

Spill Prevention Control and Countermeasure
(SPCC) Plan and Oil Filled Operational
Equipment Oil Spill Contingency Plan

Wake Forest University Corporate Center
Winston-Salem, North Carolina

ECS Project No: 09-18602A

Revised January 2013

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VIII	Emergency Response Contractor Agreement o Contract

LIST OF ATTACHMENTS

Attachment

A	SPCC Plan Revisions
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LIST OF ACRONYMS

AST	-	Aboveground Storage Tank
CFR	-	Code of Federal Regulations
ERC	-	Emergency Response Contractor
FR	-	Federal Register
NCDENR	-	North Carolina Department of Environment and Natural Resources
NFPA	-	National Fire Prevention Association
NRC	-	National Response Center
OSC	-	Oil Spill Contingency
OSHA	-	Occupational Health and Safety Administration
SPCC	-	Spill Prevention Control and Countermeasure
USEPA	-	United States Environmental Protection Agency
UST	-	Underground Storage Tank

1.0 GENERAL INFORMATION

1.1 EMERGENCY PHONE NUMBERS (40 CFR 112.7(a)(3))

FACILITY EMERGENCY NUMBERS

Name	Position	Office	Cell	Home
Dennis Shore	Oil SPCC Coordinator	(336) 758-7295	(336) 462-5772	(336) 769-1971
Stephen Fisenne	Alternate Oil SPCC Coordinator	(336) 758-3089	(336) 830-9394	(704) 540-8881
Michelle Adkins	Alternate Oil SPCC Coordinator	(336) 758-5385	(336) 480-8480	(336) 479-8801
Wake Forest University Office of Environmental, Health and Safety	N/A	(336) 758-7189	N/A	N/A
Wake Forest University Police Department	N/A	911 or (336) 758-7292	N/A	N/A

LOCAL EMERGENCY NUMBERS
(To be contacted as needed)

Winston-Salem Fire Department:	911 or (336) 773-7900
Winston-Salem /Police Department:	911 or (336) 773-7700
Forsyth County Sheriff:	911 or (336) 917-7001
Forsyth County Emergency Management:	(336) 727-2200
Wake Forest University Baptist Medical Center:	(336) 716-2255
Emergency Response Contractor:	Shamrock Environmental Corporation (800) 881-1098 A & D Environmental Services (800) 434-7750
Hazardous Material Information:	CHEMTREC (800) 424-9300
State Emergency Operations Center:	(800) 858-0368
Winston-Salem/Forsyth County Utilities:	(336) 727-8418/ 8:00 a.m. to 5:00 p.m. (336) 765-0130/ after hours
Local Electrical Utility:	Duke Energy (800) 769-3766

STATE & FEDERAL NOTIFICATIONS (40 CFR 112.7(a)(4))
(to be contacted as required)

The United States Environmental Protection Agency (USEPA) National Response Center **NRC - 24-hr number: 800-424-8802**) and the North Carolina Department of Environment and Natural Resources (**NCDENR – 24 hr number: 800-858-0368**) must both be notified in the event of a discharge into a navigable waterway (e.g., drainage ditch, creek, pond, etc.) which:

1. produces a film, sheen, discoloration, or causes a sludge or emulsion to be deposited onto adjacent shorelines, or
2. causes water quality standards to be violated (i.e., any discharge which reaches water).

Additionally, the NCDENR must also be notified of a spill of petroleum products if:

1. The spill is 25 gallons or more (even if spill does not reach a waterway), or
2. The spill occurs 100 feet or less from a surface water body (regardless of the size of the spill), or
3. The spill cannot be cleaned up within 24 hours.

1.2 SPILL RESPONSE PROCEDURES (40 CFR 112.7(a)(5))

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1. Any employee discovering a release must immediately notify the Oil SPCC Coordinator or the Alternate Oil SPCC Coordinators. If these individuals are not accessible, notification should be made to the Wake Forest University Office of Environmental Health and Safety or the Wake Forest University Police Department.
2. Responding personnel, trained in spill response, will assess the hazards of the release, including an identification of the source and amount of released materials. The assessment will be performed using observations and/or review of facility records, manifests and material safety data sheets.
3. Responding personnel will only proceed with spill containment and/or clean-up if they determine response actions will not endanger responders, other employees, or site visitors. Responding personnel will utilize appropriate safety procedures and equipment (e.g., chemical resistant gloves, splash protective goggle, protective clothing).
4. Responding personnel will immediately block access to manholes, storm drains, and other stormwater conduits in the vicinity of, or path of, the release. Storm drains must be covered with drain cover mats or blocked with sorbents.
5. For small spills, responding personnel will utilize spill equipment or absorbent material to clean up the released oil or fuel. Debris will be contained in drums or other appropriate containers. The Oil SPCC Coordinator will be responsible for transportation and disposal of all contaminated materials in accordance with applicable laws and regulations.
6. For larger spills, the Oil SPCC Coordinator will determine if the spill can be handled safely by facility personnel. If necessary, the Oil SPCC Coordinator will mobilize the Emergency Response Contractor.
7. For a release from a tank or transport truck, the piping, hoses, pumps and tank level gauges should be observed to determine if closing valves would stop the spill or leak. If the spill is within a spill containment structure, the structure drain outlet shall be checked to assure that it is closed.
8. If they can safely be performed, reasonable measures to avoid fires, explosions, and further releases shall be executed. These measures may include stopping facility operations, collecting and containing released oil, and removing or isolating problem containers. The hazards associated with the release must be assessed and, if necessary, the area must be evacuated. As applicable, the affected equipment and areas must be monitored for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment.

**SPILL RESPONSE PROCEDURES
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9. Call the fire department (911) and evacuate the site immediately if: the spill cannot be handled safely or contained; surface waters are threatened; there are injuries or the potential for injuries; there is fire or the potential for fires; or the release could endanger the public outside of the facility. Provide the Fire Department with the following information:
 - a. caller's name and the site location
 - b. any injuries
 - c. product involved and approximate volume
 - d. flow stopped or continuing
 - e. danger to potential conduits (drains, sewers, ditches, surface water)
 - f. potential for fire
10. Determine if notification to the State and Federal regulatory authorities is required (Section 1.1). If required, initiate notification procedures. If warranted, call 911 and notify police, fire department, and/or hospital of the incident and possible injuries.
11. Document spill, response and notification (Appendix VII). Take detailed notes, including names, dates and times; and photographs.

1.3 DISCLOSURE STATEMENT

This Spill Prevention Control and Countermeasure (SPCC) Plan and Oil Spill Contingency (OSC) Plan were prepared on behalf of and for the exclusive use Wake Forest University. These Plans pertain to the specific operations at the Wake Forest University Corporate Center located at 1100 Reynolds Boulevard, Winston-Salem, North Carolina and should not be relied upon for the storage of fuels or oils at any other facility. These SPCC and OSC Plans shall not be reproduced in whole or in part without permission from ECS Carolinas, LLP, except for the internal use of Wake Forest University.

1.4 CERTIFICATION (40 CFR 112.3(d))

ECS Carolinas, LLP hereby attests that the provisions of 40 CFR Part 112 are understood, the facility discussed herein has been examined, that this SPCC Plan has been prepared in accordance with good engineering practices including consideration of applicable industry standards, that procedures for required inspections and testing have been established, and that the Plan is adequate for the facility.

P.E. Signature _____

P.E. Name _____

Registration # _____

State _____ Date _____

This certification in no way relieves the owner or operator of the facility of their duty to fully implement this Plan in accordance with the regulations.

1.5 MANAGEMENT APPROVAL (40 CFR 112.7)

This SPCC Plan has the full approval of management and the necessary resources to implement the Plan will be made available. This Plan will be fully implemented as hereinafter described.

Hof Milam _____ Date _____
Senior Vice President & Chief Financial Officer

2.0 INTRODUCTION

2.1 SPCC PLAN REQUIREMENTS (40 CFR 112.7(a)(1), 112.7(a)(2), and 112.20)

This document contains a Spill Prevention, Control and Countermeasure (SPCC) Plan prepared for the Wake Forest University Corporate Center located at 1100 Reynolds Boulevard, Winston-Salem, North Carolina. The facility location is shown on Figure 1. To achieve compliance with the Oil Pollution Prevention regulations, an Oil Spill Contingency (OSC) Plan for qualified electrical equipment (40 CFR 109) has also been prepared. The OSC Plan is contained in Section 9.0 of this document. This Plan is based on a site visit conducted by ECS personnel on January 4, 2012. This Plan supersedes an SPCC Plan dated July 28, 2012 (ECS Project No. 18602).

The SPCC Plan is a comprehensive written document prepared for an oil storage facility with an aggregate aboveground oil storage capacity exceeding 1,320 gallons. The aggregate capacity applies to aboveground containers with capacities of 55 gallons or greater. Tanks that are bunkered, partially buried, or within below ground vaults are considered to be aboveground storage tanks subject to the SPCC Plan requirements. The aboveground storage capacity includes non-transportation related tanker trucks used as portable fueling facilities. The storage capacity excludes containers that are "permanently closed". Permanently closed means that all liquids and sludges have been removed from the container and lines; all connecting lines and pipes have been disconnected and blanked off; all valves (except ventilation valves) have been closed and locked; and, a conspicuous sign stating that the container is closed, along with the date of closure, has been posted on the container. Underground storage tanks (USTs) that are subject to the technical requirements of the Code of Federal Regulations, Title 40, Part 280 (40 CFR Part 280) or an approved State program, wastewater treatment units, and onboard storage tanks used to power motor vehicles are exempt from the SPCC requirements.

The purpose of the SPCC Plan is to establish methods, procedures and equipment requirements to prevent the discharge of oil from non-transportation related onshore and offshore facilities into United States navigable waters or upon adjoining shorelines, and to contain such discharges when and where they occur. Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil. "Navigable waters" may include any waters used for interstate and foreign commerce; waters used for industrial or recreational purposes; and any tributaries, creeks, lakes, ponds, impoundments, or wetlands that lead to waters for commerce, industrial or recreational use. Navigable waters also include any storm sewer or other conveyance that leads to navigable waters.

As the Wake Forest University Corporate Center does not transfer oil over water and has a total oil storage capacity less than 1,000,000 gallons, the facility is not reasonably expected to cause substantial harm to the environment through discharge into or on navigable waterways or adjoining shorelines. Therefore, this facility is not required to submit a facility specific Response Plan to EPA. The required certification that the facility does not pose substantial harm is included in Appendix II. The facility operator must sign this form.

These Plans have been prepared to meet the requirements of the Oil Pollution Prevention regulations (40 CFR Part 112). The Plans also meet State oil pollution prevention requirements

regarding oil storage and spill reporting. The SPCC Plan achieves compliance by methods specified in the regulations. Alternate methods to achieve equivalent environmental protection were not incorporated into this SPCC Plan.

Specific requirements of the Oil Pollution Prevention regulations and applicable sections of the SPCC Plan are identified in the following table.

REGULATIONS AND SPCC PLAN CROSS-REFERENCE TABLE WAKE FOREST UNIVERSITY CORPORATE CENTER SPCC PLAN		
REGULATION SECTION (40 CFR)	REQUIREMENT	SPCC PLAN SECTION(S)
112.7	Management Approval	Section 1.5
112.7	Deficiencies With Requirements	Section 10
112.7(a)(1)	Discussion Of Conformance	Section 2.1
112.7(a)(2)	Deviations From Requirements	Section 2.1
112.7(a)(3)	Physical Layout, Diagram	Section 3 and Figure 2
112.7(a)(3)	Type Of Oil	Section 3.1.4
112.7(a)(3)	Discharge Prevention Methods	Section 3.2
112.7(a)(3)	Drainage Controls, Secondary Containment	Section 3.2
112.7(a)(3)	Countermeasures/Clean-Up Procedures	Section 1.2
112.7(a)(3)	Disposal Of Recovered Materials	Section 1.2
112.7(a)(3)	Contact List (Federal/State/Contractors)	Section 1.1
112.7(a)(4)	Spill Reporting Information	Sections 1.1 and 8.1
112.7(a)(5)	Response Procedures	Section 1.2
112.7(b)	Potential Releases	Section 3.4
112.7(c)	Secondary Containment	Section 3.2
112.7(d)	Contingency Planning for Bulk Storage Containers	Not Applicable
112.7(e)	Inspections, Tests and Records	Section 5
112.7(f)	Personnel Training	Section 7
112.7(g)	Security	Section 6
112.7(h)(1)	Containment For Trucks	Sections 3.2.2 and 4.2
112.7(h)(2)	Interlocked Systems Or Chocks	Section 4.2
112.7(h)(3)	Inspect Vehicles Prior To Departure	Section 4.2
112.7(i)	Brittle Fracture Evaluation	Not Applicable
112.7(j)	Conformance With State Regulations	Section 2.1
112.7(k)	Qualified Oil Filled Equipment Alternate Requirements and Contingency Planning	Sections 3.2.1. and 9
112.8(a)	Comply with 112.7 and containment procedures	Sections 1 to 8 and 10
112.8(b)(1)	Valves for Dikes	Section 3.2.1
112.8(b)(2)	Type of Dike Valves	Sections 3.2.1

112.8(b)(3)	Provide Retention (ponds, lagoons, catchment basins) for Undiked Potential Discharges (such as from piping)	Not Applicable
112.8(b)(4)	If Retention is not Available, Provide Retention in Drainage Ditches	Not Applicable
112.8(b)(5)	Continuous Treatment	Not Applicable
112.8(c)(1)	Compatible Materials	Section 3.1.4
112.8(c)(2)	Containment	Section 3.2.1
112.8(c)(3)	Inspect Discharged Stormwater/Manually Discharge/Record	Section 4.1
112.8(c)(4)	Buried Tanks	Section 5.1
112.8(c)(5)	Bunkered Tanks	Not Applicable
112.8(c)(6)	Integrity Testing	Sections 5.1
112.8(c)(7)	Heating Coils	Section 3.1.4
112.8(c)(8)	Instrumentation and Gauges	Section 3.3
112.8(c)(9)	Effluent Treatment	Not Applicable
112.8(c)(10)	Correct Visible Discharges	Section 5.2
112.8(c)(11)	Secondary Containment for Mobile Facilities	Not Applicable
112.8(d)(1)	Buried Piping	Section 3.2.3
112.8(d)(2)	Out of Service Piping	Section 3.2.3
112.8(d)(3)	Pipe Supports	Section 3.2.3
112.8(d)(4)	Above-Ground Inspections	Section 5
112.8(d)(5)	Vehicle Warning	Not Applicable
112.20	Facility Response Plans/Certification of Substantial Harm	Section 2.1

2.2 AVAILABILITY AND SUBMITTAL (40 CFR 112.3(e))

The facility is required to keep the SPCC Plan, with all appropriate records, addendum and appendices, on file at the site and it must be available on-site during normal working hours for review by the USEPA Regional Administrator or his designated representative. The SPCC Plan must be easily accessible in the event of an emergency. Copies of the SPCC Plan will be kept in the Wake Forest University Corporate Center security office and the Wake Forest University Office of Environmental Health and Safety.

2.3 PLAN REVIEW (40 CFR 112.5(b))

The SPCC Plan must be reviewed at least every five years . The reviewer must document the review (Appendix III). Additionally, the Plan must be revised whenever there is a change in facility design, construction, operation or maintenance that materially affects the facility's potential for the discharge of oil. Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. Self-certification of a revised SPCC Plan is possible; however, a Professional Engineer must certify technical amendments to the SPCC Plan. Revisions to the SPCC or OSC Plans must be documented and maintained and placed in Attachment A of this document.

3.0 FACILITY INFORMATION

3.1 GENERAL FACILITY DESCRIPTION

3.1.1 Facility Information and Personnel (40 CFR 112.7(f))

Facility Name: Wake Forest University

Facility Address: 1100 Reynolds Boulevard
 Winston-Salem, NC 27106

Telephone: Office of Environmental Health and Safety
 (336) 758-7189

The facility personnel responsible for oil spill prevention and implementation of the SPCC Plan are as follows:

NAME AND POSITION	PHONE NUMBER	RESPONSIBILITY
Hof Milam, Senior Vice President & CFO	(336) 758-7415 (office)	Commitment of corporate resources to the Plan Overall Plan Implementation
Kenneth A. Basch Executive Director, Real Estate	(336)759-1000 (office) (336) 406-9196 (cell)	
Dennis Shore, Oil SPCC Coordinator	(336) 758-7295 (office) (336) 462-5772 (cell)	Overall SPCC Plan Implementation Inspections Spill prevention and response including: Release assessment Direction of response actions Emergency response contractors contact Spill response documentation Corrective measures Monitor workers for proper procedures Cleanup small spills and residues
Stephen Fisenne, Alternate SPCC Coordinator	(336) 830-9394 (cell)	Plan Review and Updates Regulatory Submissions Training of facility personnel Regulatory notification Disposal of residues Spill response training
Personnel	N/A	Employ proper procedures to prevent spills Perform daily observations for leaks, spills or equipment problems Notify Supervisor Of Any Spills

3.1.2 Facility Operations

Wake Forest University owns and operates the University Corporate Center located at 1100 Reynolds Boulevard in Winston-Salem, North Carolina (Figure 1). The site contains an office building (approximately 500,000 square feet), employee parking lots, and associated utilities and outbuildings (Figure 2). Wake Forest University staff uses part of the office building, and the remaining space is leased to AON and Pepsi.

3.1.3 Facility Drainage

The site drains by overland flow and subsurface piping to an unnamed tributary to Silas Creek.

3.1.4 Oil Storage Containers (40 CFR 112.7(a)(3) and 112.8(c)(1), (2), (4), (5) and (7))

At the Wake Forest University Corporate Center, diesel fuel and oils are stored in two emergency generator aboveground storage tanks, two transformers, three underground storage tanks (USTs), day tanks, a trash compactor, and a grease trap (Figure 2).

One 10,000 gallon heating oil UST is owned and operated by Wake Forest University. This UST contains fuel oil used by boilers that heat the premises. Tanks storing heating oil for consumptive use on the premises where stored are not subject to the Federal (Code of Federal Regulations, Title 40, Part 280) and State (North Carolina Administration Code, Subchapter 2N, Sections .0100 to .0900) criteria and standards applicable to underground storage tanks, as administered by the North Carolina Department of Environment and Natural Resources. USTs not subject to the technical requirements of the underground storage tank regulations are subject to SPCC Plan requirements. This tank will, therefore, be addressed by the SPCC Plan.

Pepsi owns and operates two-diesel fuel USTs and day tanks located at the site. Since these units are not under the control of Wake Forest University, they are not considered part of that facility with respect to this SPCC Plan. Further, the day tanks are not subject to Oil Spill Regulations as they have a capacity less than 55 gallons. Therefore, the Pepsi USTs and day tanks will not be addressed by this SPCC Plan. In the event of a release from the Pepsi USTs or day tanks, Wake Forest personnel will attempt to contain the release, using properly trained employees, while immediately notifying Pepsi.

The trash compactor hydraulic system has a maximum capacity of 25 gallons of hydraulic fluid. Based on storage capacity, this container is exempt from SPCC requirements. The facility grease traps are also exempt from SPCC requirements, based on the specific exemption for wastewater treatment units.

The containers located on this site with a capacity exceeding 55 gallons, are listed in the following table and identified on Figure 2. The ASTs located at this facility do not contain internal heating coils. The Wake Forest containers addressed by this plan appear to be constructed of steel, compatible with the materials they contain, and appropriate for the conditions of storage.

Area	Item	Capacity	Contents
Kohler Emergency Generator Sub-Base Fuel Tank	1	895 gallons	Diesel Fuel
MTU Emergency Generator Sub-Base Fuel Tank	2	2,000 gallons	Diesel Fuel
Wake Forest University UST	3	10,000 gallons	Heating Oil
Transformer	4	472 gallons	Mineral Oil
Transformer	5	472 gallons	Mineral Oil
Pepsi UST*	6	6,000 gallons	Diesel Fuel
Pepsi UST*	7	6,000 gallons	Diesel Fuel

*Not addressed by this SPCC Plan as discussed above.

3.2 CONTAINMENT AND DIVERSIONARY STRUCTURES (40 CFR 112.7(c), 112.8(b) and 112.8 (c)(2))

3.2.1 Oil Storage Areas (40 CFR 112.7(c), 112.8(b)(1), 112.8(b)(2), 112.8(b)(3), 112.8(b)(4) and 112.8(c)(2))

The oil pollution prevention regulations require a secondary means of containment for the contents of the largest single tank or container and sufficient freeboard for precipitation. Although the regulations do not set a standard for sufficient freeboard for outdoor areas, the EPA recommends using a 25-year storm event (FR V67, No. 137, pg., 47117). For the sitelocation, a 25-year storm event is approximately six inches.

Secondary containment must be sufficiently impervious to contain oil until it is cleaned up. The National Fire Prevention Association requirements (NFPA 30) and Occupational Health and Safety Administration (OSHA) regulations (29 CFR Part 1910.106) require dikes be constructed of earth, steel, concrete, or solid masonry; and be designed to be liquid tight and to withstand a full hydrostatic head. When flammable or combustible materials are stored in tanks located within a dike, OSHA prohibits the presence of loose combustible material, empty or full drums or barrels within the diked area (29 CFR 1910.106(b)(2)(vii)(c)(6)).

Oil spill regulations require secondary containment drainage valves be manually operated and locked in a closed position. Flapper-type valves are not allowed. The oil spill regulations (40 CFR 112.8(b)(1)) require manual activation of pumps in diked areas to allow inspection of stormwater prior to discharge, and prevent the discharge of oil.

A discussion of the available containment and compliance status of each Wake Forest University regulated oil storage container follows.

3.2.1.a Emergency Generator

Both the Kohler and MTU emergency generator sub-base tanks are U L designed, steel, double-walled tanks, each installed with a five-gallon overfill spill containment bucket. The USEPA has accepted shop built double-walled tanks as an equivalent preventative system of secondary containment, provided the tanks are designed in accordance with nationally accepted industry standards; the tanks have overfill prevention measures that include an overfill alarm and an automatic flow restrictor or flow shutoff; and all product transfers are continuously monitored.

The Kohler emergency generator has a tank plate that indicates the tank system provides containment for 119 percent of the tank contents. Based on design, the MTU emergency generator will contain a minimum of one hundred percent of the contents of the inner tank. Both the MTU and Kohler tank systems have audible high level liquid alarms, audible rupture basin alarms, and direct read gauges.

The MTU emergency generator tank has an automatic flow shutoff device. For the Kohler emergency generator tank, the requirement for automatic flow shutoff will be met provided fuel is transferred with a dispensing nozzle that has an automatic shut-off. A dispensing nozzle with an automatic shut-off will terminate product flow when liquid in the tank reaches a height that covers a hole in the dispensing nozzle sensing port. Based on tank filling procedures, both facility and delivery personnel will be present to immediately halt fuel transfer if the high level alarm sounds. Both tank systems, therefore, provide adequate containment.

3.2.1.b Transformers

The transformers are installed on concrete pads. They are located in a walled structure that has a roof that prevents the introduction of precipitation. The floor of the structure is comprised of gravel placed over soil. Based on the height of the doorway and the structure dimensions, the containment area is approximately 25 feet by 15 feet by 3.5 feet or about 9,800 gallons. The structure has sufficient capacity for the contents of the transformers and six inches of precipitation. The earthen floor is permeable, however, so a release in this area would be expected to infiltrate to the subsurface.

For oil filled operational equipment such as transformers, the oil spill regulations provide an alternative to providing secondary equipment. The facility may instead implement an inspection and monitoring program, develop an oil spill contingency plan, and provide a written commitment of resources to control and remove discharged oil. Oil filled operational equipment is eligible for this provision if during the past three years, releases from the equipment during any twelve month period, meet the following criteria: (1) no releases that reach navigable waters of more than 1,000 gallons in a single discharge or (2) no more than two discharges exceeding 42 gallons that reach navigable waters. This facility has not had any releases of oil. Based on this release history, the facility has the option to develop an oil spill contingency plan to address secondary containment for the transformers.

The earthen floor is likely sufficiently impervious to contain oil until cleanup occurs, without allowing a discharge to navigable waters or shorelines. However, since soil characteristics, compaction data, and possible subsurface conduits have not been studied, it has been decided

to address potential releases from the transformers through implementation of an Oil Spill Contingency Plan.

3.2.1.c 10,000 Gallon Heating Oil UST

The facility has one 10,000 gallon underground storage tank used to store heating oil. This tank is a single-walled fiberglass reinforced steel tank with underground single-walled steel piping. The tank was installed in 1986. A release from the tank system or piping would be contained within the subsurface. This would meet SPCC regulations by preventing a release to surface waters, although ground water might be impacted. Containment is adequate.

3.2.2 Unloading Areas (40 CFR 112.7 (b), (c), (h))

The unloading area for each container is a transfer area without loading racks. The applicable containment requirements specify addressing the likely discharge route. Containment for a tanker truck compartment is not necessarily required, as a catastrophic truck failure is not deemed particularly likely. The emergency generators and 10,000 gallon UST are filled from commercial transport trucks. The likely potential release during diesel fuel or heating oil delivery would be a hose break. Based on a maximum pump rate of 35 gallons per minute and an expected time of 30 seconds to one minute to shut down the pump, containment for a pumped volume of up to 35 gallons and a maximum of 10 gallons from the hose (total of 45 gallons) would be required in the event of a release.

Based on the slope of the area, a release during fueling of the emergency generator ASTs or heating oil UST might enter a nearby catch basin. To contain oil potentially released during fueling of the emergency AST, the storm drain located downgradient of those areas must be covered or blocked prior to the transfer of fuel. It is recommended either a drain cover mat, or flexible spill berm made of an impervious material that bonds to concrete be placed over the downgradient storm drain prior to fuel transfer. Spill containment equipment including sorbent pads, socks, or pillows, and protective equipment are stored in the spill control kit located in the cage at the loading dock at the Wake Forest University Corporate Center.

Generally, oil is not added to or removed from the transformers. In the event that oil is to be transferred to or from a transformer, spill containment equipment including sorbent pads, socks, or pillows, and protective equipment should be present.

3.2.3 Piping and Facility Transfer Operations (40 CFR 112.7(c) and 112.8(d))

The regulations require secondary containment or diversionary structures (e.g., ditches) be constructed to prevent potential releases of oil from piping. Aboveground piping must have properly designed pipe supports. Any piping that is installed and subsequently taken out of service must be capped or blank-flanged and marked out of service.

The regulations require that buried piping installed or replaced after August 16, 2002 be provided with protective wrapping and coating, and corrosion protection (e.g, cathodic) meeting the standards of 40 CFR 280 or 281. Additionally, if a section of buried line is exposed for any reason, it must be carefully inspected for deterioration. If deterioration is present, the piping must be replaced with new underground piping that has the proper corrosion protection or with above

ground piping. Any newly installed, modified, constructed, relocated or replaced underground piping will require integrity and leak testing at the time of installation.

There is no aboveground piping associated with the Wake Forest University oil containers subject to SPCC requirements. The underground piping associated with the Wake Forest University heating oil UST is reported to be single-walled steel pipe with a protective coating. A release from the tank system or piping would be contained within the subsurface. This would meet SPCC regulations by preventing a release to surface waters, although ground water might be impacted. Containment for the underground piping is adequate.

3.3 ALARMS AND GAUGES (40 CFR 112.8(c)(8))

The oil pollution prevention regulations (40 CFR 112) require each bulk storage container be provided with at least one of the following:

- 1) high liquid level alarms with audible or visual signal at a constantly attended station;
- 2) a high liquid level pump cutoff device set to stop flow at a predetermined container content level;
- 3) a direct audible or code signal between the container gauger and the pumping station;
- 4) a fast response system for determining the liquid level, such as computer, telepulse or direct read gauge.

The emergency generator diesel fuel ASTs are double-walled tanks. According to USEPA guidance (OSWER 9360.8-38), a shop-built double-walled AST will meet secondary containment requirements if required protective measures are installed. These provisions require overfill prevention measures that include both an overfill alarm and an automatic flow restrictor or flow shut-off, and constant monitoring of product transfers.

The Kohler emergency generator AST has a high level alarm with an audible signal at the container. While the AST does have a direct read gauge, the location of the gauge is somewhat inaccessible, and might be difficult to continuously monitor during filling. The requirement for automatic flow shutoff will be met provided fuel is transferred to the emergency generator AST with a dispensing nozzle that has an automatic shut-off. A dispensing nozzle with automatic shut-off will terminate product flow when liquid in the tank reaches a height that covers a hole in the dispensing nozzle sensing port. Based on tank filling procedures, both facility and delivery personnel will be present to immediately halt fuel transfer if the high level alarms sounds. This tank system, therefore, contains adequate alarms and gauges.

The MTU emergency generator AST has a direct read gauge, which is located in the vicinity of the fillport. This tank also has a high level alarm with an audible signal at the container and an installed automatic flow shutoff device. This tank system, therefore, contains adequate alarms and gauges.

The 10,000-gallon underground storage tank has a Veeder Root automatic tank gauging system. The alarm panel is located in the boilerhouse. The system has audible and visual high level alarms, but you must be present in the boilerhouse to hear or see the alarm. Provided personnel with communication capability (e.g, radios or cellphones) are present at the Veeder Root control panel during the entire UST filling operation, this high level alarm will meet the requirement for alarms and gauges.

EPA does not consider oil-filled electrical, operating or manufacturing equipment to be bulk storage containers. The requirements for alarms and gauges are, therefore, not applicable to the transformers.

3.4 POTENTIAL RELEASES (40 CFR 112.7(a)(5)(b))

SPCC Plans must include a prediction of the direction, rate of flow, and total quantity of oil that could be discharged as a result of each major type of failure. An evaluation of potential releases from each bulk storage container follows.

Potential Release Event	Spill Direction	Volume Released	Spill Rate
Release from the emergency generator ASTs	Southwest to an unnamed tributary to Silas Creek	Several gallons up to a maximum of 2,000 gallons	Less than 1 gallon per minute for minor leaks to instantaneous for catastrophic releases.
Release from a truck delivering diesel fuel to the emergency generator ASTs	Southwest to an unnamed tributary to Silas Creek	Several gallons up to 1,500 gallons (expected maximum truck compartment capacity). Likely release would be a hose rupture with a volume of 45 gallons.	Less than 1 gallon per minute for minor leaks to instantaneous for catastrophic releases
Release from a transformer	Southwest to an unnamed tributary to Silas Creek	Several gallons up to a maximum of 472 gallons	Less than 1 gallon per minute for minor leaks to instantaneous for catastrophic releases
Release from the 10,000 gallon heating oil UST	To subsurface	Several gallons up to 10,000 gallons	Less than 1 gallon per minute for minor leaks to many gallons per minute for catastrophic releases
Release from a truck delivering heating oil to the UST	Southwest to an unnamed tributary to Silas Creek	Several gallons up to 1,500 gallons (expected maximum truck compartment capacity). Likely release would be a hose rupture with a volume of 45 gallons.	Less than 1 gallon per minute for minor leaks to instantaneous for catastrophic releases

4.0 OPERATING PROCEDURES

4.1 CONTAINMENT AREA DRAINAGE (40 CFR 112.8(b)(2) and 112.8(c)(3))

Following precipitation events, containment areas must be inspected for water. At the Wake Forest University Corporate Center, containment structures are not expected to be exposed to precipitation. In the event of an unexpected leak resulting in the presence of rainwater in a containment area, the procedure for containment area drainage is as follows:

1. The Oil SPCC Coordinator or designated representative must visually observe standing water for evidence of oil, sheen, color, or foam and determine if water may be drained.
2. If evidence of contamination is not observed, the drainage valve (if present) may be unlocked and the water may be drained, or the water may be pumped out.
3. If evidence of contamination is observed, inspect the tanks, containers and/or equipment for leaks. Estimate the quantity of water to be discharged. Obtain a water sample if necessary. Arrange for proper disposal of the water.
4. Close and lock the drainage valve (if present) after drainage is completed.
5. Document visual inspection and water removal on forms contained in Appendix IV.

4.2 LOADING/UNLOADING (40 CFR 112.7(a)(3)(ii) and (h))

Tank truck loading and unloading procedures must meet the requirements of the State and Federal Departments of Transportation (DOT). The following procedures for loading/unloading bulk product shall be followed:

1. Prior to a transfer hose connection being made, the Oil SPCC Coordinator or designated representative must verify the amount of product a tank can accept.
2. Prior to any oil transfer, confirm spill containment equipment is readily accessible.
3. Check that the delivery tank truck has the engine turned off, parking brake set, wheels chocked, and is grounded, as needed. Closely inspect for discharges from the lowermost drain, and all outlets on the truck. Open the vents on the delivery/collection tank truck to provide proper venting during withdrawal.
4. When delivering or removing oil to the emergency generator ASTs or heating oil UST, cover the storm drain located downslope from the unloading area with a drain cover mat or spill berm.
5. The operator must constantly attend the unloading operations and must immediately stop the pump if visual inspection, level indicators, or automatic shut-offs indicate that the tank is full, or if a leak, overflow, or other suspect condition occurs.

6. When unloading fuel from a transport truck, immediately check that the hose connections are not leaking, that product is being delivered to the proper tank and that there are no leaks in the system.
7. After unloading, verify the volume delivered. Sufficient space must be left in the tanks to allow for volumetric changes due to product temperature increases.
8. Disconnect hoses, remove chock blocks, ground cable and static electricity connections, if any. Check drains, outlets and vents on truck prior to departure.
9. Minor spills or leaks shall be cleaned up immediately.
10. Immediately report any spills to the Oil SPCC Coordinator or Alternate Oil Spill Coordinators.

Wheel chocks must be used. If wheel chocks are not used, the facility must have an interlocked warning light or physical barrier system, warning signs, or a vehicle brake interlock system to prevent trucks from leaving without properly disconnecting from the tank.

5.0 INSPECTIONS AND RECORD KEEPING

5.1 INTEGRITY TESTING (40 CFR 112.7(d), 112.8(c)(4), 112.8(c)(5) and 112.8(c)(6))

The oil spill regulations require any completely buried metallic storage tank installed on or after January 10, 1974 have corrosion protection (e.g. coatings or cathodic protection) and be regularly leak tested. This SPCC Plan does not address metallic underground storage tanks. The only underground storage tank at the Wake Forest University Corporate Center subject to the SPCC Plan is the 10,000 gallon heating oil tank, which is constructed of fiberglass reinforced plastic.

Integrity testing of aboveground containers must be conducted on a regular schedule and when material repairs are performed. Integrity testing requires visual inspection and may include a testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other system of non-destructive shell testing. Any newly installed, modified, constructed, relocated or replaced underground piping will require integrity and leak testing at the time of repair or installation. Records documenting integrity testing must be maintained.

Additionally, if a field-constructed tank undergoes repairs, alteration, reconstruction or a change in service, it must be evaluated for risk of discharge due to brittle fracture failure or other catastrophic failure. Activities related to field-constructed tanks will not be applicable, as the facility tanks are not field-constructed.

The EPA allows that integrity testing for "well designed" shop built containers may consist of visual inspection if certain conditions are met. These conditions require that the tank is less than 30,000 gallons; elevated such that all sides, including the bottom, are visible; or the container is isolated from the ground by an adequately designed, maintained and inspected synthetic liner or other barrier that would protect the container from corrosion and ensure that leaks are immediately detected. Such tanks must also have sufficient containment. Well designed tanks should be designed, built and installed pursuant to an industry standard such as American Petroleum Institute (API) Standard 653 and Standard 650, Steel Tank Institute (STI) Standard SP001 and Underwriters Laboratory (UL) Publication 142. Supports for elevated containers should be compatible with the container to prevent corrosion due to dissimilar materials (e.g., steel tank with iron supports).

The Kohler and MTU emergency generator ASTs are shop-built, UL designed, double-walled tank systems, located on concrete pads. Double-walled tanks do not require integrity testing, if the tank system allows inspection of the interstitial space. These tank systems provide for continuous inspection, as they each have a rupture alarm that will be triggered if there is liquid in the interstitial space. As the tanks are visible from all sides and isolated from the ground, integrity testing for the emergency generator tanks will consist of documented monthly visual inspections performed by facility personnel.

Oil-filled electrical equipment (i.e., transformers) and underground storage tanks are not subject to testing using an integrity testing technique, and will only require documented monthly inspections.

5.2 DAILY OBSERVATIONS (40 CFR 112.7(e))

The generator ASTs, the heating oil UST, and the transformers will be observed by security personnel on a daily basis. Any indications of released oil or fuel must be reported to the Oil SPCC Coordinator. Visible oil leaks, which result from seams, gaskets, rivets, bolts or other connections, must be promptly corrected.

5.3 MONTHLY INSPECTIONS (40 CFR 112.7(e) and 112.8(c)(6) and (d)(4))

Inspections of the emergency generator ASTs, the heating oil UST and the transformers must be conducted monthly and documented. An Inspection Form included in Appendix V may be used for inspection documentation. Completed forms must be appended to this SPCC Plan. The records must be maintained for three years. The inspections and reports are the responsibility of the Oil SPCC Coordinator or a designated representative. Any problems noted during inspections must be immediately corrected.

Since the UST cannot be visually inspected, inspection of that tank will require leak testing. As required by 40 CFR 280, leak detection for USTs can be accomplished by use of: an automatic tank gauging system, secondary containment and interstitial monitoring, vapor monitoring, groundwater monitoring, or statistical inventory reconciliation. The automatic gauging system used for leak testing must be able to detect a leak of 0.2 gallons per hour when a test is run. For each test, the tank must be taken out of service and the product level and temperature must be measured for at least one hour.

The heating oil UST has a Veeder Root automatic tank gauging system. The fuel in the heating oil UST is used only as an emergency fuel source. Therefore, the quantity of fuel in the tank does not often change. Thus, instead of running a test mode, comparison of fuel levels over twenty-four hours should adequately serve as a leak test, provided that the tank is not in use during that period of time.

Monthly inspections shall include the following:

1. A visual appraisal of the general condition of the emergency generator tanks, underground storage tank and ancillary equipment, and the transformers. Observations should be made for signs of warping, corrosion, discoloration, drip marks or other conditions indicative of potential problems.
2. Testing of the emergency generator alarms (high level and interstitial space alarm). Leak testing and calibration (as required by the manufacturer) of the UST automatic gauging system.
3. A visual appraisal of the area surrounding the oil storage containers observing for settlement, cracks, corrosion, deterioration at joints, stains indicative of spills and other signs that water and/or product is present.
4. Observation for proper security measures including fences, lights, locked valves and cameras.

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5. An inspection and inventory of emergency spill supplies for proper storage and quantities. Deficient supplies shall be restocked or replaced as necessary.

6.0 SECURITY (40 CFR 112.7(g))

6.1 GENERAL

The transformers are located within a locked area. While the emergency generators and underground storage tank are not located within a fenced area, the entire facility is monitored by security twenty-four hours per day, seven days per week.

6.2 ACCESS PORTS AND VALVES

The facility must provide locks for any valves that can allow direct discharge under gravity conditions, including drainage valves from containment structures. Pump starter controls should be locked in the off position when not in use and the controls should be in an area that is only accessible to authorized personnel. Loading/unloading connections should be securely capped when not used. Pipes shall be blank-flanged if not in service for an extended period of time.

The emergency generators and UST fill ports are located within spill containment buckets. Since these containers are not located in a fenced area, either the buckets or the fill port caps must be kept locked, except when being accessed. All controls associated with the emergency generator are located within a locked cabinet. The emergency generator interstitial space has a basin drain that can only be removed with special tools. The transformer reservoirs are located in a locked cabinet within a locked area.

6.3 LIGHTING

The facility has adequate lighting throughout to assist in the discovery of discharges during darkness and prevent discharges from acts of vandalism. Specifically, there is lighting located in the vicinity of the emergency generator, heating oil UST and the transformers. Additionally, there is a monitored security camera located adjacent to the entrance to the transformer area and in other areas throughout the facility.

7.0 PERSONNEL TRAINING FOR SPILL PREVENTION PROCEDURES (40 CFR 112.7(f))

7.1 REQUIREMENTS AND FREQUENCY

All facility personnel with oil-handling or related responsibilities must be trained in spill prevention, recognition, and response. All personnel handling oil or fuel transferring equipment must be properly instructed on the operations and maintenance of equipment in order to prevent oil discharges. New personnel or personnel whose responsibilities change must be trained upon their hiring/repositioning at the facility and shall not be allowed to work unsupervised in areas where spills can occur until they receive such training. Facility personnel must receive annual refresher training. Additional training must be provided to address operational modifications, malfunctioning equipment and recent spills. Instruction and training will be the responsibility of the Oil SPCC Coordinator or designated representative. Documentation of each training session must be maintained within this Plan for a period of three years (Appendix VI).

7.2 SPECIFIC TRAINING

Personnel shall be instructed as to:

1. The contents of the facility SPCC and OSC Plan.
2. The product hazards and the effects of the products on human health and the environment.
3. The responsibility of each person to prevent spills.
4. Applicable pollution control laws, rules and regulations.
5. Specific precautions for each area of operation.
6. Operation of associated equipment.
7. Product transfer procedures.
8. Initial response to spills; understanding potential hazards associated with the released material; and the location and use of spill control, containment, and protective equipment.
9. Reporting of all spills to the Oil SPCC Coordinator.
10. Past spill cases at the facility, if any, including the cause and response.
11. Recently developed precautionary measures.

8.0 SPILL RESPONSE AND REPORTING (40 CFR 112.4)

8.1 SPILL RESPONSE, NOTIFICATION AND DOCUMENTATION PROCEDURES

Facility spill response procedures, emergency contacts, and state and federal notification procedures are described Section 1.0 of this plan.

The Oil SPCC Coordinator will document any release by filling out the Release Report Form contained in Appendix VII. Copies of spill reports must be appended to this SPCC Plan. Small spills not impacting the environment may not require documentation to the degree listed in this section. The Oil SPCC Coordinator must maintain all manifest and disposal documents for any product or contaminated material removed from the facility.

Submission of the SPCC Plan to the USEPA and further reporting will be required when either of the following conditions is met:

1. A facility has discharged more than 1,000 gallons of oil in a single event into or upon navigable waterways or adjoining shorelines.
2. A facility has discharged 42 gallons or more of oil into or upon navigable waterways or adjoining shorelines in two reportable spill events within any 12-month period.

If the facility meets the above criteria, it must submit the following information within 60 days to the USEPA Regional Office:

1. Facility name and location.
2. The reporting person's name
3. Maximum storage and handling capacity of the facility and normal daily throughput.
4. Facility description including plans, drainage diagrams and topographic maps.
5. The cause of the release(s) and any failure analyses.
6. Descriptions of corrective actions, countermeasures, remedial actions, repairs and replacements.
7. Additional measures taken or proposed to prevent further occurrences of similar releases.
8. Any other requested information.

8.2 SPILL CONTAINMENT EQUIPMENT

The facility must maintain adequate supplies for the clean up of minor spills and initial containment of larger releases. In the event of a release, facility employees must initiate containment activities. To appropriately perform these activities, spill response equipment consisting of protective equipment and loose sorbents, absorbent socks, pillows, or pads must be maintained.

Spill response equipment is stored in a spill control kit located in the cage at the Wake Forest University Corporate Center loading dock. Also located in the spill control kit are drain cover mats or flexible spill berms, used during tank filling events to cover the stormwater drain located downslope from the emergency generator ASTB and heating oil UST.

9.0 OIL SPILL CONTINGENCY PLAN

9.1 INTRODUCTION

The following Oil Spill Contingency Plan compiles information from the SPCC Plan into a format that addresses the requirements of 40 CFR 109. Since the Contingency Plan may be used separately from the SPCC Plan, it repeats information in that Plan.

9.2 PURPOSE

Wake Forest University owns and operates the University Corporate Center located at 1100 Reynolds Boulevard in Winton-Salem, North Carolina (Figure 1). The site contains an office building (approximately 500,000 square feet), employee parking lots, and associated utilities and outbuildings (Figure 2). Wake Forest University staff uses part of the office building, and the remaining space is leased to AON and Pepsi. The site drains by overland flow and subsurface piping to an unnamed tributary to Silas Creek.

At the Wake Forest University Corporate Center, diesel fuel and oils are stored in two emergency generator aboveground storage tanks, two transformers, three underground storage tanks, day tanks, a trash compactor, and grease traps (Figure 2).

The transformers are located in an area that appears to provide sufficient containment for the contents of the transformers and six inches of precipitation. Based on the height of the doorway and the structure dimensions, the containment area is approximately 25 feet by 15 feet by 3.5 feet or about 9,800 gallons. This area has an earthen floor that is likely sufficiently impervious to contain oil until cleanup occurs, without allowing a discharge to navigable waters or shorelines. However, since soil characteristics, compaction data, and possible subsurface conduits have not been studied, it has been decided to address potential releases from the transformers through implementation of an Oil Spill Contingency Plan.

For qualified oil-filled operational equipment, oil spill regulations, codified in 40 CFR 112.7(k), allow owners and operators to provide an Oil Spill Contingency Plan instead of secondary containment. The transformers each contain an oil storage container in which the oil is present solely to support the function of the unit. These containers would, therefore, be considered oil-filled operational equipment according to oil spill regulations contained in the Code of Federal Regulations, Title 40, Part 112 (40 CFR 112).

The contingency plan which must be prepared following the provisions of CFR Title 40, Part 109, must include a written commitment of manpower, equipment and materials required to expeditiously control and remove discharged oil.

Equipment is eligible for this provision, provided the discharge history of the oil-filled operational equipment does not exceed the following releases:

1. A single discharge of oil to navigable waters exceeding 1,000 U.S. gallons, or
2. Two discharges of oil to navigable waters each exceeding 42 U.S. gallons within any twelve-month period during the prior three years.

This facility has not had any releases of oil. Based on this release history, the facility has the option to develop an oil spill contingency to address secondary containment for the transformers.

9.3 EMERGENCY RESPONSE

9.3.1 Facility Emergency Numbers

In the event of a release from a transformer, the employee discovering the release must immediately notify the Oil SPCC Response Coordinator or the Alternate Oil SPCC Response Coordinators. If these individuals are not accessible, notification should be made to the Wake Forest University Office of Environmental Health and Safety or the Wake Forest University Police Department.

Name	Position	Office	Cell	Home
Dennis Shore	Oil SPCC Coordinator	(336) 758-7295	(336) 462-5772	(336) 769-1971
Stephen Fisenne	Alternate Oil SPCC Coordinator	(336) 830-9394	(336) 830-9394	(336) 830-9394
Michelle Adkins	Alternate Oil SPCC Coordinator	(336) 480-8480	(336) 480-8480	(336) 480-8480
Wake Forest University Environmental, Health and Safety Department	N/A	(336) 758-7189	N/A	N/A
Wake Forest University Police Department	N/A	911 or (336) 758-5911	N/A	N/A

9.3.2 Additional Emergency Numbers

The Response Coordinator will contact any additional resources needed to address an oil release from the transformers. These resources include the following:

Winston-Salem Fire Department: 911 or (336) 773-7900

Winston-Salem /Police Department: 911 or (336) 773-7700

Forsyth County Sheriff: 911 or (336) 917-7001

Forsyth County Emergency Management: (336) 727-2200

**Wake Forest University Baptist
Medical Center:**

(336) 716-2255

Emergency Response Contractor:

Shamrock Environmental Corporation
(800) 881-1098

A & D Environmental Services
(800) 434-7750

Hazardous Material Information:

CHEMTREC
(800) 424-9300

State Emergency Operations Center:

(800) 858-0368

Winston-Salem/Forsyth County Utilities:

(336) 727-8418/ 8:00 a.m. to 5:00 p.m.
(336) 765-0130/ after hours

Local Electrical Utility:

Duke Energy
(800) 769-3766

9.3.3 Emergency Response Procedures

In the event of a release from a transformer, the Response Coordinator will assess the release and deploy Wake Forest University personnel to contain the release, if it is determined response actions will not endanger responders or other employees. Responding personnel will follow procedures contained in the Wake Forest University Corporate Center Spill Prevention Control and Countermeasure Plan including the use of protective equipment. The RC will coordinate emergency response activities by cellphone or radio. The oil discharge response operations center will be located in the Wake Forest University Corporate Center office building.

The Response Coordinator will contact Shamrock Environmental Corporation, the emergency response contractor (ERC), to clean up the released oil. Wake Forest University has contracted with Shamrock to provide response services as needed (Appendix IX).

In the event additional resources are needed (or needed quicker than the emergency response contractor can mobilize), the Response Coordinator will contact the Winston-Salem Fire Department for assistance with containment of released oil. The ERC will then be contacted for clean-up services.

The State of North Carolina operates seven Hazardous Materials Regional Response Teams. These teams may assist in spill containment. The nearest regional response team is located in Greensboro. The decision to call the State Emergency Operations Center would be made by the RC and the Fire Chief.

9.4 RELEASE REPORTING

9.4.1 Verbal Reports

The United States Environmental Protection Agency (USEPA) National Response Center (**NRC - 24-hr number: 800-424-8802**) and the North Carolina Department of Environment and Natural Resources (**NCDENR – 24 hr number: 800-858-0368**) must both be notified in the event of a discharge into a navigable waterway (e.g., drainage ditch, creek, pond, etc.) which:

1. produces a film, sheen, discoloration, or causes a sludge or emulsion to be deposited onto adjacent shorelines, or
2. causes water quality standards to be violated (i.e., any discharge which reaches water).

Additionally, the NCDENR must also be notified of a spill of petroleum products, if:

1. The spill is 25 gallons or more (even if spill does not reach a waterway), or
2. The spill occurs 100 ft or less from a surface water body (regardless of the size of the spill), or
3. The spill cannot be cleaned up within 24 hours.

9.4.2 Written Reports

The Oil SPCC Coordinator will document any release by filling out the Release Report Form contained in Appendix VII of the SPCC Plan. Small releases not impacting the environment may not require documentation to the degree listed in this section. The Oil SPCC Coordinator must maintain all manifest and disposal documents for any product or contaminated material removed from the facility.

Submission of the SPCC Plan to the USEPA and further reporting will be required when either of the following conditions is met:

1. A facility has discharged more than 1,000 gallons of oil in a single event into or upon navigable waterways or adjoining shorelines.
2. A facility has discharged 42 gallons or more of oil into or upon navigable waterways or adjoining shorelines in two reportable spill events within any 12-month period.

9.5 PLAN ACTIVITIES

9.5.1 Inspections

A key component of the Oil Spill Contingency is a provision for release detection and prevention. Security personnel will observe the transformers on a daily basis. A visual external inspection of the transformers will be conducted monthly. The inspections will be documented on forms contained in the facility Spill Prevention Control and Countermeasure Plan. The inspection will consist of a visual evaluation of the condition of each transformer, and the vicinity looking for: drip

marks, discoloration, puddles of spilled or leaked material, corrosion, cracks, settling, presence of vegetation or other damage.

9.5.2 Training

All facility personnel with oil-handling or related responsibilities, including transformer inspections and oil releases response, must be trained in spill prevention, recognition, and response. Facility personnel must receive annual refresher training. Documentation of each training session must be maintained within the SPCC Plan.

Personnel shall be instructed as to:

1. The contents of the facility SPCC Plan.
2. The responsibility of each person to prevent spills.
3. Applicable pollution control laws, rules and regulations.
4. Specific precautions for each area of operation.
5. Operation of associated equipment.
6. Product transfer procedures.
7. Initial response to spills and the location and use of spill control and containment equipment.
8. Reporting of all spills to the facility Safety Officer.
9. Past spill cases at the facility, if any, including the cause and response.
10. Any recently developed precautionary measures.

9.5.3 Release Response Equipment

Each transformer contains 472 gallons of mineral oil. Wake Forest University must maintain adequate supplies for containment of that volume of oil. To adequately implement this plan, Wake Forest University personnel must be trained for containment of oil releases and clean up of minor releases. Clean up of larger releases will be performed by an Emergency Response Contractor as discussed in Section 9.3.3 of this plan. Spill kits containing absorbents and protective equipment are located in the cage at the loading dock of the Wake Forest University Corporate Center.

APPENDIX I

FIGURES

APPENDIX II

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

Certification of Substantial Harm Determination Form

Facility Name: Wake Forest University Corporate Center

Facility Address: 1100 Reynolds Boulevard, Winston-Salem, NC 27105

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfer of oil from vessels?

Yes _____ No X

2. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility without aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?

Yes _____ No X

3. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to an environmentally sensitive area?

Yes _____ No X

4. Does the facility have a maximum storage capacity greater than or equal to one million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake?

Yes _____ No X

5. Does the facility have a maximum storage capacity greater than or equal to one million gallons and, within the past five years, has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons?

Yes _____ No X

CERTIFICATION (To be completed by the facility operator)

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.

Hof Milam
Senior Vice President & Chief Financial Office
(Signature)

Date

APPENDIX III
SPCC PLAN REVIEW DOCUMENTATION

SPCC PLAN REVIEW DOCUMENTATION
Wake Forest University Corporate Center
Winston-Salem, North Carolina

This Plan must be reviewed at least once every five years. Additionally, the Plan must be amended whenever there is a change in facility design, construction, operations, or maintenance which may materially affect the potential for an oil spill or discharge, or if requested by USEPA. Amendments to the Plan must be made within six months of the review and implemented as soon as possible, but no later than six months after the amendment has been prepared.

Item	Response (Yes, No, N/A)	Comments or Action to be Taken
Facility Description and Site Plan Suitable		
Description of Oil Storage in the Plan Suitable		
Personnel Assignment for Plan Implementation Current		
Emergency Contacts and Numbers Current		
Secondary Containment for Tanks Adequate		
Containment for Loading/ Unloading Areas Adequate		
Inspection Procedures and Documentation Adequate		
Testing Procedures and Documentation Adequate		
Dike Drainage Procedures and Documentation Adequate		
Training of Personnel Adequate		
Security Measures Adequate		
Spill Supplies Adequate		

The reviewer must complete the following statement:

"I have completed the review and evaluation of the SPCC Plan for the Mountain Recycling facility located at 1100 Reynolds Boulevard, Winston-Salem, North Carolina on _____ (date), and will (will not) amend the plan as a result.

Signature: _____

Printed Name and Title: _____

APPENDIX IV
CONTAINMENT DRAINAGE DOCUMENTATION

CONTAINMENT DRAINAGE DOCUMENTATION
Wake Forest University Corporate Center
Winston-Salem, North Carolina

Item			
Date			
Amount of stored precipitation			
Oil sheen noted (yes or no)			
Sample obtained (yes or no). If yes, attach laboratory results.			
Drained to ground (yes or no)			
Treated before discharge (yes or no). If yes, describe treatment.			
Removed from site (yes or no)			
If removed by whom			
Drainage valve secure/locked			
Comments			

APPENDIX V
MONTHLY INSPECTION DOCUMENTATION

MONTHLY INSPECTION FORM
Wake Forest University Corporate Center
Winston-Salem, North Carolina
Page 1 of 2

Date: _____

Conducted By: _____

EMERGENCY GENERATOR AST	Kohler Emergency Generator	MTU Emergency Generator	10,000 Gallon UST	Comments
Check condition of emergency generator ASTs and heating oil UST vicinity looking for drip marks, discoloration, puddles of spilled or leaked material , corrosion, cracks, other damage etc. Also check emergency generator tank foundations, foundation supports and ancillary equipment. Check tank vents for obstruction.				
Check condition of fill port spill containment buckets, piping, valves and flanges looking for droplets of oil, discoloration, corrosion, evidence of releases from valves or seals.				
Check alarms, gauges and other instrumentation. Perform required testing and calibration.				
Check condition of secondary containment or nearby area looking for damage, corrosion, cracks, presence of leaked or stained material, settling, presence of vegetation, etc.				
Check that fill port and valves are securely closed or locked. Check that emergency generator control panel is locked.				
Check spill response equipment for sorbent pillows, pads, or socks, protective equipment and spill drain mats				
Check truck loading area for evidence of a release				

***CONDITION: INITIAL IF NO PROBLEMS ARE PRESENT, INDICATE N/A IF NOT APPLICABLE, OR DESCRIBE PROBLEMS IN COMMENTS SECTION**

MONTHLY INSPECTION FORM
Wake Forest University Corporate Center
Winston-Salem, North Carolina
Page 2 of 2

Check condition of transformers and vicinity looking for drip marks, discoloration, puddles of spilled or leaked material, corrosion, cracks, settling, presence of vegetation or other damage. Also check foundation, transformer cabinet locks, and room locks.

DATE	Transformer #1	Transformer #2	COMMENTS AND REQUIRED ACTION

*** INITIAL IF INSPECTED. DESCRIBE PROBLEMS IN COMMENTS SECTION**

APPENDIX VI
TRAINING DOCUMENTATION

SPILL PREVENTION CONTROL AND COUNTERMEASURE TRAINING FORM
Wake Forest University Corporate Center
Winston-Salem, North Carolina

Employee Name	Date	Training Type*	Signature

*Training Type: Initial, Annual Refresher, Plan Modification, Spill Follow-up.
 training Required for all facility personnel responsible for oil handling operations.

APPENDIX VII
RELEASE DOCUMENTATION

Release Documentation
Wake Forest University Corporate Center
Winston-Salem, North Carolina

Date of Incident: _____ Time of Incident: _____

Date of Discovery: _____ Time of Discovery: _____

Reported By: _____ (Name and Position)

Documented By: _____ (Name and Position)

Location of Release: _____

Material Released and Estimated Quantity: _____

Apparent Cause of Release: _____

Weather Conditions: _____

Witnesses (name, position, address and telephone number; include account on separate sheet):

Names of Injured and Extent of Injuries: _____

Actual/Potential Threats to Human Health, Safety, Storm Sewer, or the Environment _____

Containment and Cleanup Activities: _____

Estimated Quantities of Recovered Materials:

Oil: _____, Absorbent Materials: _____, Soil: _____

Water: _____, Other: _____

Notified: _____ NCDENR; _____ USEPA; _____ Other Agencies (List)

Signature: _____

Attach photographs, photo descriptions, site diagrams, witness accounts, letters or notification form, and correspondence and directives from local, state or federal authorities.

APPENDIX VIII

**EMERGENCY RESPONSE CONTRACTOR
AGREEMENT OR CONTRACT**

Signed emergency response agreement or contract to be inserted by Wake Forest University.

ATTACHMENT A

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN REVISIONS

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN REVISIONS
Wake Forest University Corporate Center
Winston-Salem, North Carolina

Date	Reviewer	Section(s) Amended	Revisions	PE Recertification (Yes or No; Entire Plan or Sections)
1/24/2013	Fisenne	Emergency Contacts	Updated phone numbers	No

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN AND
OIL FILLED OPERATIONAL EQUIPMENT
OIL SPILL CONTINGENCY PLAN**

**WAKE FOREST UNIVERSITY CORPORATE CENTER
1100 REYNOLDS BOULEVARD
WINSTON-SALEM, NORTH CAROLINA
ECS PROJECT 09-18602A**

**PREPARED FOR
WAKE FOREST UNIVERSITY
WINSTON-SALEM, NORTH CAROLINA**

FEBRUARY 1, 2012