the oil-storage areas/inspections and spill response personnel must be included in the SPCC briefings.

9.0 SITE SECURITY

112.7(g): Describe in your Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.

9.1 Fencing and Gates

The MTSU facility is partially fenced. Many of the drums and OFOE are secured within buildings with restricted access. Campus security staff is present 24 hours per day, 7 days per week.

9.2 Flow and Drain Valves Secured

Access to the ASTs by unauthorized personnel is prevented by campus security. Tank drains for all ASTs remain closed when not in active use. Drums are secured with bungs, kept on spill pallets, and/or are housed inside buildings (which are secured when maintenance personnel are not present). The generators remain locked when not in use, securing valves/controls within the integral containment. Transformers are kept pad-locked. The flow and drain valves associated with the 20,000-gallon Co-Generation Plant diesel tanks are chained and locked to prevent tampering.

9.3 Starter Controls Secured

The starter controls for the manual pumping of product into/out of outside ASTs are secured by campus security. The starter controls for the USTs (i.e., the fueling pumps at the Maintenance Complex) are accessible only to authorized personnel via a key-card security system. The generators stay locked when not in use, preventing accidental start-up. Transformers are also kept locked at all times, unless maintenance is occurring.

9.4 Pipeline Loading/Unloading Connections Secured

All piping is in service; however, when facility piping is taken out of service or placed in standby for an extended period of time, the owner/operator will comply with this requirement.

9.5 Lighting Adequate to Detect and Deter Spills

Security lighting is provided outside the maintenance building at the old maintenance area where the diesel and gasoline ASTs are located. Lighting is also provided at the restaurant where the used cooking oil AST is located. The lighting is adequate to detect a discharge from oil containers, and is such that a spill may be observed during hours of darkness, both by operating personnel and non-operating personnel (general public, local police, etc.), and spills are deterred from occurring through acts of vandalism.

With the exception of Item 2 below, (because incandescent lighting is being phased out), lighting at MTSU generally conforms to the industry standard (API 2610, Section 13.2.2), which recommends the following:

Industry Standard Consideration

(1)	Use high-intensity discharge lamps, such as mercury vapor or high-pressure sodium lighting. High-pressure sodium lighting is recommended because it provides high lumen output per watt. Application of either of these two types of lamps at low temperatures should be referred to the manufacturer for special consideration.
(2)	Intersperse incandescent lighting fixtures in areas that require immediate return of lighting after power dips or outages. The use of instant re-strike lighting eliminates the need for interspersed incandescent lighting.
(3)	Consider photoelectric cell control where automatic switching of yard and rack lighting is required.
(4)	Lighting fixtures installed in Class I, Division 1 and 2, and Group D locations should conform to the requirements of NFPA 30 and 70, and be maintained in good condition.

10.0 LOADING/UNLOADING OPERATIONS

112.7(a)(3)(ii): Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.)

Loading, unloading, and intra-facility transfer of oil products occur at MTSU. New diesel is delivered to the facility by tanker truck on an as-needed basis. To fill the tank, the tanker truck is parked and chocked. Before filling the tank, the truck should be closely inspected by the delivery driver for discharges at the lowermost drain and all outlets of the tanker. After the inspection, the tanker's discharge hose is attached to the inlet valve of the tank. This connection does not occur within a diked area; therefore, a bucket or other absorbent material should be placed under the connection to collect and contain any drips or leaks. The valve is normally in a closed and locked position. The Plan Administrator or designated personnel must be notified and present to unlock and supervise the loading procedure. All transfers at MTSU are attended by qualified personnel.

Used oil and used cooking oil/grease are accumulated at the facility. Used oil is stored in the 55-gallon drums and the 480-gallon Maintenance Complex used oil container, while used cooking oil/grease is stored in one of the five used cooking oil containers (ranging in capacities from 300 to 350 gallons). In addition, oil is also stored in the Motor Pool OWS. The tanks are periodically pumped out by a third-party contractor for disposal as needed. Other virgin oil products (e.g., hydraulic oil) are delivered in 55-gallon drums by box trailer.

The facility does not have any "loading/unloading racks" as defined by the U.S. EPA standard and is not subject to the requirements of 40 CFR 112.7(c) and 40 CFR 112.8(b). Rule 40 CFR 112(h) does not apply to transfer of fuel to shop-fabricated, end-use containers such as small ASTs, nor does it apply to fuel transfer into non-AST systems by commercial fuel transporters. Oil throughput associated with these systems and operations is considered low. For these operations, spill risk potential is managed in accordance with standard operating procedures described throughout this SPCC Plan.

Industry Standard Consideration

All oil transporters are required to meet the minimum requirements and regulations established by the U.S. Department of Transportation. The basis for these regulations is listed in this section as an industry standard consideration.

Industry Standard Consideration

All transporters of oil to and from this facility should meet the minimum requirements and regulations established by the U.S. Department of Transportation (USDOT). Although not all of the oils transferred at the facility are hazardous substances, it is recommended that the USDOT rules for transferring hazardous materials be followed as a best management practice. Loading/unloading procedures of hazardous materials are detailed in 49 CFR 172 (tank truck transfer). Key aspects are excerpted below for consideration:

Tank Truck Transfer:

(1) A qualified person must be in attendance at all times when a tank truck is loaded/unloaded.
(2) The attendant must be awake, have an unobstructed view of the tank truck, and be within 25 feet of the tank truck throughout the event.
(3) The attendant (or surveillance attendant) must be aware of the nature of the hazardous materials to be loaded/unloaded, trained on the procedures to be followed in emergencies, authorized to move the tank truck, and have a means to move the cargo tank.
(4) Manholes and valves must be closed and secured during transport.

In addition, current processes for loading/unloading at MTSU need to meet the following National Fire Protection Association (NFPA) requirements.

Industry Standard Consideration

An industry standard (Sections 28.4, 28.9, 28.10, and 28.11 of NFPA 30-2018) outlines the following loading/unloading operational guidelines that are applicable:

(1) Tank vehicle loading/unloading facilities should be separated from ASTs, buildings, and nearest property lines by a distance of 25 feet for Class I liquids and Class II and III liquids handled at temperatures at or above their flash points and 15 feet for Class II and III liquids handled at temperatures below their flash points.
(2) Loading/unloading facilities shall be provided with drainage systems or other means to contain spills.
(3) Before loading tank vehicles through open domes, a bonding connection shall be made to the vehicle or tank before dome covers are raised and shall remain in place until filling is completed and all dome covers have been closed or secured, unless one of the conditions of NFPA 30 Section 28.3.1 exists.
(4) When transferring Class I liquids or Class II or Class III liquids at temperatures at or above their flash points, engines of tank vehicles or motors of auxiliary or portable pumps shall be shut down during the making and breaking of hose connections.
(5) Equipment used for the transfer of Class I liquids between tanks shall not be used for Class II or Class III liquids, unless one of the conditions listed in NFPA 30 Section 28.10.1 exists.
(6) Liquids shall be loaded only into tanks whose material of construction is compatible with the chemical characteristics of the liquid (refer to Section 28.11 of NFPA 30-2018 for detailed loading/unloading guidelines).
(7) To prevent hazards due to a change in flash point of liquids, no tank car (rail) or tank vehicle that has previously contained a Class I liquid shall be loaded with a Class II or Class III liquid unless proper precautions are taken.

10.1 Adequate Secondary Containment for Loading and Unloading Racks

112.7(h)(1): Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle spills, use a quick drainage system for tank car or tank truck loading and unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

MTSU loading/unloading operations do not satisfy the intended U.S. EPA definition of "loading/unloading rack"; therefore, this section is *not applicable*. However, as also discussed in Section 15.2, means must be provided to prevent a catastrophic spill from the largest compartment of a commercial tank truck from entering the storm water drainage system. The facility is required to have "best management practices" in place for this process.

10.2 Warning or Barrier System for Vehicles

112.7(h)(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

MTSU loading/unloading operations do not satisfy the intended U.S. EPA definition of "loading/unloading rack;" therefore, this section *is not applicable*. Diesel fuel and gasoline (delivered to USTs only) are delivered as needed by commercial tanker trucks. Used oil is either pumped by a third-party contractor from the Maintenance Complex used oil container for proper offsite disposal, or pick-up by the third-party vendor in 55-gallon drums. Used cooking oil and grease is pumped by a third-party contractor and properly disposed offsite. The contractor is responsible for providing wheel chocks to prevent vehicle movement prior to complete disconnection of transfer lines. In addition, bollards have been installed at the university fueling station to prevent maintenance vehicles from striking the pumps. The fueling station is also equipped with an emergency shut-off button to stop the flow of fuel in the event of spill or fire. Site personnel oversee all used oil transfers to verify that the contractor is following all required procedures.

10.3 Vehicles Examined for Lowermost Drainage Outlets Before Leaving

112.7(h)(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

MTSU loading/unloading area does not satisfy the intended U.S. EPA definition of "loading/unloading rack"; therefore, this section is *not applicable*. However, it is general practice for the commercial tank truck driver to closely inspect the delivery truck for discharges at the lowermost drain and all outlets of the tanker prior to departure.

11.0 BRITTLE FRACTURE OR OTHER CATASTROPHE OF FIELD-CONSTRUCTED TANKS

112.7(i): If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

There are no field-constructed tanks at the facility; therefore, this requirement is *not applicable*.

12.0 CONFORMANCE WITH OTHER APPLICABLE REQUIREMENTS

112.7(j): In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

12.1 State of Tennessee Requirements

The State of Tennessee does not have any other requirements for spill prevention, control, and countermeasures. However, the State does have additional reporting requirements applicable to facilities with underground storage tanks and/or ASTs.

In Tennessee, spills that cannot be safely controlled or cleaned by facility personnel and/or that affect or threaten to affect navigable waters or adjoining shorelines must be reported to Tennessee Emergency Management Agency (TEMA) at 800-262-3300. Based on the information provided regarding the spill, TEMA will make the appropriate notifications to other agencies. However, MTSU is still legally responsible for making its own notifications. TEMA's phone number, along with that of other federal and state agencies, is in Table 17-2.

In addition, Tennessee Rules 0400-18-01-.05(4) and 68-215-127 require spills of 25 gallons or more to the environment to be reported to the TDEC.[1] See Section 17 for more information.

12.2 Industry Standards

Discussions regarding conformance with the requirements of API, NFPA, STI standards, and other industry standards are integrated where applicable throughout this SPCC Plan. Additionally, NFPA 30 Flammable and Combustible Liquids Code specifies in Section 21.7.2.1, Identification for Emergency Responders, that a sign or marking that meets the requirements of NFPA 704 or another approved system be applied to storage tanks containing liquids. Section 21.7.2.2 of NFPA 30-2018 requires that unsupervised, isolated ASTs shall be secured and marked to identify the fire hazards of the tank and the tank's contents to the public. Where necessary to protect the tank from tampering or trespassing, the area where the tank is located shall be secured. EnSafe recommends that, if not already marked, MTSU mark each container accurately.

[1] A spill to the environment is defined in Section 17.3.2 of this Plan.

13.0 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT

112.7(k): The owner or operator of a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this sub-section may choose to implement for this qualified oil-filled operational equipment the alternate requirements as described in paragraph (k)(2) of this sub-section in lieu of general secondary containment required in paragraph (c) of this section

1) Qualification Criteria-Reportable Discharge History: The owner or operator of a facility that has had no single discharge as described in §112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war or terrorism); and
2) Alternative Requirements to General Secondary Containment. If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:
   (i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and
   (ii) Unless you have submitted a response plan under §112.20, provide in your Plan the following:
      a) An oil spill contingency plan following the provisions of part 109 of this chapter.
      b) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

The primary OFOE onsite at MTSU includes hydraulic oil elevators and electrical transformers. The elevator reservoirs are all contained inside buildings which provides secondary containment.

Electrical Transformers

MTSU oil-filled electrical equipment does not have secondary containment due to electrical safety issues and design constraints. In lieu of general secondary containment, MTSU must establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and discharge; as well as, have an oil spill contingency plan, and a written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful. In addition, spill response and absorbent materials are located throughout the facility. Any leaks identified are reported and corrected promptly.

Each of the pad-mounted transformers at MTSU are managed by the university. The 92 pad-mounted transformers, which typically contain between 75 and 2,500 gallons of dielectric oil, are referenced in Table 3-1. Pole-mounted transformers typically contain less than 55 gallons of dielectric oil and therefore are not addressed in this SPCC Plan.

The Facility Layout Map (Figure 2) shows the locations and contents of the 92 pad-mounted transformers. MTSU inspects each of the oil-filled, pad-mounted transformers that they own. According to MTSU personnel, the 92 pad-mounted transformers at MTSU are also visually inspected approximately every 6 months. Refer to the inspection forms in Appendix B for an example inspection log.

14.0 DRAINAGE CONTROL

14.1 Drainage from Diked Storage Areas

112.8(b)(1): Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

MTSU has a diked storage area surrounding the two 20,000-gallon diesel tanks at the Co-Generation Plant. The two 20,000-gallon tanks are single-walled; the diked area provides secondary containment protection in the event of a catastrophic release. The diked area, constructed of concrete (impermeable floor), has an approximate capacity of 25,400 gallons. Rainwater that accumulates in the diked area is removed via a pump, which conveys it via a flexible hose to an underground storm water conveyance. A second, small, diked area surrounds the 300-gallon Corlew Hall used cooking oil container. This dike is constructed of wood and iron, and filled partially with sand. The approximate capacity of the diked area is 560 gallons; however, the containment does not appear to be water-tight. The area is designed to absorb used cooking oil spills and prevent migration until appropriate clean-up can be performed. The Corlew Hall used cooking oil container containment has no associated valves, pumps, or drains.

14.2 Valves Used on Diked Storage Areas

112.8(b)(2): Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an onsite wastewater treatment plant, you must inspect and may drain uncontaminated retained storm water, as provided in 112.8(c)(3)(ii), (iii), and (iv).

No diked areas at MTSU have valves associated with drainage; therefore, this requirement is not applicable. The diked containment surrounding the tanks at the Co-Generation Plant does not have any valves. Collected rainwater is removed via a pump. The dike around the used cooking oil tank at Corlew Hall has no associated valves.

14.3 Facility Drainage Systems from Undiked Areas

112.8(b)(3): Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

Storm water drainage from the facility is generally conveyed along the roads to storm drains, ditches, swales, and other miscellaneous storm water conveyance features. The drainage flows generally to the west, where it enters into the storm water features maintained by the City of Murfreesboro. The City of Murfreesboro and MTSU are co-permitting for the required MS4 permit. The MTSU area of storm water operation spans generally from Middle Tennessee Boulevard (to the west) to

Greenland Drive (to the north) to Rutherford Boulevard (to the east) and finally to East Main Street (to the south). A storm water retention pond, located in the south portion of campus near Alumni Drive, receives storm water from a catch basin near the library. In addition, MTSU uses storm water treatment systems near the College of Education and the Student Union Building to treat runoff from undiked areas on the east portion of campus.

Spill kits containing spill control equipment (absorbent pads, granules, booms (socks), etc.) will be located near the fuel storage tanks and readily available in the event of a spill or leak. If warranted, an emergency response contractor will be notified for large spills.

14.4 Final Discharge of Drainage

112.8(b)(4): If facility drainage is not engineered as in 112.8(b)(3), equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

The final discharge of storm water from the facility occurs via several ditches and underground storm water conveyances west and northwestern portions of the property. Spills at MTSU are not anticipated to be released off-property. Any release should be contained within secondary/integral containment or on soil in the immediate vicinity, prior to leaving the campus. Given the close proximity of the facility to the Sinking Creek, it is imperative that the facility remediate any spills as soon as possible to prevent possible flushing of contaminants.

If a spill should occur on the property that could not be contained onsite with spill materials including absorbents, pads, and socks, EHS Officer would contact the spill consultant. The spill consultant would identify the appropriate actions to clean the spill, including the use of an emergency response spill contractor. Facility storm water drainage and drainage from undiked areas is discussed in Sections 2.4 and 14.3, respectively.

14.5 Facility Drainage Systems and Equipment

112.8(b)(5): Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

The facility employs four storm water treatment systems: one centrifugal treatment system at the College of Education and three Gen Hill treatment systems at the Student Union Building. Pump transfers are not used in any of these systems, with the exception of POLs pump-out during equipment maintenance. These systems are maintained by a third-party vendor. In addition, the facility uses a gravity OWS at the Motor Pool to capture POLs. No pump transfer is needed for this system, with the exception of third-party pump-out of accumulated POLs.

15.0 BULK STORAGE CONTAINERS/SECONDARY CONTAINMENT

15.1 Container Compatibility with its Contents

112.8(c)(1): You must not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

Oil storage containers used onsite are made of a material (i.e., steel or plastic) that is compatible with the storage containers' contents (e.g., oil), and therefore, the tanks conform to the relevant industry standard (NFPA 30-2018 Flammable and Combustible Liquids Code). Reference Table 3-1 for container content/capacity, container material, and good engineering (e.g., liquid level gauges). All of these oil storage containers are designed to operate under ambient atmospheric conditions for pressure and temperature.

15.2 Diked Area Construction and Containment Volume for Storage Containers

112.8(c)(2): You must construct all bulk storage container installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

Containment for a majority of the oil containers on campus is provided via double-walled tanks, integral containment, and storing materials inside a building with an impervious floor. The two 20,000-gallon diesel tanks at the Co-Generation Plant are single-walled with a concrete diked area to provide secondary containment. The Corlew Hall used cooking oil container has a wood and sand diked area that acts as partial containment; however, the containment is not liquid-tight and does not function as a true diked secondary containment area. The 300-gallon Student Union Building used cooking oil container, the 300-gallon Keathley University Center used cooking oil container, and the 300-gallon James Union Building used cooking oil container do not have secondary containment.

Diked oil-containing structures exposed to direct precipitation are required to have secondary containment with capacity for the entire tank, plus sufficient freeboard to allow for precipitation. The required freeboard depth to use for precipitation calculations is not defined in the SPCC regulation. Although the U.S. EPA indicates that a 25-year/24-hour storm event standard is appropriate for most facilities and protective of the environment, it was not made a rule standard because of the difficulty and expense for some facilities.

A 25-year/24-hour storm event for the facility area in Murfreesboro, Tennessee, is approximately 6.0 inches of rain. This information is found in the "Precipitation Frequency Data Server (National Oceanic and Atmospheric Administration, National Weather Service) and online at https://hdsc.nws.noaa.gov/hdsc/pfds/index.html. Enter location: 35°50'55.00" N 86°21'53.57" W.

The general industry standard for secondary containment is 110% of tank capacity to provide for 10% freeboard to contain precipitation. This latter standard (i.e., the 110% rule) is applied in this SPCC Plan; however, the 6.0-inch rainfall is also considered.

15.2.1 Freeboard Determination

The only tanks exposed to precipitation and currently associated with diked containment are the two 20,000-gallon Co-Generation Plant diesel tanks. The tanks are single-walled, and the existing secondary containment for both tanks consists of a concrete dike structure measuring approximately 25 by 68 by 2 feet. Therefore, based on the 110% rule, the secondary containment should be of sufficient capacity to hold 22,000 gallons (oil plus rainwater). Based on the 25-year/24-hour storm event, the secondary containment should be of sufficient capacity to hold 26,400 gallons (maximum diesel contained in one of the tanks plus rainwater).

25 by 68 by 2 feet = 3,400 cubic feet = 25,400 gallons approximate actual secondary containment capacity

Freeboard allowance = 6.0 inches (25-year/24-hour storm event) = 25 feet x 68 feet x 0.5 feet = 6,400 gallons

Using the current estimations, it appears that the containment is capable of containing approximately 1,000 gallons too few for adequate freeboard when considering the 25-year/24-hour storm event. Although the diked secondary containment does not have enough freeboard for the 25-year/24-hr storm event, it does meet the 110% rule. Therefore, there is no regulatory deficiency. It is recommended, however, that the containment dike height be increased by approximately one inch to fully contain a 25-year/24-hour storm event.

15.2.2 Adequacy of Secondary Containment

Most of the oil storage containers at the facility have adequate secondary containment. Secondary containment is not provided for the 300-gallon Student Union Building used cooking oil container, the 300-gallon Keathley University Center used cooking oil container, or the 300-gallon James Union Building used cooking oil container. Partial containment is provided for the 300-gallon

Corlew Hall used cooking oil container. It is strongly recommended that the facility designs/implements adequate secondary containment for all four tanks. Drums are stored indoors at the Maintenance Complex or on spill pallets on impervious surfaces. The emergency generator fuel tanks and the transformers have integral containment. The 480-gallon Maintenance Complex used oil container has double-walled construction. The truck bed of the mobile fueling truck serves as partial containment for the 100-gallon diesel tank. Other ASTs and oil-filled equipment are located within buildings, which serve as secondary containment.

The OWS and storm water treatment systems are underground; thus, the requirement for secondary containment is not applicable.

Refer to the facility oil storage inventory in Table 3-1 for secondary containment details. The Executive Summary on page vii provides a summary of regulatory deficiencies related to secondary containment.

15.2.3 Impermeability of Secondary Containment

Secondary containment measures provided for oil containers are sufficiently impermeable except for the dike structure around the Corlew Hall used cooking oil container. Additional and/or alternate secondary containment is recommended for this container.

15.3 Diked Area, Inspection, and Drainage of Rainwater

112.8(c)(3): You must not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.
(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).
(iii) Open the bypass valve and reseal it following drainage under responsible supervision.
(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with 40 CFR 122.41(j)(2) and 40 CFR 122.41(m)(3).

The diked area surrounding the two 20,000-gallon ASTs at the Co-Generation Plant does not drain into a storm drain, open watercourse, lake, or pond without facility personnel first inspecting the rainwater to determine if a sheen/free product is present. If the rainwater is visually found to be uncontaminated by POLs, the pump is activated and the rainwater is pumped to an underground storm water conveyance.

15.4 Corrosion Protection and Leak Testing of Buried Metallic Storage Tanks

112.8(c)(4): You must protect any completely buried metallic storage tank installed on or after January 10, 1974, from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

There are two completely buried metallic tanks subject to 40 CFR 112.8(c)(4): the 10,000-gallon diesel UST and the 10,000-gallon gasoline UST associated with the campus fueling station. The OWS at the Maintenance Complex is completely buried; however, it is constructed of concrete. The facility performs regular corrosion protection and leak testing as required. Testing and inspection records for the USTs are maintained in the environmental site files.

15.5 Corrosion Protection of Partially Buried Metallic Tanks

112.8(c)(5): You must not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

There are no partially buried metallic tanks at the facility (the USTs at the campus fueling station are completely buried); therefore, this section is *not applicable*.

15.6 Aboveground Tank Periodic Integrity Assessment

112.8(c)(6): You must test or inspect each aboveground container for integrity on a regular schedule, and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, and the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

40 CFR 112.8(c)(6) directs the engineer to recommend integrity testing based on industry standards. Industry standards set integrity testing requirements (based upon AST type, size, installation, contents, corrosion rate, and previous inspection history) and determine a schedule of applicable inspections for each AST. For the tanks at MTSU, the STI Standard for the Inspection of Aboveground Storage Tanks (STI SP001-06) industry standard applies. The standard applies to steel tanks and portable containers. The aboveground storage containers at MTSU are constructed of steel.

All oil containers at the facility are subject to monthly visual inspections for external integrity, adequate secondary containment, pipe and pipe connection integrity, and other related equipment. Completion of the inspections is tracked and records maintained by the Plan Administrator. Integrity testing will be conducted as presented in Table 7-2.

All inspections conducted are required to be documented and records maintained onsite for 3 years. Formal inspections by an STI inspector should be maintained 5 years past the life of the tank.

Example inspection forms in Appendix B provide checklists that can be used during a typical visual inspection of a shop-fabricated tank. The fundamental components of the inspection are as follows:

- Structural integrity
- Attached piping
- Secondary containment
- Security

15.6.1 Shop-Fabricated Containers up to 5,000 gallons

Oil storage containers at the facility that are not in direct contact with the ground are classified as STI SP001-06 "Category 1" systems that are less than 5,000 gallons. In accordance with Table 5.5 of STI SP001-06, periodic (monthly and annual) visual inspections by the facility are the only type of integrity testing required for these containers. No periodic inspections by a STI inspector are required for these containers unless the monthly and annual inspections are not adequately documented.

The oil storage containers at the facility that are in direct contact with the ground are classified as STI SP001-06 "Category 2" systems. In addition to periodic (monthly and annual) visual inspections by the facility, Category 2 tanks require non-routine external inspections by certified inspectors and leak testing at least every 10 years.

15.6.2 Shop-Fabricated Steel ASTs 5,001 to 30,000 gallons

The two 20,000-gallon Co-Generation Plant diesel tanks are the only shop-fabricated tanks that fall into this size category and are classified as Category 1 system that is greater than 5,000 gallons. In accordance with Table 5.5 of STI SP001-06, a formal external inspection by a certified STI inspector is required every 20 years for these tanks. In addition, periodic (monthly and annual) visual inspections are required for these tanks. Section 10.3.4 of STI SP001-06 stipulates that if the formal external inspection of a tank in this category determines that structural repairs are needed, a follow-up external inspection every 5 years will be required.

Additional Inspections Required to Follow-Up

Section 10.3.1 of STI SP001-06 stipulates that if any tank is found to have microbial influenced/induced corrosion, repairs must be promptly made, and a follow-up formal external or internal inspection must be made no more than 2 years after the discovery of the corrosion.

If structural repairs are needed, a follow-up formal external/internal inspection every 5 years will be required.

Section 10.3.6.2 of STI SP001-06 states that if the tank has been exposed to a fire, natural disaster, excessive settlement, overpressure, or damage from cracking, the tank must be evaluated by an engineer experienced in AST design or by a tank manufacturer who will, jointly with the owner, determine if an immediate formal internal or external inspection is required. If a tank is exposed to fire or other means that could cause possible damage, it must be inspected by a certified inspector for serviceability and leaks before being put back into service. Consult with the tank manufacturer before making any alterations or repairs of leaks to a tank.

Section 10.4 of STI SP001-06 requires that a tank be taken out of service if a leak is found. The tank must then be repaired, replaced, or closed and removed from service in accordance with good engineering practices.

Required Integrity Testing for Future Shop-Fabricated ASTs and Requirements for Installation, Material Repair, and Recommissioning

For any new shop-fabricated tanks that may be installed in the future, MTSU should obtain certification of integrity testing from the manufacturer or installer before placing the tank into service. Likewise, if there is a material (significant) repair of any tank, the integrity of the tank must be tested by an appropriate method before the tank is returned to service.

15.6.3 Record Maintenance

Inspections must be documented and records maintained for at least 3 years by the Plan Administrator, or designee, performing the inspections. Some inspection records must be maintained for the life of the equipment plus 5 years. Tables 7-1 and 7-2 summarize required inspection and testing requirements for primary oil-containing structures at MTSU.

15.7 Control of Leakage through Internal Heating Coils

112.8(c)(7): You must control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

No tanks at this facility are equipped with internal heating coils; therefore, this section *is not applicable*.

15.8 Liquid-Level Sensing Devices

112.8(c)(8): You must engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid-level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities, an audible air vent may suffice.
(ii) High liquid-level pump cutoff devices set to stop flow at a predetermined container content level.
(iii) Direct audible or code signal communication between the container gauger and the pumping station.
(iv) A fast response system for determining the liquid-level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.
(v) You must regularly test liquid-level sensing devices to ensure proper operation.

Liquid Level Sensing Devices

MTSU uses multiple means to determine liquid level in oil storage containers, including manual gauging and site/clock gauges. Protection against tank overfill is achieved by (1) awareness of available tank capacity and inventory and (2) careful monitoring (either manually or automatically) and (3) control of product movement. At a minimum, direct audible or code signal communication between the container gauger and the individual transferring liquid is required

Testing of Liquid Level Devices

Visual gauges are tested during tank transfer by manual gauging to confirm the visual gauge's accuracy. The level monitoring system must be regularly tested to ensure the operational performance of the liquid level sensing devices.

Industry Standard Consideration

All gauging equipment, detector instrumentation, and related systems should be inspected and tested annually, at a minimum, as outlined in NFPA 30-2018.

15.9 Observation of Disposal Facilities for Effluent Discharge

112.8(c)(9): You must observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

MTSU does not have an onsite wastewater treatment plant; therefore, this section *is not applicable*.

The gravity OWS and the storm water treatment systems do not meet the definition of a wastewater treatment facility as defined in 40 CFR 112.1(d)(6).

15.10 Visible Oil Leak Corrections from Tank Seams and Gaskets

112.8(c)(10): You must promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

Visible oil leaks from oil storage systems will be identified during monthly visual inspections that are completed in accordance with Table 7-1 and example forms in Appendix B. Additionally, operational personnel will be trained and instructed to notify a supervisor and/or the MTSU EHS Officer if these conditions are observed. The MTSU EHS Officer is responsible for requesting a cleanup contractor to remove any spilled oil from the facility, and if needed, ensuring the tank seams or gaskets are repaired promptly.

Murfreesboro Electric Company will be contacted to repair any observed utility-owned leaking transformers.

15.11 Appropriate Position of Mobile or Portable Oil Storage Containers

112.8(c)(11) You must position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

Table 3-1 includes drum and tote oil storage containers that are in use at MTSU and also lists the general means and adequacy of containment. Most drums are housed within the Maintenance Complex with impermeable floors. In several locations, spill pallets are also used to contain spills and/or leaks. In addition, a spill kit with absorbent material is maintained in the Maintenance Complex in the event of a spill.

16.0 FACILITY TRANSFER OPERATIONS, PIPING, AND PUMPING

16.1 Buried Piping Installation Protection and Examination

112.8(d)(1): Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in 40 CFR 280 or a state program approved under 40 CFR 281. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

MTSU has buried piping associated with the two 20,000-gallon Co-Generation Plant diesel ASTs. Piping for the Co-Generation Plant tanks runs from just outside the diked area to the Co-Generation Plant across the street. The piping runs under the soil and a paved service road and through the building foundations. This piping was installed prior to August 16, 2002; therefore, corrosion protection is not required. However, if a section of underground piping is exposed for some reason, it will be inspected for deterioration and corrective actions undertaken if necessary.

16.2 Not-In-Service and Standby Service Terminal Connections

112.8(d)(2): Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

MTSU has no piping considered "not-in-service or on standby"; therefore, this section is *not applicable*.

16.3 Pipe Supports Design

112.8(d)(3): Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

No long runs of aboveground piping for oil products are present at the facility. Short runs of piping for the two 20,000-gallon Co-Generation Plant diesel tanks are protected by curbing and the proximity to the dike's containment area. Piping within the Co-Generation Plant (associated with the oil coolers) is protected by integral containment and by elevation. Aboveground piping associated with the generators, elevators, and transformers is protected by the integral containment surrounding each unit. No aboveground piping is associated with the used cooking oil containers.

16.4 Aboveground Valve and Pipeline Examination

112.8(d)(4): Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

The short piping runs are visually inspected during monthly visual inspections. Table 7-1 in Section 7 indicates requirements for routine and periodic inspections of aboveground piping. Routine inspections of valves, piping, hoses, and appurtenances can be documented using the piping inspection form in Appendix B to look for leaks, misalignment, vibration, supports, corrosion, and miscellaneous items. Operational personnel will be trained and instructed to notify the SPCC contacts listed in Section 2.2 any time leaks or signs of deterioration are observed.

16.5 Aboveground Piping Protection from Vehicular Traffic

112.8(d)(5): Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

Aboveground piping associated with the two 20,000-gallon Co-Generation Plant diesel tanks is situated away from vehicular traffic. The nearby service road, which is the only vehicle access, is curbed to prevent vehicles from leaving the pavement. The location is sufficiently close to the concrete diked area that the dike itself provides a barrier against vehicular collisions. Piping for the Co-Generation Plant oil coolers is housed inside a building, away from vehicular traffic. The generators and transformers have integral containment that prevents vehicular traffic from coming into contact with the piping. The hydraulic elevators are housed within buildings, away from vehicular traffic.

17.0 SPILL RESPONSE AND REPORTING PROCEDURES

SAFETY WARNING

Spilled fuel constitutes a fire and explosion hazard with the threat to human life and destruction of property. Petroleum vapors are also hazardous to personnel due to anesthetic and toxic concentrations below explosive levels. Volatile fuel may cause skin irritation if allowed to remain on the skin (e.g., soaked gloves and/or clothing). Personnel safety and protection of life and environment take precedence over property protection. If there is a threat to personnel safety, the local Fire Department should be the first official agency notified. Special precautions should be exercised when handling diesel or gasoline.

17.1 Spill Control Equipment and Materials

MTSU has adequate discharge response capability, equipment, and personnel to contain any discharge. MTSU provides spill response equipment in several locations within and around the facility, as shown in Appendix A. A mobile spill response trailer is maintained, which is stocked with absorbent spill control media, portable diversion/containment booms, and other spill control equipment. The EHS Officer identified in Section 2 is responsible for inventory control and maintenance of the mobile spill response trailer. In addition, MTSU also maintains a 3,000-gallon vacuum truck, located at the North Plant, which can be dispatched to contain leaks or spills, if necessary.

The following spill response equipment and materials are available onsite at MTSU:

- Adsorbent Pads and Booms
- Adsorbent Granules
- Oil Emulsifier
- Shovels/Rakes
- Vacuum Truck (3,000 gallons)
- Front End Loader
- Two-Way Radios

All members of the Spill Response Team, as well as other authorized MTSU personnel, are provided two-way radios for internal communications. In-plant telephone lines are also available for facility personnel to contact members of the Spill Response Team to report spills. Due to the close proximity of the two operational areas and the established internal communications system, it is possible for the mobile spill response trailer to be dispatched to the location of a spill in a timely manner.

Additionally, MTSU will contact the spill consultant if additional support is required by an outside discharge response contractor to respond to releases and control releases.

17.2 Discharge Notifications

MTSU personnel who identify an oil spill or release are instructed to notify the Spill Response Coordinator or MTSU Security via the two-way radio system. Spill-related emergency contacts are made on many levels, primarily local and regional.

Table 17-1 provides a prioritized telephone contact list. Notification will include the following (if known): amount and type of oil spilled, the source of the discharge, and the time the event occurred. When reporting a spill, include the information in the Response Notification Form in Appendix D.

Table 17-1
Emergency Notification List for Facility Personnel

Prioritized Contact List	Response Role	Day Phone	24 Hour Phone
Plan Administrator (To be determined)	Contact Emergency Responders; Plan Administrator Assist with spill control/cleanup operations and coordination; Assist with reporting	615-494-8708	—
Terry Logan, EHS Officer/Emergency Response	Emergency Response Assess scope of response required; Initiate spill control/cleanup if safe and within capabilities; Contact the Plan Administrator; Contact Department of General Services Environmental Compliance Manager, as needed; Contact Spill Consultant, as needed	615-898-5784	615-969-5804

Table 17-2
Emergency Notification List for Plan Administrator

Prioritized Contact List	Response Role	Day Phone	24-Hour Phone
Dispatch will notify whoever is needed — Tennessee Emergency Management Agency, etc.	Emergency Medical Initial spill response Fire suppression support	911	911
Murfreesboro Police Department	Traffic Control, Evacuation, Crowd Control (Major Incidents)	911 615-893-1311	911
MTSU Campus Police Department/MTSU Department of Public Safety	Traffic Control, Evacuation, Crowd Control (Minor Incidents)	911 615-898-2424	911
Murfreesboro Fire & Rescue Department	Emergency Medical Initial spill response Fire suppression support	911 615-893-1422	911
National Response Center	Receiver of all reports of spills to waters of the United States, or potential to affect waters.	800-424-8802	800-424-8802
EnSafe (Spill Consultant)	Provide response expertise Provide third-party spill response contractor for cleanup activities.	615-255-9300, but 888-590-8885 if an emergency	888-590-8885
Hospital — Saint Thomas Rutherford Hospital	Medical Support	911 615-396-4100	911
MTSU Student Health Services	Medical Support (non-emergency)	615-898-2988	615-898-2988
AeroCare Air Ambulance Service	Helicopter Ambulance Service	911 800-823-1911	911
Rutherford County Emergency Medical Services	Ground Ambulance Service	911 615-898-7811	911
Tennessee Department of Environment and Conservation (Nashville Environmental Field Office)	RQ Spill, NPDES, Storm Water Permits	615-687-7000	888-891-8332
Rutherford County Local Emergency Planning Committee	Identify available resources Mitigate hazards	615-898-7764	615-898-7764
Tennessee Emergency Management Agency	Spills that cannot be safely controlled or cleaned by facility personnel, and/or that affects or threatens to affect navigable waters or adjoining shorelines; Assist with large-scale emergency response planning	800-262-3300	800-262-3300
U.S. EPA Region 4, Emergency Response Branch (24-hour)	Spill prevention or spill response information	404-562-8700	404-562-8700

Notes:
NPDES = National Pollutant Discharge Elimination System
RQ = Reportable quantity
U.S. EPA = United States Environmental Protection Agency

17.3 Spill Response Procedures

A prompt and adequate response to any spill of petroleum at the MTSU facility is mandatory. Regardless of the size or scope of the spill, all releases should be reported to the EHS Officer. If the spill is large and cannot immediately be stopped (i.e., by shutting off a machine, closing a valve, etc.), the initial action to be taken by the individual discovering the spill should be to evacuate the area.

The general response procedure is outlined in the following subsections. Spill response procedures and initial contacts are also summarized in the Red Plan located at the back of this Plan.

17.3.1 Procedures for Individual Who Discovers Spill

An employee who discovers a spill shall:

- Ensure employee safety.
- Briefly assess the severity of the spill, determining the extent and nature of the event.
- Report spills of any size that cannot be contained or cleaned up by onsite personnel, and/or that affects or threatens to affect navigable waters or adjoining shorelines using the contacts in Table 17-1, Emergency Notification List for Facility Personnel. Report location of occurrence, type of occurrence, and if it involves injuries.

17.3.2 Procedures for Spill Response Personnel

The steps outlined below will be followed:

1. Determine if the spill represents a release to the environment.

    a. A **release** means any spilling, leaking, pumping, pouring, escaping, leaching, or disposing into the environment.

    b. The **environment** is defined as:

        - The navigable waters of the United States.
        - Any other surface water, ground water, drinking water supply, land surface, or subsurface strata, or ambient air within the United States.

- The City of Murfreesboro storm sewer or wastewater treatment plant via the sanitary sewer.

c. **Any release that gets outside of a building or outside of an impervious containment area should be considered a release to the environment.**

2. Determine if the quantity of material spilled represents a harmful (or reportable) quantity.

   A **harmful (reportable) quantity** of oil is defined as that which:

   a. Violates applicable water quality standards.

   b. Causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

   c. Enters the storm sewer system.

   d. Includes a spill of 25 gallons or more to the environment.

   e. Includes all spills that affect or threaten to affect navigable waters or adjoining shorelines.

3. Refer to Table 17-2, Emergency Notification List for the Plan Administrator, to identify actions to take and agency(ies) to contact when a spill of oil occurs.

   Information to be provided orally when reporting a spill includes the following:

   a. Time of the spill.

   b. Identity of the material spilled.

   c. Approximate quantity spilled.

   d. Location and source of the spill.

e. Cause and circumstances of the spill.

f. Existing or potential hazards (fire, explosion, etc.), if any.

g. Personal injuries or casualties, if any.

h. Corrective action being taken and an approximate timetable to control, contain, and clean up spill.

i. Name(s) and telephone number(s) of individual(s) who discovered and/or reported the spill.

j. Other unique or unusual circumstances.

4. For any spill of petroleum leaving the property and entering a drainage canal or storm drain, IMMEDIATELY NOTIFY:

   Tennessee Department of Environment and Conservation
   Division of Water Resources
   Nashville Environmental Field Office
   711 R. S. Gass Boulevard
   Nashville, Tennessee 37216
   615-687-7000
   888-891-8332

Following cleanup, ensure that the appropriate written reports are completed, and if necessary, submitted to governing regulatory agencies. See Section 18.

For small spills (i.e., those that do not place personnel at risk for exposure above the permissible exposure limits), facility personnel may be directed by the Plan Administrator to initiate containment/cleanup. Appropriate personal protective equipment will be donned and the proper cleanup materials (i.e., booms, absorbents, etc.) utilized. Spent absorbent materials should be placed in appropriate containers (i.e., drums kept with the spill kits) for disposal offsite. All waste products generated by spill cleanup will be managed per applicable local, state, and federal regulations. All equipment used during spill cleanup operations should be immediately replaced in the spill kit to maintain inventory. The Plan Administrator will inspect the area post-cleanup to verify that efforts were sufficient, and waste was properly packed for offsite disposal.

The Plan Administrator should be contacted immediately if a large oil/hazardous materials release occurs. Large spill cleanup may be handled by a third-party emergency response contractor as coordinated by the spill consultant. Contact information is in Table 17-2.

If a large spill occurs, efforts should be made to prevent oil/hazardous materials from reaching storm drains or Sinking Creek, or permeating into the ground which could contaminate groundwater. While these efforts are underway, the Plan Administrator will contact the spill consultant. The spill consultant has contracts with three emergency response contractors for statewide response activities. An emergency response contractor will be called to respond, when appropriate. The following steps should be taken in the event of a large release:

- Determine a spill is occurring.
- Immediately notify Plan Administrator.
- The Plan Administrator contacts the spill consultant and notifies appropriate/applicable local/state/federal agencies.
- When appropriate, the spill consultant contacts a third-party emergency response contractor.
- An area ahead of the spill should be diked prior to the arrival of the emergency response contractor to contain the spill onsite (whenever possible).
- The contractor will remediate the spill, under the supervision of facility personnel.

18.0 WRITTEN SPILL REPORT GUIDELINES

This section addresses written spill reporting requirements for onshore facilities and for internal record-keeping requirements.

18.1 Amendment of SPCC Plans by Regional Administrator

112.4(d) Amend your Plan, if, after review by the Regional Administrator of the information you submit under paragraph (a) of this section, or submission of information to EPA by the State agency under paragraph (c) of this section, or after onsite review of your Plan, the Regional Administrator requires that you do so. The Regional Administrator may require you to amend your Plan if he finds that it does not meet the requirements of this part or that amendment is necessary to prevent and contain discharges from your facility.

(e) Act in accordance with this paragraph when the Regional Administrator proposes by certified mail or by personal delivery that you amend your SPCC Plan. If the owner or operator is a corporation, he must also notify by mail the registered agent of such corporation, if any and if known, in the State in which the facility is located. The Regional Administrator must specify the terms of such proposed amendment. Within 30 days from receipt of such notice, you may submit written information, view, and arguments on the proposed amendment. After considering all relevant material presented, the Regional Administrator must either notify you of any amendment required or rescind the notice. You must amend your Plan as required within 30 days after such notice, unless the Regional Administrator, for good cause, specifies another effective date. You must implement the amended Plan as soon as possible, but no later than six months after you amend your Plan, unless the Regional Administrator specifies another date.

According to 40 CFR 112.4, MTSU is required to report a spill event to the regional administrator of U.S. EPA if the spill meets either of the criteria shown at right. The owner or operator of the facility shall submit a written report **within 60 days** of the date of the spill. The following information must be provided in the report:

U.S. EPA Spill Event Criteria

1. Greater than 1,000 gallons of oil into or upon the navigable water of the United States or adjoining shorelines in a single spill event.

OR

2. More than 42 gallons of oil in each of two discharges occurring within any 12-month period.

- Name of the facility.
- Name of person reporting spill.
- Location of the facility.
- Maximum storage or handling capacity of the facility and normal daily throughput.
- Corrective action and countermeasures taken, including a description of equipment repairs and replacements.
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary.

- The cause of such discharge as described in §112.1(b), including a failure analysis of the system or subsystem in which the failure occurred.

- Additional preventive measures taken or contemplated to minimize the possibility of recurrence.

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

This information will be submitted to the U.S. EPA at the following address:

U.S. EPA Region 4
Regional Administrator
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960
404-562-9900

A complete copy of all information provided to the Regional Administrator shall also be sent within 5 days to the TDEC, Division of Water Resources at the following address:

Tennessee Department of Environment and Conservation
Division of Water Resources
Nashville Environmental Field Office
711 R. S. Gass Boulevard
Nashville, Tennessee 37216
615-687-7000
888-891-8332

If required by the Regional Administrator after his review of the spill event information or an onsite review of the SPCC Plan, MTSU will amend its SPCC Plan. MTSU will amend the SPCC Plan within 30 days after receipt of notice from the Regional Administrator, unless the Regional Administrator, for cause, specifies another effective date. MTSU will implement the amended SPCC Plan as soon as possible, but not later than 6 months after SPCC Plan amendment, unless the Regional Administrator specifies another date.

18.2 State Agency Report

MTSU is required to report any spill event of 25 gallons or more to TDEC Division of Water Resources within 72 hours if it meets any of the following criteria:

- "violates applicable water quality standards, or
- causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines," or
- Includes any spill of 25 gallons or more to the environment (Tennessee Rules 0400-18-01-.05(4) and 68-215-127).

In addition, spills of any amount that cannot be contained or cleaned up by onsite personnel and/or affect or threaten to affect navigable waters require notification of TEMA. Within 15 days of a reportable event, submit a written report to:

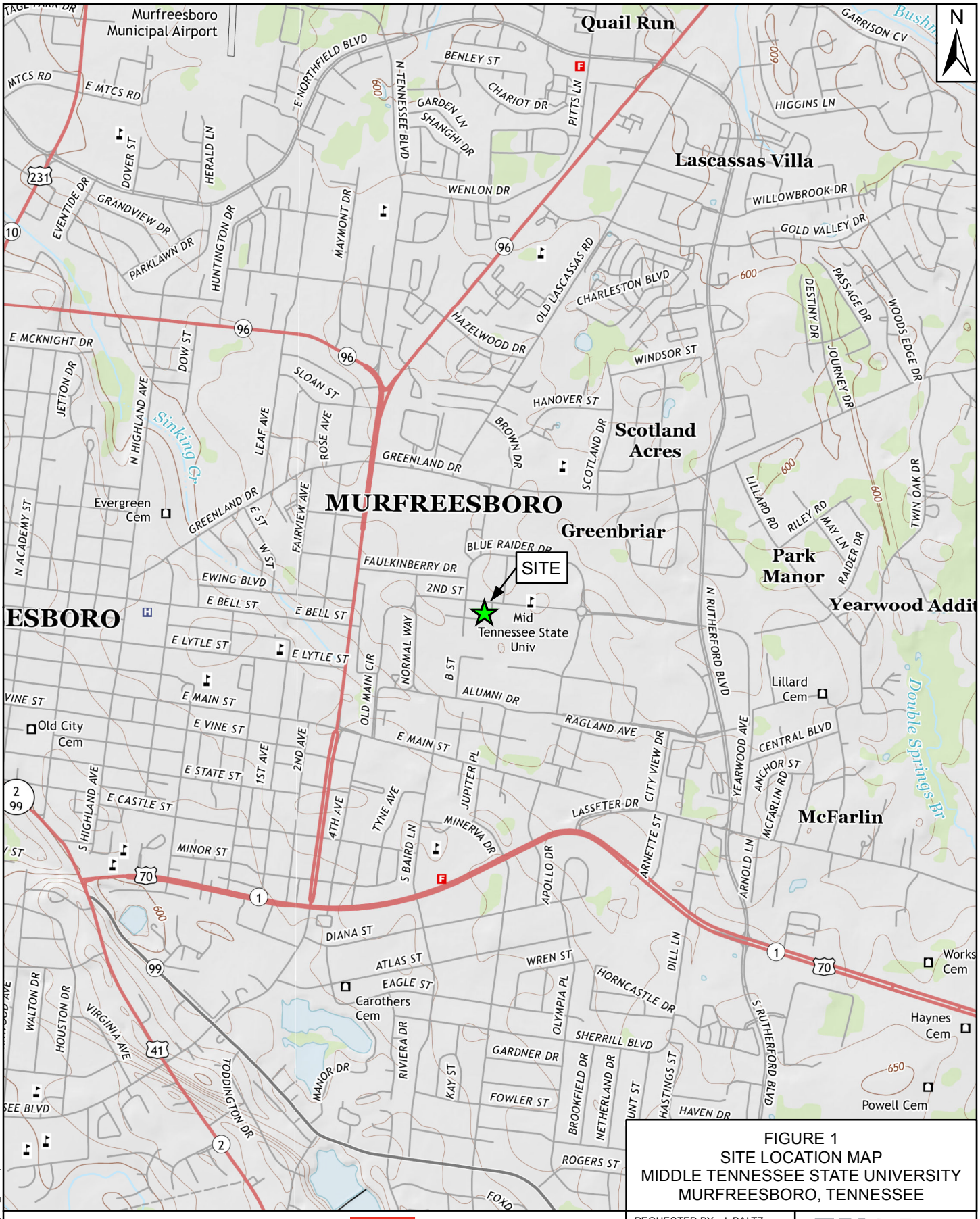
Tennessee Emergency Management Agency
3041 Sidco Drive
Nashville, Tennessee 37204

18.3 Internal Spill Report

Any spill requiring emergency cleanup should be logged for internal record keeping, using the Response Notification Form, in Appendix D. The report should be completed by the facility representative who led the emergency response. Spill reports should be kept on file for at least 3 years following the event. In addition, copies of all written spill reports are to be submitted to the Department of General Services Environmental Compliance Manager via email to Laura.Waynick@tn.gov or via mail to following address:

Laura Waynick, Environmental Compliance Manager
Department of General Services
Tennessee Tower, 24th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Appendix A
Facility Diagrams



Legend

★ Site Location

0 1,000 2,000 Feet

TN Department of General Services

FIGURE 1
SITE LOCATION MAP
MIDDLE TENNESSEE STATE UNIVERSITY
MURFREESBORO, TENNESSEE

REQUESTED BY:	J. BALTZ
DRAWN BY:	M. SENNE
DATE:	7/11/2019
PROJECT NO:	0888821830
PITTS NO.:	TB.166.009

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Sources: U.S. Geological Survey. Dillton, Murfreesboro quadrangles, Tennessee [map]. Photorevised 2013. 1:24,000. 7.5 Minute Series.

X:\DGS\MTSU\Fig1_Site_LocMap2019.mxd

LEGEND

- ABOVE GROUND STORAGE TANK (9)
- DIESEL GENERATOR (10)
- DRUM STORAGE (12)
- ELEVATOR (37)
- SPILL KIT (4)
- TRANSFORMER (92)
- UNDERGROUND STORAGE TANK (2)
- SURFACE WATER FLOW DIRECTION
- UK UNKNOWN

NAD83 STATE PLANE
TENNESSEE FEET

0 200 400
SCALE IN FEET

X:\DGS\MTSU\FIG2_MTSU_SPCC_2019.MXD

Sources: Google Earth Pro Imagery - 04/19/2018

JOB NO.	0888821830
PITTS NO.	TB.166.009
DRAWN BY:	M. SENNE
DATE:	7/11/2019
REVIEWED BY:	J. BALTZ
SCALE:	1 " = 200 '

TN Department of General Services

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FIGURE 2
SPCC FACILITY LAYOUT

MIDDLE TENNESSEE STATE UNIVERSITY
MURFREESBORO, TENNESSEE

Appendix B
Example Inspection Forms

SHOP-FABRICATED AST, GENERATOR, PAD-MOUNTED TRANSFORMER, AND USED COOKING OIL CONTAINER INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of shop-fabricated ASTs (i.e., typically consumptive-use tanks), diesel-fueled electrical generators, pad-mounted electrical transformers, used cooking oil containers, and hydraulic oil reservoirs. Notify the Plan Administrator immediately if any significant deficiencies are identified.

Industry Standard Consideration: STI SP001-06 (for shop-fabricated ASTs) and IEEE 62 (for transformers)

Frequency: Other than pad-mounted transformers—monthly; pad-mounted transformers—annually

Tank/Container, Date: _____ Inspector: _____

	YES	NO	NA	CAR	Comments
STRUCTURAL INTEGRITY					
Visible signs of leakage from tank?	☐	☐	☐	☐	_____
Surface free of leaks?	☐	☐	☐	☐	_____
Valves and gaskets free of leaks?	☐	☐	☐	☐	_____
Condition sound (no corrosion, pitting, distortions)?	☐	☐	☐	☐	_____
Bolts, rivets, welds, and seams intact/sound?	☐	☐	☐	☐	_____
Supports and foundation intact/sound?	☐	☐	☐	☐	_____
Tank drains closed?	☐	☐	☐	☐	_____
Level gauges and alarms working?	☐	☐	☐	☐	_____
Vents unobstructed and clean?	☐	☐	☐	☐	_____
Presence of water in primary tank?	☐	☐	☐	☐	_____
Grounding system functional?	☐	☐	☐	☐	_____
Cathodic protection system functional?	☐	☐	☐	☐	_____
ATTACHED PIPING					
Surface free of leaks?	☐	☐	☐	☐	_____
Valves and fittings free of leaks?	☐	☐	☐	☐	_____
Piping adequately supported?	☐	☐	☐	☐	_____
Pipes and supports free of corrosion?	☐	☐	☐	☐	_____
Buried pipes exposed?	☐	☐	☐	☐	_____
Out-of-service pipes capped?	☐	☐	☐	☐	_____
Signs/barriers present near aboveground piping?	☐	☐	☐	☐	_____
Localized cover/vegetation free of stain/distress?	☐	☐	☐	☐	_____
SECONDARY CONTAINMENT					
Drainage valves closed and locked?	☐	☐	☐	☐	_____
Drainage valves free of leaks?	☐	☐	☐	☐	_____
Containment area free of drainable water?	☐	☐	☐	☐	_____
Standing water free of product/sheen?	☐	☐	☐	☐	_____
Debris absent?	☐	☐	☐	☐	_____
Containment structure intact/sound?	☐	☐	☐	☐	_____
Water able to drain away from tank?	☐	☐	☐	☐	_____
Presence of water/fuel in interstice (DW AST?)	☐	☐	☐	☐	_____
Interstice leak detection operable (DW AST?)	☐	☐	☐	☐	_____
SECURITY					
Unit locked?	☐	☐	☐	☐	_____
Gates/fences intact/sound?	☐	☐	☐	☐	_____
Gates/fences locked?	☐	☐	☐	☐	_____
Starter controls locked?	☐	☐	☐	☐	_____
Lighting adequate?	☐	☐	☐	☐	_____

Notes:

AST	=	aboveground storage tank
CAR	=	corrective action required
DW	=	double-walled
IEEE	=	Institute of Electrical and Electronics Engineers
NA	=	not applicable
STI	=	Steel Tank Institute

DRUM AND PORTABLE/MOBILE CONTAINER INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of drums and portable/mobile containers. Notify the Plan Administrator or designee immediately if any significant deficiencies are identified.

Industry Standard: STI SP001-06

Frequency: Monthly

Storage Area/Date: _____ Inspector: _____

DRUM OR CONTAINER CONDITION	YES	NO	NA	CAR	Comments
SECONDARY CONTAINMENT					
Containment structure/diversion system present?	☐	☐	☐	☐	
Containment structure impermeable?	☐	☐	☐	☐	
Containment structure intact/sound?	☐	☐	☐	☐	
Debris/fluids absent?	☐	☐	☐	☐	
DRUM OR CONTAINER STORAGE AREA					
Located in designated storage area?	☐	☐	☐	☐	
Secure?	☐	☐	☐	☐	
Aisle space adequate for drum movement?	☐	☐	☐	☐	
Egress pathways clear and gates/doors operable?	☐	☐	☐	☐	
Debris, fluids or other fire hazards absent?	☐	☐	☐	☐	
Lighting adequate?	☐	☐	☐	☐	
Area organized/orderly?	☐	☐	☐	☐	
Incompatible material segregated?	☐	☐	☐	☐	
SPILL RESPONSE					
Spill response materials nearby?	☐	☐	☐	☐	
Spill response materials adequate?	☐	☐	☐	☐	
Emergency telephone number/POC posted?	☐	☐	☐	☐	

Notes:

CAR	=	corrective action required
NA	=	not applicable
POC	=	point of contact
STI	=	Steel Tank Institute

LOG FOR DRAINAGE OF DIKE BASINS/SECONDARY CONTAINMENT

Instructions: This log must be completed each time storm water is discharged from secondary containment. The storm water shall not be discharged without treatment if it has a visible sheen. Furthermore, any product in the secondary containment structure must be removed. Notify the Plan Administrator or designee immediately if any significant deficiencies are identified.

Industry Standard Consideration: NFPA 30-2018

Frequency: After each significant rain event

Date Of Draining Operation	Time Site Was Drained	Description Of Tank/ Vault/ Secondary Containment Site	Name Of Individual Inspecting Water Before Draining	Presence Of Sheen (X)		Signature Of Individual Draining Containment Site
				YES[1]	NO	

Notes:

1 = product or sheen

NFPA = National Fire Protection Association

SPILL KIT CHECKLIST

Instructions: Complete routine external visual inspection of spill kits. Notify the Plan Administrator immediately if any significant deficiencies are identified.

Industry Standard: Facility operating procedures

Frequency: Monthly

Location: ______________________ Inspector: ______________________
Date: ______________________

SPILL RESPONSE	YES	NO	NA	CAR	Comments
Spill response materials near sources?	☐	☐	☐	☐	______________
Spill response materials adequate?	☐	☐	☐	☐	______________
Emergency telephone number/contact posted?	☐	☐	☐	☐	______________
Personal protective equipment in kit?	☐	☐	☐	☐	______________

Location: ______________________ Inspector: ______________________
Date: ______________________

SPILL RESPONSE	YES	NO	NA	CAR	Comments
Spill response materials near sources?	☐	☐	☐	☐	______________
Spill response materials adequate?	☐	☐	☐	☐	______________
Emergency telephone number/contact posted?	☐	☐	☐	☐	______________
Personal protective equipment in kit?	☐	☐	☐	☐	______________

Location: ______________________ Inspector: ______________________
Date: ______________________

SPILL RESPONSE	YES	NO	NA	CAR	Comments
Spill response materials near sources?	☐	☐	☐	☐	______________
Spill response materials adequate?	☐	☐	☐	☐	______________
Emergency telephone number/contact posted?	☐	☐	☐	☐	______________
Personal protective equipment in kit?	☐	☐	☐	☐	______________

Notes:
CAR = corrective action required
NA = not applicable

TANK TRUCK FUEL LOADING/UNLOADING INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of truck loading/unloading areas. Notify the Plan Administrator or designee immediately if any significant deficiencies are identified.

Industry Standard Consideration: American Petroleum Institute 2610
Frequency: As needed

Location: _____ Inspector: _____
(Print Name)

Date: _____ Inspector: _____
(Signature)

	SAT	UNSAT	NA	CAR	Comments
HOSES, PIPES, AND VALVES					
Leaks	☐	☐	☐	☐	_____
Operation	☐	☐	☐	☐	_____
Deterioration	☐	☐	☐	☐	_____
Clamps and supports	☐	☐	☐	☐	_____
STRUCTURE					
Bolts, clamps, and supports	☐	☐	☐	☐	_____
Roofing and ladders	☐	☐	☐	☐	_____
GENERAL					
Electrical ground	☐	☐	☐	☐	_____
Portable equipment stowed	☐	☐	☐	☐	_____
Secondary containment structure	☐	☐	☐	☐	_____
Instruction/warning signage	☐	☐	☐	☐	_____
Traffic control devices	☐	☐	☐	☐	_____
Dispenser labeling	☐	☐	☐	☐	_____
Security lighting	☐	☐	☐	☐	_____
CONTROL DEVICES	**SAT**	**UNSAT**	**NA**	**CAR**	
Early departure warning device	☐	☐	☐	☐	_____
Starter control	☐	☐	☐	☐	_____
Scully system	☐	☐	☐	☐	_____
Dead-man controls	☐	☐	☐	☐	_____
Pumps	☐	☐	☐	☐	_____
SECONDARY CONTAINMENT					
Drain inlets protected	☐	☐	☐	☐	_____
Spill response material on hand	☐	☐	☐	☐	_____
Oil stains/sheen	☐	☐	☐	☐	_____

Notes:

CAR = corrective action required
NA = not applicable
SAT = satisfactory
UNSAT = unsatisfactory

Appendix C
Training Record Forms

Middle Tennessee State University
Spill Prevention, Control, and Countermeasure Plan Training Roster

Training Topic _____

Training Date _____

Personnel	Unit/Assignment	Telephone Number

Appendix D
Spill Report Forms

Middle Tennessee State University Emergency Action Checklist			
Incident Title:			**Date:**
Reported By:			**Time:**
Status			**Steps To Be Taken in an Emergency Situation**
Done	**To Do**	**NA**	
			1. Identify the source of the spill.
			2. Provide first aid to any injured. Call 911 if assistance is required.
			3. Notify:
			a. Fire Department: Assistant Fire Chief or Fire Crew Chief (Incident Commanders) 911
			b. Plan Administrator (to be determined) 615-494-8708
			c. Terry Logan, Environmental Health and Safety Officer 615-969-5804
			4. Stop the flow of oil/hazardous substance (without endangering personnel).
			a. Close valve.
			b. Tighten gasket.
			c. Shut down pump.
			d. Complete any necessary action to stop the flow of oil/hazardous substance.
			5. Close all spill drains.
			6. Close/stop all downstream drains.
			7. Estimate the amount and type of oil spilled or hazardous substance released.
			8. Secure the area.
			9. Identify hazards and immediate areas threatened.
			10. Make initial external notifications in accordance with Table 17-1 of the SPCC Plan.
			11. Initiate memorandum of agreements for support and response contractors as necessary.
			12. Start cleanup.
			13. Remove/reuse recovered material.
			14. Complete follow up external notifications in accordance with Table 17-2 of the SPCC Plan.

Notes:

NA = not applicable

SPCC = Spill Prevention, Control, and Countermeasure

Middle Tennessee State University Environmental Health and Safety Officer Checklist			
Done	**To Do**	**NA**	**Discovery and Notification**
			Ensure required installation, regulatory agency, and response contractor notifications are made.
Initial Actions			
			Spill response contractor activated (time):
			Evaluate the incident: • Materials involved – • Personnel hazards – • Fire/explosion hazard – • Total amount lost – • Recovered amount – • Evaporation/burned – • Uncontained – • Wildlife impact –
			Perform initial site safety characterization. Use Initial Site Safety and Control Analysis Form in this appendix.
			Prepare/deliver initial incident assessment briefing to spill management team.
			Advise the federal on-scene coordinator on actions being taken.
			Determine if support is sufficient: • Land response equipment needed – • Water response equipment needed –
Defensive Actions			
			Secure the source.
			Prepare and follow site safety plan: • Conduct site safety briefings for response personnel. • Establish decontamination procedures for response personnel. • Set up eyewash/washdown/decontamination station.
			Set up first-aid stations.
			Designate exposure monitoring personnel.
			Deploy response assets.
			Evacuations: • Facility evacuation • Community evacuation
			Request assistance if required.
			Establish site traffic control.

Middle Tennessee State University Environmental Health and Safety Officer Checklist (continued)			
Done	**To Do**	**NA**	**Discovery and Notification**
			Establish command post and communications center.
			Establish unified command with federal and state on-scene coordinators.
			Obtain source(s) for material handling equipment.
			Communications: • Obtain cellular phones. • Establish working channels (VHF).
Recovery, Cleanup, and Disposition			
			Coordinate cleanup with federal (NRT, RRT, etc.), and state agencies.
			Obtain food and water for response personnel.
			Obtain sanitary facilities within reasonable distance of site.
			Document respiratory and/or skin reaction complaints.
			Initiate salvage operations.
			Implement/maintain fire control.
			Obtain samples for analysis.
Documentation and Cost Recovery			
			Prepare preliminary damage assessment and update frequently.
			Prepare natural resource damage assessment.
			Maintain field accounting for accurate cost tracking.
			Identify funding sources.
			Waste Management: • Type of oil or hazardous substance – • Amount of contaminated liquids – • Amount of contaminated solids – • Amount of hazardous materials –
			Determine proper storage procedures for contaminated materials.
			Determine proper disposal procedures for contaminated materials and coordinate disposal with appropriate federal and state agencies.
			Communicate available information on response activities to Public Affairs Officer (facts only, no speculation) for dissemination to media.

Notes:

NA = not applicable
NRT = National Response Team
RRT = Regional Response Team

Middle Tennessee State University Response Notification Form		
Incident Title:		
Reporter Information		
Reporter's Name		
Reporter's Telephone Number		
Reporter's Position		
Facility Name	Middle Tennessee State University	
Owner's Name	Tennessee Board of Regents	
Address	Street:	1301 East Main Street
	City:	Murfreesboro
	County:	Rutherford
	State:	Tennessee
	Zip Code:	37130
Materials Released?	☐ YES	☐ NO
Federal Reporting Requirements Met?	☐ YES	☐ NO
Responsible Parties Called?	☐ YES	☐ NO
Date and Time of Each NRC Notification (use 24-hour time)		

Notes:
NRC = National Response Center

Middle Tennessee State University Response Notification Form (continued)	
Incident Title:	
Incident/Spill Description	
Source and/or Cause of Incident	
Date	
Time of Incident	
Incident Address/Location	
Nearest City	
County	
State	
ZIP Code	
Distance from City (miles)	
Incident Container Type	
Incident Tank Capacity	
Total Incident Capacity	
Weather Conditions	
Material Released (land or water)? ☐ YES ☐ NO	Total Quantity Released Material Released into Water? ☐ YES ☐ NO Quantity Released into Water

Middle Tennessee State University Response Notification Form (continued)	
Incident Title:	
Response Actions	
Initial Response Actions (Include Activity Name)	
Actions Taken to Control Incident (Include Responders' Names)	
Actions Taken to Mitigate Incident (Include Responders' Names)	

Middle Tennessee State University Response Notification Form (continued)	
Incident Title:	
Impact	
Number of Injuries	
Number of Deaths	
Evacuation(s) Required?	☐ YES ☐ NO
Number Evacuated	
Was There Any Damage?	☐ YES ☐ NO
Damage in Dollars (estimated)	
Medium (soil, water, etc.) Affected	
Description of Effect	
Additional Information about Medium (soil, water, etc.)	
Additional Information (any information about the incident not recorded elsewhere in the report)	

Middle Tennessee State University Response Notification Form (continued)				
Incident Title:				
Notification Status	**Contacted?**	**Date Contacted**	**Name/Contact**	**Call-Back Telephone Number**
Fire Department: 911	☐ Yes ☐ No			
Plan Administrator: 615-494-8708	☐ Yes ☐ No			
Environmental Health and Safety Officer: 615-898-5784 or 615-969-5804	☐ Yes ☐ No			
University Police: 615-898-2424	☐ Yes ☐ No			
NRC: 800-424-8802	☐ Yes ☐ No			
U.S. EPA Region 4, USCG Sector Ohio Valley and other State agencies as necessary: covered by call to NRC	☐ Yes ☐ No			
Tennessee Emergency Management Agency 800-262-3300	☐ Yes ☐ No			
Spill Response Consultant: EnSafe Inc. 888-590-8885	☐ Yes ☐ No			

Notes:

U.S. EPA = U.S. Environmental Protection Agency
USCG = United States Coast Guard
NRC = National Response Center

Middle Tennessee State University
Response Notification Form (continued)

Incident Title:

Notification Status	Contacted?	Date Contacted	Name/Contact	Call-Back Telephone Number
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			

Middle Tennessee State University
Initial Site Safety and Control Analysis – Part 1

Incident Title:	**Date Prepared:**	**Time Prepared:**	**Location:**

To be completed by Environmental Health and Safety Officer prior to any immediate response actions.

Incident Commander:

1. Wind direction across incident:	Toward your position ☐	Away from your position ☐

2. Are people trapped or injured? ☐ Yes ☐ No

3. Are people involved as unorganized observers or involved in rescue attempts? ☐ Yes ☐ No

4. Are there any immediate signs of potential hazards?	a. Electrical lines down or overhead?	☐ Yes ☐ No
	b. Unidentified liquid or solid products visible?	☐ Yes ☐ No
	c. Colored vapors visible?	☐ Yes ☐ No
	d. Smells which are not natural noted?	☐ Yes ☐ No
	e. Fire, sparks nearby, sources of ignition present?	☐ Yes ☐ No
	f. Holes, caverns, deep ditches, fast-moving water, cliffs nearby?	☐ Yes ☐ No
	g. Is local traffic a potential problem?	☐ Yes ☐ No
	h. Signs, placards, or color codes indicating danger?	☐ Yes ☐ No
	i. Spill zone	☐ Dry ☐ Wet ☐ Icy

5. As you approach the scene from the upwind side, did you note a change in the status of any of the above?
☐ Yes ☐ No

6. Have you established control of the area involved in the incident?

Hot Zone	☐ Yes ☐ No
Warm Zone	☐ Yes ☐ No
Incident Site	☐ Yes ☐ No

7. Have you determined the necessity for any of the following?	a. Security?	☐ Yes ☐ No
	b. Hazardous material technician to identify or monitor substances involved in the incident?	☐ Yes ☐ No
	c. Protective gear and to what level of protection?	☐ Yes ☐ No
	d. Site for decontamination center?	☐ Yes ☐ No
	e. Site for command center?	☐ Yes ☐ No
	f. Safety equipment you will need to eliminate the problems?	☐ Yes ☐ No
	g. Placement of the warning sign? (i.e., benzene, no smoking, etc.)	☐ Yes ☐ No
	h. Number of personnel needed to control the situation?	☐ Yes ☐ No

Notes:

1. Before entering a potentially hazardous work environment, **IT MUST BE EVALUATED BY A COMPETENT PERSON** to establish safe work practices, personnel protective equipment, and other control procedures. As a minimum, lower explosive limit, oxygen, and benzene concentrations must be evaluated.
2. Spill cleanup areas shall be controlled as "regulated areas." If benzene vapors are or may be expected to equal the action level of 0.5 part per million, then the area must be posted with the following warning:

DANGER – BENZENE
CANCER HAZARD
FLAMMABLE – NO SMOKING
AUTHORIZED PERSONNEL ONLY
RESPIRATOR REQUIRED

Middle Tennessee State University
Initial Site Safety and Control Analysis – Part 2

Incident Title:	**Date Prepared:**	**Time Prepared:**	**Location:**

1. Review your "Initial Site Safety and Control Analysis" report.
2. Use the map provided in the Red Plan. Mark the incident and prevailing wind direction. Include at least two major landmarks and an address, if known.
3. *Analysis of potential harmful substances on scene and exposure factor:

Type of Substance	**Container**	**Secure?**

4. *Protective gear required:
   a. Respirator protection required? ☐ Yes ☐ No
      If yes, what type_____
   b. Self-contained breathing apparatus required? ☐ Yes ☐ No
   c. Protective clothing required? ☐ Yes ☐ No

   If yes, what level of protection is required and describe in detail:

5. Set up monitoring system, if required.

* To be completed by Environmental Health and Safety Officer or qualified technician.

Middle Tennessee State University
Initial Site Safety and Control Analysis – Part 2 (continued)

Incident Title:	**Date Prepared:**	**Time Prepared:**	**Location:**

6. Is a vehicle/vessel/tank involved? ☐ Yes ☐ No

If yes:

Driver's/Captain's Name:	Driver's/Captain's License:
Equipment/Vehicle Number:	Tractor/Trailer Number:
Railcar Number:	Vessel Number:
Ship Name and Number:	

7. General Information:

Carrier's Name:	Telephone Number:
Manufacturer of Chemical:	Telephone Number:
Point of Origin:	Destination:
Ship Name and Number:	

8. Call 911 if medical assistance is required. Call Security as threat conditions warrant.

9. *Determine degree of decontamination required and designate area.

10. Set up secure area and notify area residents, if applicable.

11. Establish safe work practices, personnel protective equipment requirements, and area vapor monitoring requirements. Conduct a field meeting with all personnel to explain in detail communication requirements, personal protective equipment, and other site-specific requirements as necessary.

12. Start control, containment, cleanup decontamination, and disposal process.

* To be completed by Environmental Health and Safety Officer or qualified technician.

Middle Tennessee State University Initial Site Safety and Control Analysis – Part 2 (continued)			
Incident Title:	**Date Prepared:**	**Time Prepared:**	**Location:**

Prepared by:	**Environmental Health and Safety Officer**
Contents	*Responsible Person*
General Advisories	**Environmental Health and Safety Officer**
Division/Group	**Environmental Health and Safety Officer**
Chemical/Physical Hazards	**Environmental Health and Safety Officer**
Precautions	**Environmental Health and Safety Officer**
Approved by	**Incident/Deputy Commander**
Distribution	All Recipients of Incident Action Plans

Additional Notes/Items of Importance

Protection Priorities	**- Human Life and Property** **- Natural Resources** **- Economic and Public Impact**

MIDDLE TENNESSEE STATE UNIVERSITY
RED PLAN[1]

Table Red Plan-1
Immediate Response Actions

Action	Comments
1. Alert personnel within the immediate area	Have nonessential personnel evacuate to the area *upgradient and upwind* and report to a designated meeting place. If there are fuel vehicles in the area, have the drivers relocate them **if it is safe to do so**.
2. Identify the materials that have been spilled	Check the Safety Data Sheets for each chemical if you are unfamiliar with the hazards and wear proper Personal Protective Equipment. **Do not attempt to clean up the spill if you are not properly trained to do so.**
3. Eliminate the source of the spill	Immediately shut off the source of the spill or upright the container **if it is safe to do so**. Minimize and contain the spill.
4. Eliminate flame or other sources of ignition	Extinguish any source of spark or flame in the area. Cease operation of machinery near the spill.
5. Report the spill	Get help as soon as possible. Report the spill to your supervisor. **Call the Fire Department at 911.**
6. Evacuate nonessential personnel	Evacuate from the affected area (building, upwind, upgradient, etc.). Control the perimeter of the spill area.
7. Contain and absorb	Keep the spill from spreading by using absorbent or other spill response materials. Block or divert from storm drains, ditches, or ventilation systems.
8. Clean up and decontaminate	Once the spilled material is absorbed, remove all contaminated materials and decontaminate equipment and responders.
9. Dispose	After decontamination, all materials must be properly packaged for disposal and labeled in accordance with hazardous waste disposal procedures such as Title 29 Code of Federal Regulations Part 1200.
10. Restore surroundings	Be sure all safety and cleanup equipment and materials are replenished and ready for future use.

[1] In the event of a spill at the Middle Tennessee State University, the Red Plan serves as the "Jump Start" for initiating response actions. All information contained in the Red Plan has been extracted directly from the Spill, Prevention, Control, and Countermeasure (SPCC) Plan. The Red Plan user is expected to transition to the SPCC Plan as soon as possible.

Protection Priorities	**- Human Life and Property** **- Natural Resources** **- Economic and Public Impact**

Table Red Plan-2 "Key" Emergency Personnel/Offices	
Murfreesboro Fire & Rescue Department	**911 (on/off duty hours primary) (615) 893-1422 (non-emergency)**
MTSU Campus Police/MTSU Department of Public Safety	**911 (on/duty hours primary) (615) 898-2424 (non-emergency)**
Murfreesboro Police Department	**911 (on/off duty hours primary) (615) 893-1311 (non-emergency)**
Environmental Health and Safety Officer – Terry Logan	**(615) 898-5784 (on duty hours primary) (615) 969-5804 (off duty hours primary)**
Plan Administrator (To be determined)	**(615) 494-8708 (on duty hours primary) --- (off duty hours primary)**
Spill Consultant – EnSafe Inc.	**(888) 590-8885 (on/off duty hours primary) (615) 255-9300 (non-emergency)**
Oil Spill Clean-up Contractor – MKC Enterprises, Inc.	**(800) 457-6521 (on/off duty hours primary)**
Department of General Services Environmental Laura Waynick, Compliance Manager	**(615) 741-9225 (on duty hours primary) (615) 428-8101 (off duty hours primary)**

Table Red Plan-3 "Immediate" External Notifications	
National Response Center (Federal Reporting Requirements — notifies U.S. Environmental Protection Agency Region 4 U.S. Coast Guard District 8 if applicable; and other State agencies as necessary)	**(800) 424-8802**
Rutherford County Emergency Medical Services	**911 (615) 898-7811**
Hospital – Saint Thomas Rutherford Hospital MTSU Student Health Services	**911 (615) 396-4100 (615) 898-2988 (non-emergency)**
AeroCare Air Ambulance Service	**911 (800) 823-1911**
U.S. Environmental Protection Agency Region 4, Emergency Response Branch (24-hour)	**(404) 562-8700**
Tennessee Department of Environment and Conservation (Nashville Environmental Field Office)	**(615) 687-7000 (888) 891-8332**

Protection Priorities	**- Human Life and Property** **- Natural Resources** **- Economic and Public Impact**

Table Red Plan-4 Immediate Spill Notification Form	
DO NOT DELAY NOTIFICATION PENDING COMPLETE INFORMATION	
Time:	Date:
Name and Location of Facility/Building Number:	
Name of Individual Making Report:	
Contact Phone Number:	
Type of Product Spilled:	Time of Spill:
Quantity Released:	Duration of Release:
Did the Spill Reach Navigable Waters?	☐ YES ☐ NO
Cause and Source of Discharge:	
Actions Being Taken:	
Injuries or Deaths:	☐ YES ☐ NO

Safety Considerations -

- Consider potential safety and health hazards for each spill.
- Use the "buddy system" for entry.
- Obtain current health hazard data.
- Do not work in environments that exceed your training or capabilities.
- Inform supervisor of intended destination and estimated time of return.
- Do not unnecessarily enter or travel into spill areas.
- Avoid skin contact with spilled material.
- Use proper personal protective equipment, minimally:
  - Hard hat
  - Gloves
  - Coveralls
  - Boots
  - Eye/face protection.
- Do not rely on your senses to determine hazardous conditions - use calibrated detection devices.

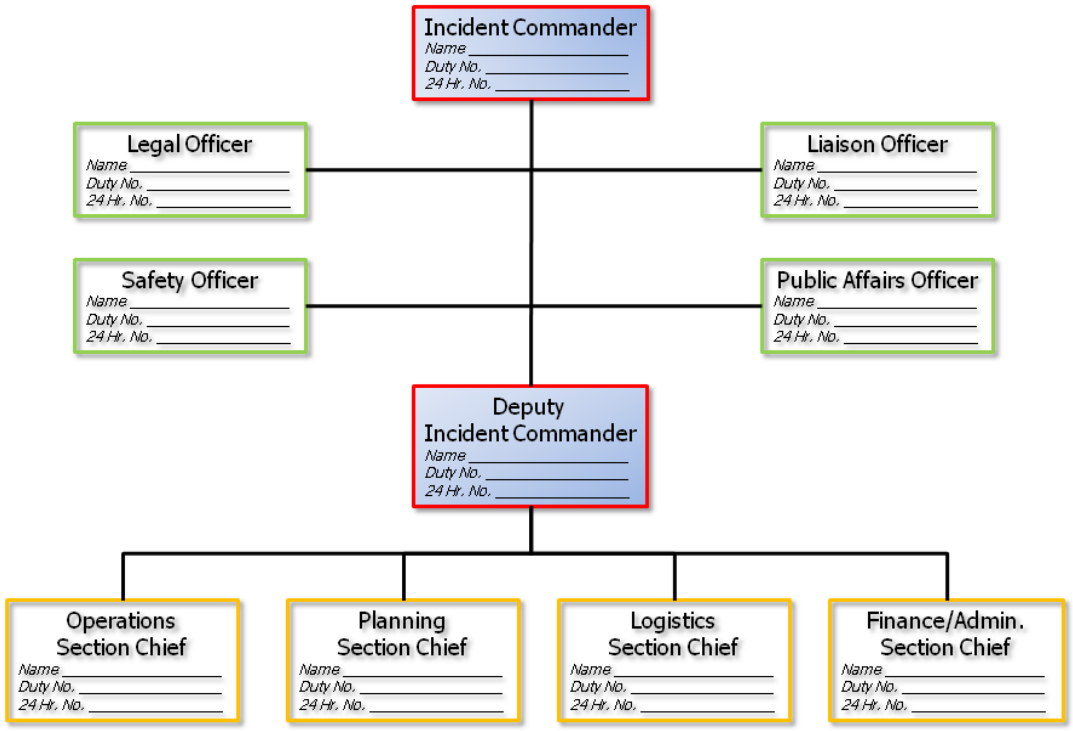
Protection Priorities	- Human Life and Property - Natural Resources - Economic and Public Impact

INCIDENT BRIEFING	1. Incident Name:	2. Date Prepared:	3. Time Prepared:
Sketch Spill Area Here			

Protection Priorities	- Human Life and Property - Natural Resources - Economic and Public Impact

INCIDENT BRIEFING	1. Incident Name:	2. Date Prepared:	3. Time Prepared:

Current Organization



Resource Summary:

Resources Ordered	Resources identified	ETA	On Scene	Location/Assignment

Protection Priorities	**- Human Life and Property** **- Natural Resources** **- Economic and Public Impact**

INCIDENT BRIEFING	**1. Incident Name:**	**2. Date Prepared:**	**3. Time Prepared:**

Command Objectives:

Summary of Current Actions:

ICS 201	Page _____ of _____	Prepared by:

Initial Spill Contact Flow-Chart:

*This flowchart is meant to aid in determining under what conditions agencies/individuals should be contacted during initial spill response activities. Use this flowchart **after** contacting emergency services at 911 (if needed in the event of injuries, fire, etc.). If the spill cannot be controlled or cleaned by facility personnel, TEMA should be contacted at (800) 262-3300.*

Has material spilled on the ground and/or escaped from containment (spill pallets, dikes, etc.)? *(If the spill involves a generator or transformer, contact the owner, as well as the agencies/individuals indicated below.)*

No →
- Plan Administrator (To be determined) at: (615) 494-8708 (office)
- Initiate immediate Response Actions per the MTSU Red Plan

Yes ↓
- Contact Plan Administrator (To be determined) at: (615) 494-8708 (office)
- Initiate immediate Response Actions per the MTSU Red Plan
- Proceed to the question below:

Has more than 25 gallons of material spilled?

No →

Has the spilled material impacted surface water and/or sanitary/storm sewers?

No →
- Continue with spill cleanup as needed

Yes ↓
- Contact the Spill Consultant at (888) 590-8885
- Contact TDEC at (888) 891-8332
- Contact NRC at (800) 424-8802
- Contact DGS at (615) 428-8101
- Contact TEMA at (800) 262-3300 (for spills to navigable waters/shorelines)
- Contact the owner of the sewer (if applicable)
- Proceed to the next question below:

Yes ↓
- Contact the Spill Consultant at (888) 590-8885
- Contact TDEC at (888) 891-8332
- Contact DGS at (615) 428-8101
- Proceed to the next question below:

Has the spilled material also impacted surface water and/or sanitary/storm sewers?

No ←
- Continue with spill cleanup as needed
- Follow up with written spill reporting as outlined in Sections 17 and 18 of the SPCC Plan

Yes ↓
- Contact NRC at (800) 424-8802
- Contact TEMA at (800) 262-3300 (for spills to navigable waters/shorelines *or uncontrolled)*
- Contact the owner of the sewer (if applicable)
- Proceed to the next question below:

Has more than 1,000 gallons of material spilled, or have more than two spills of more than 42 gallons occurred in the last 12-month period?

No →
- Continue with spill cleanup as needed
- Follow-up with required written spill reporting as outlined in Sections 17 and 18 of the SPCC Plan

Yes ↓
- Contact the U.S. EPA at (404) 562-8700
- Follow-up with required written reporting as outlined in Sections 17 and 18 of the SPCC Plan

Notes:
DGS – Department of General Services
NRC – National Response Center
SPCC – Spill Prevention Control and Countermeasure
TDEC – Tennessee Department of Environment and Conservation
TEMA – Tennessee Emergency Management Agency
U.S. EPA – United States Environmental Protection Agency

FIRST RESPONDER REPORTING FORM

Collect as much of the following information as reasonable before making initial notification.

Critical Information	
Name and rank of reporting individual	
Location of spill (building/area number, indoors or outside)	
Number of injured personnel	
Type of injuries	
Substance(s) spilled	
Estimated quantity spilled	
Rate of discharge/release	
Time of spill	
Extent of spill travel	

Does the Fire Department need to respond to protect life, property, or environment?	Yes	No

Additional Information (i.e., other potential hazards)

Initial information is critical. Get as much information as you can, but don't hesitate to make the initial notification if a spill is moving or worsening rapidly!

REVERSE CARD FOR SPILL RESPONSE ACTION