SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN

CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT
5501 JOSH BIRMINGHAM PARKWAY
CHARLOTTE, NORTH CAROLINA 28208

PREPARED FOR:

MR. JIMMY JORDAN, P.G.
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S&ME CHARLOTTE
S&ME PROJECT NO. 4335-19-054

JULY 30, 2016
UPDATED NOVEMBER 26, 2019

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Charlotte/Douglass International Airport
Emergency Contacts

Spill Reporting Hotlines

National Response Center	(800) 424-8802 (manned 24 hrs/day)
Region 4 Environmental Protection Agency	(404) 562-8700
NC Emergency Response Commission	(800) 858-0368 (manned 24 hrs/day) or (919) 225-2500
NCDEQ – Mooresville Regional Office	(704) 663-1699 (8 am – 5 pm)
Charlotte Mecklenburg Stormwater Services	(704) 281-0938

Local Emergency Agencies

Agency	**Telephone #**
Charlotte-Mecklenburg Fire Department	911 or (704) 336-4174
Charlotte-Mecklenburg Police Department	911 or (704) 336-7600

Spill Response Contractor(s)

Company/Location	**Telephone #**
HazMat of Charlotte	(704) 332-5600

Charlotte/Douglas International Airport

Name/Title	**Telephone #**
Mr. Jimmy D. Jordan, P.G. – Environment and Sustainability Manager Mr. James McDorman, P.G. – Environmental Compliance Coordinator Mr. Joshua Eller – Environmental Compliance Specialist	(980) 288-3793 (704) 560-9242 (704) 793-7706
Airport Operations	(704) 359-4012 (24 hr/day)

See Appendix C for Spill Notification Forms

1.0 MANAGEMENT REVIEW AND APPROVAL

Management Review

A review and evaluation of this Spill Prevention, Control and Countermeasure (SPCC) Plan is conducted at least once every five years. As a result of this review and evaluation, Charlotte/Douglas International Airport (CLT Airport) will amend this SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review.

This SPCC Plan will also be amended within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

Any technical amendment to this SPCC Plan shall be certified by a licensed North Carolina Professional Engineer (P.E.).

Review Dates	**Signature**	**Amendment Required? (Y/N)**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Management Approval

CLT Airport is committed to the prevention of discharges of oil to navigable waters or the environment and maintains the highest standards for spill prevention control and countermeasures through periodic review, updating, and implementation of this SPCC Plan. CLT Airport will provide the manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful. CLT Airport has also determined that the use of containment and diversionary structures or readily available equipment to prevent discharge oil from reaching navigable water is practicable and effective at the site.

Authorized Facility Representative: JACK CHRISTINE Signature: _____

Title: _____ 12/4/19

2.0 PROFESSIONAL ENGINEER'S REVIEW

The undersigned Registered Professional Engineer is familiar with the requirements of Chapter 40 of the Code of Federal Regulations Part 112 (40 CFR 112) and has supervised examination of the facility. The undersigned Registered Professional Engineer attests that this SPCC Plan has been prepared in accordance with good engineering practices including applicable industry standards and in accordance with the requirements of 40 CFR 112; that procedures have been established for required inspections and testing; and that the SPCC Plan is adequate for the facility.

Thomas P. Raymond
Name

Signature

Senior Environmental Engineer
Title

S&ME, Inc.
Company

Nov. 26, 2019
Date

NC 18760
P.E. Registration Number

3.0 SPCC PLAN CROSS-REFERENCING GUIDE

Subpart A: All Facilities including operational equipment, manufacturing equipment, oil filled electrical equipment and bulk storage.

Description of Section [SPCC Rule 40 CFR 112]	**Plan Section**
P.E. Certification [112.3(d)]	2.0
Plan amended, certified [112.5(a), (c)]	1.0
Plan review w/documentation every 5 years [112.5(b)]	1.0
General Requirements for All Facilities [112.7]	
Management approval	1.0
Sequence or cross-reference	3.0
Facilities, etc. not yet fully operational discussed	4.4
Deviation from requirements: reasons, methods, equivalent protection documented [112.7(a)(2)]	4.4; 4.5
Facility description; diagram [112.7(a)(3)]	6.0
Container capacity; oil type (i)	7.0
Discharge prevention measures (ii)	7.0
Discharge or drainage controls (iii)	6.2
Countermeasures: discovery/response/cleanup (iv)	5.0
Disposal; legal requirements (v)	5.0
Notification phone list (vi)	5.0; Appendix D
Discharge notification form [112.7(a)(4)]	Appendix C
Discharge procedures organized [112.7(a)(5)]	5.0
Discharge prediction [112.7(b)]	7.0
Adequate secondary containment [112.7(c)]	
Loading/unloading other than rack	Not Applicable
Statement of impracticability [112.7(d)]	4.5
Integrity tests for bulk containers, piping, valves	

and leak testing for valves and piping	7.0
Contingency Plan per Part 109 [112.7(d)(1)]	5.1; Appendix D
Commitment of resources [112.7(d)(2)]	1.0; Appendix D
Inspections, Tests, and Records [112.7(e)]	
Written procedures	7.0; Appendix F
Records of inspections and tests; signature	Appendix F
Records kept for 3 years	Appendix F
Personnel, Training, and Prevention [112.7(f)]	6.4; Appendix E
Personnel properly trained [112.7(f)(1)]	6.4; Appendix E
Designated person for prevention [112.7(f)(2)]	6.4; Appendix E
Briefings conducted [112.7(f)(3)]	6.4; Appendix E
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Fenced; gates locked/guarded [112.7(g)(1)]	6.5
Flow & drain valves secured [112.7(g)(2)]	6.5
Pump controls locked off, access controlled [112.7(g)(3)]	6.5
Load/unload connections sealed[112.7(g)(4)]	6.5
Lighting appropriate for facility [112.7(g)(5)]	6.5
Tank Car/Truck Loading/Unloading Area [112.7(h)]	7.0
Adequate secondary containment [112.7(h)(1)]	7.0
Warning/barrier/other system [112.7(h)(2)]	7.0
Inspected for leaks [112.7(h)(3)]	7.0
Brittle fracture/other failure evaluation [112.7(i)]	Not Applicable
Discussion of conformance/stricter State Requirements [112.7(j)]	4.4

Subparts B and C: Specific Requirements, Onshore, (excluding Production Facilities)

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Dike drainage valves - open/closed design (b)(2)	7.0
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Final discharge diversion system alternative (b)(4)	6.3
Backup pump for lift station; drainage system prevents discharge due to failure/human error (b)(5)	Not Applicable
Bulk Storage Containers [112.8 (c); 112.12 (c)]	7.0
Containers compatible with material stored (c)(1)	
Adequate secondary containment (c)(2)	Appendix H
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Partially buried metal tanks coated or Cathodically protected (c)(5)	Not Applicable
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High-level pump cutoffs (ii)	
Signal system for gauger to pump station (iii)	
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SPCC Plan Requirements For Offshore Oil Drilling And Workover Facilities [112.11**]**	Not Applicable
Substantial Harm Certification [112.20(e)]	Appendix J

4.0 GENERAL INFORMATION

4.1 Purpose of the SPCC Plan and Plan Organization

This SPCC Plan was prepared to satisfy the applicable requirements under the United States Environmental Protection Agency (EPA) oil pollution prevention regulations (40 CFR Part 112). The complete 40 CFR Part 112 regulations are provided in Appendix A. The purpose of this written plan is to prevent the spill and discharge of oil products into navigable waters (e.g., streams, creeks, rivers, and lakes) or adjoining shorelines of the United States and to the underlying aquifer. As defined by 40 CFR Part 112, oil includes all grades of motor oil, hydraulic oil, lube oil, fuel oil, gasoline and diesel fuels, automatic transmission fluid, waste oil, and transformer mineral oil. The definition of oil also includes non-petroleum oils such as animal or vegetable oils and synthetic oils. This SPCC Plan also addresses the spill response procedures and actions that must be implemented if a spill occurs at a Facility.

In accordance with 40 CFR 112, CLT Airport and its tenants must prepare and implement an SPCC Plan for facilities that could reasonably be expected to discharge oil into or upon navigable waters or adjoining shorelines; and, meet one of the following conditions:

- Above-ground oil storage capacity exceeds 1,320 gallons (includes only those containers with storage volumes of 55 gallons or greater); or
- Underground oil storage capacity exceeds 42,000 gallons, unless the underground tanks are subject to all of the technical requirements of 40 CFR 280 or a state program approved under 40 CFR 281.

CLT Airport has aboveground oil capacity in excess of 1,320 gallons. The determination was based on a visual inventory of the following containers: used oil aboveground storage tanks (ASTs), new oil ASTs, diesel fuel ASTs, mobile or portable oil storage containers, oil operational equipment (i.e., emergency generators, transformers), and used cooking oil/grease ASTs associated with restaurants. Details on aboveground storage capacity volume and fuel delivery methods are provided in Section 7.0.

The November 2009 modifications to 40 CFR Part 112 allow separate facilities to be defined based on physical installations and leases. As such, CLT Airport is comprised of several “facilities”, including many that prepare and maintain their own site-specific SPCC Plans. This SPCC Plan

(Plan) has been prepared for the CLT Airport Facilities. The 19 facilities directly managed by CLT Airport and for which SPCC procedures are included in this SPCC Plan are:

- Old CLT Fleet Maintenance
- New CLT Fleet Maintenance
- CLT Main Terminal
- CLT Old Terminal Building
- CLT East Field Light Vault
- CLT Mid Field Light Vault
- CLT West Field Light Vault
- CLT Mid Field Fueling
- Blending Station
- American Airlines Maintenance Hanger (Recovery AST)
- CLT "T"-Point Service Area
- CLT Fire Station #41
- CLT Fire Station #17
- CLT Police Helicopter Pad
- Honeywell Corporate Aircraft Hangar
- Business Valet Parking Decks I & II
- CLT Yorkmont Road Maintenance Area
- Cargo Area

Some CLT Airport tenants and long-term contractors prepare, certify, and maintain their own SPCC Plans. Review, approval, and maintenance of these plans are the responsibility of the tenants listed below and CLT Airport has not determined the adequacy of tenant SPCC Plans. Where differences exist between this SPCC Plan and the tenant Plans, the tenant Plans take precedent for the tenant area of interest.

- American Airlines Maintenance Hangar Facility (includes the Stock Distribution Facility, and the Fire Pump House) and American Airlines GSE Facility
- Menzies (formerly ASIG) – West Ground Support Equipment (GSE)
- Menzies – Fuel Farm
- Bank of America – Aircraft Hangar
- Wilson Aviation FBO
- Honeywell Corporate Hangar
- Duke Energy

General information related to 40 CFR Part 112 is included in Sections 1.0 through 6.0, Figures 1 and 2, and Appendices A through J. Information related to specific CLT Airport Facilities is located in Section 7.0, Tables 1 through 20 and Figures 3 through 20 as well as Appendices K and L. The CLT Airport lease agreement requires that all tenants abide by state and federal regulations, and therefore may revoke lease agreements for tenant noncompliance with the SPCC regulations.

4.2 SPCC Plan Revisions

CLT Airport will revise this SPCC Plan for changes in the facility design, construction, operation or maintenance that affects the facility's potential for discharging oil. Revisions will occur as soon as practical but no later than six months after the change occurs. The CLT Airport Environmental Manager (Mr. Jimmy Jordan) will initiate and coordinate such revisions with the authorization and approval of the CLT Airport's Aviation Director.

Additionally, this SPCC Plan will be reviewed at least once every five years. Revisions to the plan, if any, must be made within six months of the review. Facility information related to this SPCC Plan must be submitted to the EPA Regional Administrator within 60 days whenever the facility has a spill or discharge of more than 1,000 gallons in a single event, or discharges more than 42 gallons of oil in each of two spill events within a 12-month period. When determining the applicability of this SPCC reporting requirement, the gallon amount(s) specified (either 1,000 or 42) refers to the amount of oil that actually reaches navigable waters or adjoining shorelines, not the total amount of oil spilled.

4.3 Definitions

A complete list of definitions pertaining to the SPCC regulation is provided in 40 CFR Part 112.2 (Appendix A); however, some definitions are added or expanded upon here as they pertain to CLT Airport:

- **AST** – Aboveground storage tank; these refer to all non-buried storage tanks used for containing liquids and include oil drums, totes, fixed tanks and mobile tanks (e.g., fuel trucks).
- **Container Size, Storage Capacity** – All containers with a shell capacity to store 55 gallons or more of oil or oil products must be included in this SPCC Plan, have secondary containment, and have spill countermeasures. Any CLT Airport tenant with an aggregate

aboveground storage capacity of 1,320 gallons (adding all of the storage containers 55 gallons or above), or an underground storage capacity of 42,000 gallons is required by 40 CFR 112 to have their own SPCC Plan specific to their facility.

- **Oil, Oil Products** – This SPCC Plan pertains to the spill prevention, controls and countermeasures for oil products only. The definition of "oil" in 40 CFR 112.2 is as follows: "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." It should be noted that stormwater or other waste water with any oil product within should be considered and handled as oil. Stormwater within secondary containment structures that is impacted with an oil product should be managed as a waste, and not be discharged to the environment without treatment.

- **Secondary Containment** – A redundant storage vessel constructed around the oil storage container to contain any spill in the event of the oil storage container leaking or rupturing. As required in 40 CFR 112.8(c)(2), all oil storage containers must have a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. The secondary containment must be made of oil compatible materials and sufficiently impervious to contain discharged oil. For oil drums, spill pallets are typically used for this purpose. For larger containers, concrete, steel or plastic lined dikes, containment curbs and pits are commonly used.

- **Spill, Discharge** – Includes, but not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil which could reach the waters of the United States. For purposes of this plan "Waters of the United States" include rivers, streams, wetlands, ponds, lakes**,** underlying aquifers, and storm water conveyances that are connected to natural surface water or groundwater without treatment to remove the oil (e.g., oil/water separator). This does not include discharges allowed under the National Pollution Discharge Elimination System (NPDES) permit for the site.

4.4 Conformance with Applicable Requirements

4.4.1 Federal SPCC Requirements

This SPCC Plan has been prepared in accordance with the 40 CFR Part 112 and good engineering practices. In conforming to all applicable requirements of 40 CFR 112, no deviations are employed or claimed in the SPCC Plan unless noted as an Equivalent Environmental Protection (Section 4.5). In accordance with 40 CFR Part 112.7, a cross-reference to the applicable requirements and their location in this document is provided in Section 3.0.

In addition, 40 CFR 112.7 requires that additional facilities, procedures, methods or equipment not yet fully operational must be discussed in this SPCC Plan. This discussion must include details regarding installation and operational startup. Therefore, the following general activities must be completed prior to the CLT Airport being in full conformance with this SPCC Plan requirements:

1. Blending Station – place lock on tank fill box; place lock on drain of tank fill box to prevent unauthorized discharge.

The specific corrective actions recommended for SPCC Plan compliance at each CLT Airport Facility location listed above are listed in Table 1 of this plan and a Photographic Log is located in Appendix K. With the corrective actions implemented, this facility will be in conformance with all applicable requirements under 40 CFR 112 through the implementation and maintenance of this SPCC Plan.

4.4.2 Conformance with State of North Carolina and Local Requirements

CLT Airport understands that the requirements of 40 CFR 112 are in conformance with State requirements and are the most stringent rules, regulations, and guidelines. This SPCC Plan was written in conformance with the requirements of 40 CFR 112.

4.5 Equivalent Environmental Protection

In accordance with 40 CFR Part 112(a)(2), a facility may deviate from certain aspects of the SPCC Plan requirements provided that equivalent environmental protection and good engineering practices are achieved through other means of spill prevention, control, or countermeasure. For this facility, the equivalent environmental protection includes:

- Equivalent controls in lieu of the specific catch basin/quick-drainage system for loading and unloading areas required by 40 CFR 112.7(h). CLT Airport contracts with suppliers that operate tanker trucks to transport used oil offsite in bulk. Because racks are not utilized, a quick drainage system is not required in the loading and unloading areas of this type. CLT Airport's oil pickup suppliers will provide prevention and control measures per 40 CFR 112.7(c) in these loading and unloading areas through specific procedures provided in Section 7.0 of this SPCC Plan.

- Equivalent overflow protection in lieu of the specific devices listed in 40 CFR 112.8(c)(8). The filling of ASTs with new oil products will be observed by trained CLT Airport personnel and/or suppliers using direct vision gauges installed on the tanks or observation of the liquid during filling per 40 CFR 112.8(c)(8)(iv). In addition, all oil transfers will take place over paved areas such that in the event of a spill, the pavement combined with proper use of a spill kit by trained personnel would sufficiently contain the spill cleanup.
- Equivalent secondary containment in lieu of specific prevention systems in 40 CFR 112.7(c)(1)(i-viii). Numerous drums without secondary containment (i.e. spill pallets) are used throughout the CLT Airport Facility. Spill kits with sorbent materials will be located in proximity to CLT Airport drum storage areas and CLT Airport will provide the manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

5.0 SPILL PREVENTION, CONTAINMENT, AND CLEANUP

Spill prevention is the responsibility of CLT Airport staff, and all tenants, contractors, and service vendors doing business at CLT. All day-to-day and routine aircraft support and terminal operations and maintenance, as well as service, repair, and Airport construction operations must be completed in a manner to prevent and/or minimize the risk of oil spills from vessels, tanks, containments, and refuse collections. As defined by the SPCC definitions (and presented in Section 4.3 of this document), oil includes any fats, oils, or greases of animals or any 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.

At a minimum, the following Spill Prevention guidelines must be observed:

- Exterior oil containers must be covered at all times with an appropriate manufacturer provided (or similar) fitted lid or covering. This policy additionally applies to any container situated within a building or beneath a covered structure that is within 50 foot of a drain that leads to the receiving stormwater or wastewater system;
- All oil containing vessels of 5 gallons or greater must be clearly labeled to include information on the contents, date of expiration (if applicable) and ownership/use and contact information;
- Secondary containment dikes must be present for any single-wall oil-filled container of 1,320 gallons or more, or any group of (5+ gallon) containers where the aggregate aboveground storage capacity is greater than 1,320 gallons. Oil-filled 55-gallon drums of virgin un-opened product are specifically exempt from this requirement so long as such containers are not stored within 50 lateral feet of storm drains or water catchments;
- Secondary containment dikes are required to be visually assessed each calendar month for the presence of oil, other contaminants, or heavy oil sheen. The entity responsible for the inspection is the same as the user of the product being stored. Visual assessment must be documented in writing and will include recording information such as:
    - I. Date and time of inspection and observation and name of the person performing the observation;
    - II. whether or not floating oil, a collection of oil, or an oil sheen is observed within the containment;
    - III. the approximate quantity, thickness, or accumulated depth of any observed oil;
    - IV. The disposition and disposal method of the material.
- The user of the material at which is being stored is required to present documentation of these inspections on demand by CLT or any regulatory agency having authority to enforce local, state, or federal rules pertaining to SPCC.

- Secondary containment dikes shall have a lockable discharge valve and shall be kept in the "closed" position. The discharge valve shall be opened only for the purpose of releasing accumulated rainfall, snowmelt, potable waters, and condensate waters. Liquid or solid waste collections or obviously contaminated waters shall NOT be released from these containments and should be removed by an approved waste disposal hauler using a vacuum truck with collection tank or similar method.
- Areas around secondary containment dikes are to be kept clean and free of visible oil, grease, sheens, accumulated debris, and foreign matter.

Transporting of oil products from one location to another within the CLT Airfield, terminal, CLT-owned buildings or otherwise within the SIDA, should be minimal and limited in both quantity and frequency. All transported containers over 5-gallon capacity must be fitted with appropriate lids and covers, and no transportation by motorized vehicle, push-cart, GSE equipment, or staff personnel is authorized for containers lacking such coverings at any time.

Additional specific policies and procedures may apply with regards to spill prevention. Annual Training is provided by CLT Environmental Affairs staff members and is required by all oil-handling personnel working for a contractor, vendor, for the Airport, or a service provider.

5.1 Spill Response

This section describes the cleanup response and protocols to follow in the event of an oil spill. The uncontrolled discharge of oil to groundwater, surface water or soil is prohibited by State or Federal laws. CLT Airport employees that work with and around oil sources receive annual training to implement spill prevention practices and spill response. CLT Airport personnel shall use knowledge gained during training and rely on spill prevention practices at all times to minimize the potential for a release of oil. It is imperative that action be taken to respond to a spill once it has occurred. Depending on the volume and characteristics of the material released, CLT Airport has defined spill response as either a "Minor Spill Response" or "Major Spill Response" ("Spill Emergency"). A list of spill response materials kept at the facility is included in Appendix B. The locations of spill kits at each facility are documented on Figures 3 through 20.

Each tenant with fuel/oil containers 55 gallons or greater has been instructed to have a spill response kit located at each tank and drum storage location. The standard spill response equipment (i.e., spill kit) must contain at least:

- Oil-absorbent material (granular absorbent, absorbent pads, absorbent socks) in sufficient quantities to absorb the largest predicted spill (See Tables 2 through 20).
- Large plastic bags
- Broom and dustpan
- Drum
- Temporary drain covers for catch basins in the area (e.g., rubber mat or like product) sufficient for drains in the immediate downgradient area
- Personal protective equipment

Minor Spill Response

A "Minor Spill Response" is defined as one that poses no significant harm to human health or the environment. These spills involve generally a few gallons of petroleum product and can usually be cleaned up by CLT Airport personnel, or the responsible party. Other characteristics of a minor spill include the following:

- the spilled material is easily stopped or controlled at the time of the spill
- the spill is localized
- the spilled material is not likely to reach surface water or groundwater
- there is little danger to human health
- there is little danger of fire or explosion

In the event of a minor spill the following guidelines shall apply:

- Stop the source if the spill is ongoing
- Contain the spill with spill response materials and equipment
- Place spill debris in properly labeled waste containers
- Complete a *Spill Notification Form* (similar to the one contained in Appendix C) and send to the CLT Environmental Manager.

Major Spill Response (Spill Emergency)

A "Spill Emergency" is defined as one involving a spill that cannot be safely controlled or substantially cleaned up. These spills are generally over 40 gallons. Characteristics include one or more of the following:

- the spill is large enough to spread beyond the immediate spill area and may affect airport operations, or adjacent or neighboring tenants or operations;
- the spilled material enters surface water or groundwater (regardless of spill size)
- the spill requires special training and equipment to cleanup
- the spilled material is dangerous to human health or the environment
- there is a danger of fire or explosion

In the event of this type of spill emergency, the following guidelines shall apply:

- Stop the source if the spill is ongoing only if safe to do so.
- All personnel not directly involved with spill response shall immediately evacuate the spill site and move to a safe distance away from the spill.
- Call for medical assistance if workers are injured (no worker shall engage in rescue operations unless they have been properly trained and equipped).
- Notify the Environmental Manager (Mr. Jimmy Jordan; 980-288-3793) or Airport Operations (704-359-4012) if the spill is greater than 10 gallons, has entered subsurface conduit, is within 100 feet of a surface water body, or moderate to heavy rainfall is in progress at the time of the spill. The Environmental Manager will notify the NC Emergency Response Commission (800-858-0368) and the National Response Center (800-424-8802) when necessary. Document the telephone calls on the *Spill Notification Form* in Appendix C.
- CLT Airport or emergency response personnel will complete and submit a 24-Hour Notification of Discharge Form (UST-62; Appendix C) to the North Carolina Department of Environmental Quality (NCDEQ) - Mooresville Regional Office within 24 hours of discovery of a known or suspected petroleum release.

If the Environmental Manager or CLT environmental staff is not available at the time of the spill, an Airport Operations Supervisor or an Operations Officer shall assume responsibility (704-359-4012; 24 hr/day).

Release to Drainage Systems

If it is determined that oil has entered a CLT Airport Facility drainage system, CLT Airport will take the necessary measures to contain and recover the released material. In addition, actions will be taken to prevent additional oil from entering the drainage system. In some instances, gravity

flow (i.e. "flushing" with water) may be used to recover the released oil from the drainage system. The determination to utilize water flushing will be made by conferring with the local incident responder(s) such as the Charlotte Fire Department HazMat team, the local or state regulatory agency, and/or the on-site cleanup contractor. Measures will be taken to prevent oil from reaching natural water bodies. These measures will include but are not limited to:

- the use of vacuum trucks to recover spilled material
- the installation or placement of absorbent booms, pads, socks, or similar products downstream of the spill material and near the outfall of the storm drain

Once the cleanup of the spill is complete, the receiving water feature will be monitored for the presence of oil such as floating product, sheen, discolored substances, etc. until the water feature is clean of all presence of oil.

Contingency Plan and Commitment

Numerous transformers and emergency generators (oil-filled operational equipment) are located at the CLT Airport Facilities (Table 2, Tables 4 through 9, Tables 12 through 17, and Table 20 and Figure 4, Figures 6 through 11, Figures 14 through 18, and Figure 21). The transformers are pad-mounted and are not equipped with secondary containment. Release from oil-filled operation equipment is protected by CLT Airport's Contingency Plan (Appendix D). The Contingency Plan is a flexible approach to spill prevention and control. The plan utilizes the training the CLT Airport personnel have received in the personnel training program, the outline of actions provided by a Notification Procedure, and the physical and economic resources of the CLT Airport. The containment of oil and the prevention of oil reaching surface waters will be achieved by the application of sufficient material, manpower, and equipment.

5.2 Reporting

In the event of a petroleum spill, notify the Environmental Manager (Mr. Jimmy Jordan). The Environmental Manager may desire to be on-site should any of the following conditions apply:

- The spill is a petroleum product and greater than 10 gallons;
- The spill is a petroleum product of any size, and has entered a subsurface conduit such as a grate, drain, or curb gutter;

- The spill of a petroleum product or other substance is within 100 feet of a surface water body;
- Moderate to heavy rainfall is in progress at the time of a 10-gallon or greater spill;
- The spill is non-petroleum, but is some other hazardous liquid, potentially hazardous substance, or unknown substance, and is of any measurable amount.

Airport Operations should notify the Airport Environmental Manager if any of the above criteria apply to the situation. Mr. Jordan should be notified by telephone as follows:

All days, all hours 980-288-3793 (Cellular Phone)

In instances where the Environmental Manager cannot be reached or cannot be present due to geographical constraints, sickness, or other reason, the Airport Environmental Compliance Specialist (ECS) should be contacted at 704-793-7706. The ECS shall decide whether or not the incident management and cleanup should be coordinated by an on-site CLT Airport staff member. If neither of the Airport Environmental Staff members can be reached, then an Airport Operations Supervisor or Operations Officer should maintain a presence at the incident area. A member of the Environmental Compliance staff or Airport Operations staff member will visit the incident area (if safe to do so), obtain the following information, and record it in writing:

- Product name that was spilled;
- Who is reporting the spill
- Parties or party who *appeared* responsible;
- Approximate quantity of the spill;
- Approximate size of the area encompassed by the spill;
- Weather conditions at the time of the spill;
- Specific Spill location;
- Proximity of Nearby Surface Water bodies or Drains noted;
- Type of surface that the spill occurred upon (concrete, asphalt, grass etc.)

Copies of records pertaining to Spill Response (Airport Response Monitoring System [ARMS] or other) should be available to the Environmental Manager within 12 hours of the spill, or as soon as practicable.

Reporting requirements to the appropriate regulatory agencies will be handled by the Environmental Manager or his designee at his discretion. No one other than the airport Environmental Manager should report spills to any federal, state or local agency. Exceptions may be given by the Environmental Manager. The absence of Environmental Affairs personnel or other airport staff must not delay the cleanup and mitigation measures and restoration to the affected area. This also applies to tenant and long-term contractor areas.

The decision to call an outside Hazardous Material Response Contractor rests with the Environmental Affairs Officer or other Alternate Response person based on the severity of the incident. Spill Notification Forms will be kept in the Environmental Manager's Office. This also applies to tenant and long-term contractor areas.

<u>NC Emergency Response Commission – Notification</u>

The Environmental Manager or his designee will report spills to the 24-hour NC Emergency Response Commission. A 24-Hour Notification of Discharge Form (UST-62; Appendix C) will be completed and submitted to the North Carolina Department of Environment and Natural Resources - Mooresville Regional Office within 24 hours of discovery of a known or suspected petroleum release.

<u>US Environmental Protection Agency - Notification</u>

The Environmental Manager will report the discharge to the National Response Center (800-424-8802) within 24-hours of discharge **IF** the release:

- Reaches a navigable water or adjoining shoreline; or
- Could violate water quality standards; or
- Causes sheen on nearby surface water; or
- Could cause a sludge or emulsion to be deposited beneath the surface of navigable waters or upon adjoining shorelines.

Submittal of Additional Information to the EPA and NCDEQ

If a single spill greater than 1,000 gallons occurs, or two spills each greater than 42 gallons occur within any 12-month period at the CLT Airport, the Environmental Manager shall, **in addition to the notification procedures above**, provide written information to the EPA Regional Administrator as required by the federal SPCC rules. A copy of this information must be provided to the NCDEQ.

Area Plans

The EPA and United States Coast Guard (USCG) administer Area Plans for spill contingency response by Region throughout the United States. The USCG covers coastal areas, and EPA covers inland areas. In a major spill event, contacting the National Response Center hotline will trigger assistance from the appropriate agency, if needed.

5.3 Disposal of Recovered Materials

The range of remedial actions will vary depending on the nature of the spill. The remedial response for small spills, leaks, or drips may be as simple as removing the contaminated material (i.e. dirt, booms, or other absorbents) and placing them in an approved container (i.e., impervious bags, drums or buckets) for subsequent treatment or disposal by a licensed waste hauler within a reasonable amount of time.

A large spill could result in an extensive cleanup of soil, groundwater, and surface water and may require a specific cleanup action required by NCDEQ. In the event of a major spill, an environmental contractor should be notified to clean up the spilled material, under the direction and advice of the local regulatory agency.

6.0 FACILITY INFORMATION

CLT Airport is located in the City of Charlotte, Mecklenburg County, North Carolina, as presented on the Site Vicinity map (Figure 1). The airport property includes approximately 6,000 acres of land located seven miles west of uptown Charlotte. Major transportation routes near the airport include Billy Graham Parkway, NC 160, Interstate 85, and Interstate 485.

CLT Airport is a joint civil-military public international airport. CLT Airport averages approximately 721 flight departures daily on four runways. The length of the four runways 18C-36C, 18R-36L, 18L-36R, and 5-23 are 10,000 feet, 9,000 feet, 8,676 feet, and 7,500 feet, respectively. CLT Airport is primarily a commercial service airport having nine airline carriers present on the site. There are some private general aviation tenants and commercial fixed-base operators providing storage and aircraft maintenance services. According to 2018 statistics, the airport handled more than 46 million passengers and 135,000 tons of cargo to/from various locations.

6.1 Description of Facility and Tenants

Based on previous site observations and interviews with facility representatives, the facilities listed below maintain oil storage tanks, vessels or containers with the capacity that exceeds the threshold quantities and require the preparation and maintenance of a site specific SPCC Plan. An Overview Map is included as Figure 2. The facility and tenant-specific SPCC Plans are as follows:

Facility	Section or Appendix
Old CLT Fleet Maintenance	7.1
New CLT Fleet Maintenance	7.2
CLT Main Terminal	7.3
CLT Old Terminal Building	7.4
CLT East Field Light Vault	7.5
CLT Mid Field Light Vault	7.6
CLT West Field Light Vault	7.7
CLT Mid Field Fueling	7.8
Blending Station	7.9
American Airlines Maintenance Hanger	7.10
CLT – “T”-Point Service Center	7.11
CLT Fire Station #41	7.12
CLT Fire Station #17	7.13
CLT Police Helicopter Pad	7.14

Honeywell Corporate Aircraft Hangar	7.15
Business Valet Parking Decks I & II	7.16
CLT Yorkmont Road Maintenance Area	7.17
Cargo Area	7.18
Corrective Action's Photolog	Appendix K
Representative AST's Photolog	Appendix L

A copy of the facility or tenant specific SPCC Plan will be maintained in the Environmental Manager's office at the CLT Center facility. Facility or tenant specific copies of this SPCC Plan will be kept at each of the occupied CLT Airport Facilities per Sections 7.1 through 7.18.

6.2 Requirements for Temporary Oil Tanks Operated by Contractors and Vendors

In order to comply with all Federal, State, and local regulations, and common industry standards, all contractors and vendors who provide contracted services on CLT Airport property must comply with the Airport's SPCC guidance regarding the installation, transportation, erecting, and operation of Above-ground fueling tanks. Prior to the installation and operation of such "temporary" tanks or vessels, a request for installation and operation must be forwarded to the Airport Environmental Manager, and a surety bond must be put up in the amount of not less than $50,000. The bond shall be valid for the duration of the project, or until which time the AST is free of product and removed from service. Additional requirements for contractor or vendor-owned and operated temporary oil tanks are as follows:

- Contractors must present to CLT ENV staff a *Fueling and Management Plan* that discloses specific information about tank use and emergency spill response.
- The tank must be inspected by CLT ENV staff once it is brought to the site and prior to first use.
- A CLT ENV staff member must be present for "first fueling" operation.
- The tank must be of good structural integrity and must have a net fueling capacity of 600 gallons or less. The tank must be in good working order, of good structural integrity, and have secondary containment sufficient to hold 100% of the contents, or it must be made of double wall construction.
- Tanks shall not be bolted down to a paved surface and shall not be permanently wired for the purposes of classifying it as a temporary tank.
- The tank must also have Vehicle barriers (bollards), Explosion proof wiring, sufficient ventilation, and must be situated on a stable uniform and level surface

- The maximum size of any non-Airport owned AST brought onto CLT property cannot exceed 600 gallons.
- The maximum number of tanks per project shall not exceed 1 tank per acre.

All contractors and vendors who seek to bring a temporary fueling tank onto CLT Airport property must additionally comply with the NC Fire Code, Chapter 1, Administration section 105.6.16.6 as well as National Fire Protection Association Standard 30 and 30A (NFPA 30 and NFPA 30A).

6.3 Site Drainage

The CLT Airport Facility is permitted to discharge storm water associated with industrial activity into Ticer Branch, Coffey Creek, Taggart Creek, and Paw Creek. These streams are classified as Class C waters within the Catawba River Basin. The CLT Airport is required to monitor these six outfalls (Outfall 001, 002, 003, F, H and K) as well as In-stream Outfall 004, which is located in Coffey Creek, upstream of the CLT Airport. The CLT Airport is divided into drainage basins which include Coffey Basin, Taggart Creek Basin, Ticer Basin, ANG Basin, FBO Basin, T-hangar Basin, Runway 23 (R23) Basin, Air Cargo Basin, Ramp Basin, 36R Basin, and Sentry Post Basin (Figure 3). Figures 4 through 21 indicate the expected drainage direction from individual facilities. Personnel at the CLT Airport Facility are aware that spills leaving the site can impact Ticer Branch, Coffey Creek, and Taggart Creek, and/or Paw Creek.

6.4 Personnel Training

Oil handling personnel responsible for CLT Airport Facilities will be trained in spill prevention, containment, and countermeasure procedures and will be familiar with applicable pollution control laws, rules, and regulations. Annual SPCC spill training for personnel involved with handling petroleum products should include, but not be limited to, the following training topics:

- An introduction to pollution control laws
- Rules and regulations pertaining to the use and storage of petroleum products
- Inspection, operation and maintenance of spill equipment, and petroleum storage and dispensing equipment
- Spill response and cleanup
- Spill notification and record keeping
- Spill prevention practices
- Use of appropriate personal protective equipment for protection during the handling of

oil products
- Checking tank levels before filling tanks
- Attending pump operations continuously
- Displaying warning signs instructing personnel to check for disconnection before vehicles depart
- Promptly correcting visible discharges that result in a loss of oil from any container or diked area
- Maintaining equipment to prevent oil discharges and spill incidents
- Facility personnel participating in a practice drill for an on-site spill event including spill prevention, containment, and clean-up methods
- Posting instructions and emergency phone numbers for reporting a spill to the CLT Airport's Environmental Manager
- Ensuring a copy of this SPCC Plan with updated inventory of tanks and site plans is located at the Environmental Manager's office and is accessible and/or provided to each of the specific CLT Airport Facilities at which the updates occurred

Records of attendance at training and topics covered shall be maintained by the Environmental Manager. The annual SPCC training shall be documented to include the instructor's name, course outline, date and duration of training, attendee's names and signatures, and corrective action list for areas in need of improvement, if any. This information shall be filed and maintained for at least three years by the Environmental Manager on the Employee Training Log provided in Appendix E.

6.5 Airport Security

Access to the CLT Airport is limited by chain-link security fences, locked gates, and/or manned and/or identification card operated gates and doors. Employees and tenants of CLT Airport must be finger-printed, undergo a background security check, and successfully pass a test related to general airport security.

Access through gates is monitored by Airport Operations on a 24-hour basis. Access to the areas of oil storage is limited. Lighting is provided in the vicinity of the fuel storage areas and comes on automatically at night. The lighting is adequate to allow for detection of discharges during nighttime hours and is sufficient to discourage acts of vandalism.

7.0 CLT AIRPORT FACILITY SPCC PLANS

Introduction

Methods of secondary containment for the CLT Airport Facilities include a combination of structures (e.g., built-in secondary containment), drainage systems (e.g., storm drains, ditches), and land-based spill response (e.g., absorbent materials) to prevent oil from reaching navigable waters and adjoining shorelines. Tables 2 through 20 provide content and storage capacity of aboveground containers and reasonable spill scenarios for the CLT Airport Facilities described below in Sections 7.1 through 7.19. Each aboveground container is compatible with the oils they contain and conditions of storage. There are no partially buried or underground storage tanks (USTs) at the CLT Airport Facilities, though some tenants have USTs that are addressed in their facility SPCC plans. The tables also include the potential rate of release for each scenario. Figures 3 through 20 show the general location of containers, loading and unloading areas, and the direction of flow/containment if failure of an oil products storage container/equipment occurred. A brief description of the types of oil storage and fueling methods at the CLT Airport is provided in the following paragraphs. A photographic log showing examples of representative photographs of onsite oil storage containers is located in Appendix L.

Fuel Farm

The Menzies fuel farm facility stores and maintains large above-ground vessels of aviation fuel. This fuel is primarily transported from the Paw Creek (Charlotte) Fuel Terminal to the Menzies Fuel Farm via the Plantation and Colonial Underground pipeline spur, although a relatively small amount of fuel is delivered by tanker truck. The collective capacity of the fuel farm's large ASTs is approximately seven million gallons; approximately 400 million gallons of fuel was dispensed through the system and into aircraft at CLT in 2018.

Menzies personnel operate the fuel farm, the underground hydrant system, and on-airfield tanker truck fueling areas. Menzies maintains an SPCC Plan and a Facility Response Plan (FRP), as required by 40 CFR. The FRP is maintained due to the relatively large total oil storage capacity and the proximity of nearby Ticer Branch, an upper tributary of Paw Creek, which is a feeder stream into the Catawba River system and Lake Wylie.

Mobile Oil Storage for Aircraft Fueling

Menzies has addressed mobile oil storage for aircraft fueling in their SPCC Plan.

Aircraft

At any given time, aircraft with fuel tanks that exceed 55 gallons in capacity are parked at the CLT Main Terminal, CLT Police Helicopter Pad, or the Carolinas Aviation Museum. Based on a discussion with the USEPA Region 4 SPCC/FRP Program Coordinator, parked aircraft are not required to have a means of secondary containment. However, spill countermeasures are required to be in place prior to and during the fueling or loading of oil into the aircraft as discussed further in Section 7.0.

Drums and ASTs

There are multiple containers (i.e. drums, ASTs, totes, etc.) at the CLT Airport Facilities, used for storage and collection of new and used oil (hydraulic, lube, and motor oil) and fuel (gasoline, diesel fuel, Jet A, and aviation) necessary for facility operations and maintenance. The locations of these containers vary and are shown on Figures 3 through 20. All containers are above ground, ranging from 55 to 16,000 gallons in capacity. Containers may be single or double-walled storage tanks located indoors, or under a roof structure, and have an appropriate form of secondary containment. For individual drums, secondary containment is typically provided by placing the drums on a "spill pallet." The spill pallet is a portable plastic grate over a plastic bin that is specifically designed to store up to four drums each, with the secondary storage capacity to contain the contents of one drum. However, for drums without pallets, spill kits will be placed in proximity in lieu of secondary containment. Drums without secondary containment are not located near storm water catch basins.

Underground Oil Product Storage - Piping

Menzies has addressed underground oil product storage in their SPCC Plan and FRP located at their facility.

Emergency Generators and Transformers

Typical transformers at the CLT Airport Facilities have oil storage in quantities typically of 399 gallons with the largest storage volume of 677 gallons. Large emergency generators with belly tanks at the CLT Airport Facilities have oil storage in quantities typically of 850 gallons whereas

the smaller emergency generators have oil storage in quantity typically of 450 gallons. Both transformers and emergency generators are oil-filled operational equipment and are protected by CLT Airport's Contingency Plan. Note that the emergency generators generally have built-in secondary containment.

Substantial Harm Certification

A facility would fall under the "substantial harm" category if it meets at least one of the following criteria:

- The facility has a total oil storage capacity greater than or equal to 42,000 gallons and performs overwater oil transfers to or from vessels; or
- The facility has a total oil storage capacity greater than or equal to one million gallons, and meets one of the following conditions:
    - The facility does not have secondary containment for each aboveground storage area; or
    - The facility is located such that a discharge could cause "injury" to an environmentally sensitive area; or
    - The facility is located such that a discharge would shut down a public drinking water intake; or
    - The facility has had, in the past five years, a reportable spill greater than or equal to 10,000 gallons.

None of the CLT Airport's Facilities covered by this SPCC Plan meet the criteria. A Certification of Substantial Harm Determination Form for each of the CLT Airport Facilities covered by this SPCC Plan is included in Appendix J.

7.1 Old CLT Fleet Maintenance

The Old CLT Fleet Maintenance facility's primary SPCC actions would be expected to involve vehicular and equipment maintenance and fueling activities for City owned cars, trucks, and buses used at the airport. The facility is also the "home base" for equipment utilized in landscaping, construction, clean up, and CLT Airport grounds maintenance.

7.1.1 Oil Storage and Potential Spill Prevention

The active storage containers observed on the property as well as potential spill prediction and control measures are included on Table 2. Figure 4 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tanks at the Old CLT Fleet Maintenance facility utilize the following devices and procedures in place to prevent discharges:

- High-level alarms
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices that are regularly tested.

7.1.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe containers often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect containers, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.

- Spill kits are readily accessible and stocked with a supply of oil-absorbent material and other supplies for cleanup of small spills.
- Bollards located around the perimeter of the oil and fuel tanks prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the United States Department of Transportation (USDOT). CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of Drums and ASTs

Trained oil-handling personnel will perform the filling of petroleum storage containers to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the containers to full capacity. The SPCC-trained personnel will transfer the product into the drums or AST(s) by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

Secondary containment should be available around all containers with a capacity for 100 percent of the contents of the largest tank within the secondary containment; sufficient freeboard for precipitation should be provided if the tank is unsheltered and exposed to precipitation. In lieu of secondary containment, spill kits will be placed near drums without spill pallets provided that the drums are not located near storm water catch basins. If applicable, storage containers should be equipped with a pressure relief valve to reduce a buildup of pressure, which could cause leaks. Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage tanks should be kept neat and clean. Used oil tanks will be emptied of contents by a used oil recycler/vendor when the tanks are determined to be full, or on a routine basis.

Emptying of Used Oil Product Drums and ASTs

Prior to emptying drums and ASTs, all valves or openings must be examined for leakage. All tank main flow valves must be securely locked in the closed position except during emptying the contents. Used oil product transfers from the ASTs must be monitored by trained oil-handling personnel.

The procedure below will be followed to prevent an oil spill or discharge during the transferring and loading of used oil product from the ASTs to a used oil product vendor tanker truck:

1. The vendor will check in with CLT Airport Field or Vehicle Maintenance personnel and then be provided access to the used oil AST(s).
2. The vendor will park the tanker truck near the loading area and chock the wheels.
3. Facility personnel and/or the vendor will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur during the loading process.
4. The vendor or Old CLT Fleet Maintenance personnel will temporarily cover the nearest outside catch basins, which could reasonably receive oil in the event of an oil spill during loading (recognizing absorbent materials are also available if needed). The temporary cover shall consist of a rubber mat or like product that will prevent oil from entering the drain(s). The vendor will attach the hose or insert the hose within the used oil AST to begin the loading (vacuum pumping) process.
5. During the loading process, the vendor will visually monitor the liquid level in the tanker truck and shut off the flow when the AST is emptied.
6. After the used product loading process is completed, the vendor will drain the hose into the tanker truck (or, if necessary, into a portable container).
7. The drain/removal port on the used product ASTs will be closed.
8. The vendor will prepare the tanker truck for departure and check for any oil drips or leaks from under the tanker truck. If oil is observed under the truck, the vendor will take corrective actions to stop the drips or leaks and clean up the spilled oil. The vendor will then remove the wheel chocks and leave the facility.
9. The facility personnel will restock or order any materials used from the spill response equipment (i.e., spill kit).

Fueling Operations to ASTs

Trained oil-handling personnel must monitor the fueling of ASTs to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

Fueling Operations to Vehicles

Trained oil-handling personnel authorized to dispense fuel should comply with the following procedures to assist in the safe transfer of petroleum product into equipment or vehicles:

1. Verify container or vehicle is compatible to the fuel to be dispensed.
2. Position vehicle or container as close as possible to fuel pump.
3. Remove all ignition sources.
4. Fuel dispenser nozzle is to be placed as far as possible inside the vehicle or container fill port.
5. Inspect all nozzles, connections, hoses for leakage or damage.
6. Attend dispenser at all times during product transfer.
7. Remove nozzle, hold upright, inspect for leaks, and return to dispenser.

7.1.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, Old CLT Facility Maintenance will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.1.4 Facility Security Requirements

The tank area(s) is secured by fencing and/or locked valves. The tank(s) will be opened only when a truck is unloading/loading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves, such as water draw valves, which permit direct outward flow of a tank contents, are locked in a "closed" position when in non-operating or standby status. Oil and fuel storage tank valves are locked closed when the site is unattended.
- Starter controls on all oil pumps in non-operating or standby status are locked "closed" and installed at a location accessible only to authorized personnel.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The Old CLT Fleet Maintenance facility staff is available 24 hours per day.

7.2 New CLT Fleet Maintenance

The New CLT Fleet Maintenance facility at CLT Airport was opened August 27, 2019. Operations at New CLT Fleet Maintenance will be able to service a diverse heavy vehicle fleet of over 500 vehicles and equipment in a state-of-the-art metal frame and masonry wall facility with four light-duty bays, six bus bays, six heavy duty bays, two fire apparatus bays, welding, and chassis wash bays. A new bus wash facility has also been completed. Instead of using 100% potable water to wash the buses, over 80% of the water is reclaimed for reuse as greywater in subsequent wash cycles. Potable water is introduced only at the final rinse prior to being reclaimed.

7.2.1 Oil Storage and Potential Spill Prevention

The active storage containers observed on the property as well as potential spill prediction and control measures are included on Table 3. Figure 5 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tanks at the New CLT Fleet Maintenance facility utilize the following devices and procedures in place to prevent discharges:

- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices that are regularly tested.

7.2.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe containers often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect containers, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.

- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- Spill kits are readily accessible and stocked with a supply of oil-absorbent material and other supplies for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of Drums and ASTs

Trained oil-handling personnel will perform the filling of petroleum storage containers to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the containers to full capacity. The SPCC-trained personnel will transfer the product into the drums or AST(s) by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

Secondary containment should be available around all containers with a capacity for 100 percent of the contents of the largest tank within the secondary containment; sufficient freeboard for precipitation should be provided if the tank is unsheltered and exposed to precipitation. In lieu of secondary containment, spill kits will be placed near drums without spill pallets provided that the drums are not located near storm water catch basins. If applicable, storage containers should be equipped with a pressure relief valve to reduce a buildup of pressure, which could cause leaks. Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage tanks should be kept neat and clean. Used oil tanks will be emptied of contents by a used oil recycler/vendor when the tanks are determined to be full, or on a routine basis.

Emptying of Used Oil Product Drums and ASTs

Prior to emptying drums and ASTs, all valves or openings must be examined for leakage. All tank main flow valves must be securely locked in the closed position except during emptying the contents. Used oil product transfers from the ASTs must be monitored by trained oil-handling personnel.

The procedure below will be followed to prevent an oil spill or discharge during the transferring and loading of used oil product from the ASTs to a used oil product vendor tanker truck:

1. The vendor will check in with CLT Airport Field or Vehicle Maintenance personnel and then be provided access to the used oil AST(s).
2. The vendor will park the tanker truck near the loading area and chock the wheels.
3. Facility personnel and/or the vendor will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur during the loading process.
4. The vendor or New CLT Fleet Maintenance personnel will temporarily cover the nearest outside catch basins, which could reasonably receive oil in the event of an oil spill during loading (recognizing absorbent materials are also available if needed). The temporary cover shall consist of a rubber mat or like product that will prevent oil from entering the drain(s). The vendor will attach the hose or insert the hose within the used oil AST to begin the loading (vacuum pumping) process.
5. During the loading process, the vendor will visually monitor the liquid level in the tanker truck and shut off the flow when the AST is emptied.
6. After the used product loading process is completed, the vendor will drain the hose into the tanker truck (or, if necessary, into a portable container).
7. The drain/removal port on the used product ASTs will be closed.
8. The vendor will prepare the tanker truck for departure and check for any oil drips or leaks from under the tanker truck. If oil is observed under the truck, the vendor will take corrective actions to stop the drips or leaks and clean up the spilled oil. The vendor will then remove the wheel chocks and leave the facility.
9. The facility personnel will restock or order any materials used from the spill response equipment (i.e., spill kit).

Off-Loading Operations to ASTs

Trained oil-handling personnel must monitor the deliveries of oil to ASTs to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will

be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.2.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, New CLT Facility Maintenance will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.2.4 Facility Security Requirements

The tank area(s) is secured by a locked door and/or locked valves. The tank(s) will be accessible opened only when a truck is unloading/loading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves, such as water draw valves, which permit direct outward flow of a tank contents, are locked in a "closed" position when in non-operating or standby status. Oil and fuel storage tank valves are locked closed when the site is unattended.
- Starter controls on all oil pumps in non-operating or standby status are locked "closed" and installed at a location accessible only to authorized personnel.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The New CLT Fleet Maintenance facility staff is available 24 hours per day.

7.3 CLT Main Terminal

The CLT Main Terminal is located at 5501 Josh Birmingham Parkway in the north central portion of the airport facility. The Terminal Area is a commercial passenger transfer facility consisting of Concourses A, B, C, D, and E commercial airline ticketing areas, baggage pick-up and drop-off areas, shops and restaurants. The "ramp" area – or ground level for the main terminal and five concourses provides space for aircraft support services, airline offices, break rooms, and equipment storage and staging areas, etc.

7.3.1 Oil Storage and Potential Spill Prevention

The active storage containers observed at the CLT Main Terminal, as well as potential spill prediction and control measures, are included on Table 4. Figure 6 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tanks at the CLT Main Terminal facility have the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.3.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe containers often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect containers, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.

- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material is to be kept on-site for cleanup of small spills.
- Ensure bollards are located around the perimeter of the oil and fuel tanks prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.
- When not in use, tanker trucks must be locked and secured on sufficiently impervious surfaces which will contain discharged oil or fuel. These parking areas will also be curbed or equipped with a sump to contain the single largest truck or compartment of the tank that could be discharged due to tank leaking, rupture, or vandalism.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of Drums and ASTs

Trained oil-handling personnel will perform the filling of oil and fuel storage tanks to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tanks to full capacity. The SPCC-trained personnel will transfer the product into the drums or AST(s) by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

All totes or single-walled containers will have secondary containment with a capacity for 100 percent of the contents of the largest tank; sufficient freeboard for precipitation should be provided if the container is unsheltered and exposed to precipitation. In lieu of secondary containment, spill kits will be placed near drums without spill pallets provided that the drums are not located near storm water catch basins. If applicable, storage containers should be equipped with a pressure relief valve to reduce a buildup of pressure, which could cause leaks. Sorbent supplies, such as granular materials and absorbent pads, should be readily

available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage containers should be kept neat and clean. Used oil tanks will be emptied of contents by a used oil recycler/vendor when the tanks are determined to be full, or on a routine basis.

Emptying of Used Oil Product Drums and ASTs

Prior to emptying drums and ASTs, all valves or openings must be examined for leakage. All tank main flow valves must be securely locked in the closed position, except during emptying the contents. Used oil product transfers from the ASTs must be monitored by trained oil-handling personnel.

The procedure below will be followed to prevent an oil spill or discharge during the transferring and loading of used oil product from the ASTs to a used oil product vendor tanker truck:

1. The vendor will check in with CLT Main Terminal personnel and then be provided access to the used oil AST(s).
2. The vendor will park the tanker truck near the loading area and chock the wheels.
3. Facility personnel and/or the vendor will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur during the loading process.
4. The vendor will temporarily cover the nearest outside catch basins, which could reasonably receive oil in the event of an oil spill during loading (recognizing absorbent materials are also available if needed). The temporary cover shall consist of a rubber mat or like product that will prevent oil from entering the drain(s). The vendor will attach the hose or insert the hose within the used oil AST to begin the loading (vacuum pumping) process.
5. During the loading process, the vendor will visually monitor the liquid level in the tanker truck and shut off the flow when the AST is emptied.
6. After the used product loading process is completed, the vendor will drain the hose into the tanker truck (or, if necessary, into a portable container).
7. The drain/removal port on the used product ASTs will be closed.
8. The vendor will prepare the tanker truck for departure and check for any oil drips or leaks from under the tanker truck. If oil is observed under the truck, the vendor will take corrective actions to stop the drips or leaks and clean up the spilled oil. The vendor will then remove the wheel chocks and leave the facility.

9. The facility personnel will restock or order any materials used from the spill response equipment (i.e., spill kit).

Fueling Operations

Refer to Menzies's SPCC Plan at their facility regarding oil handling procedures related to fueling aircraft, vehicles, and equipment.

7.3.3 Special Handling Requirements for Cooking Oil Products

The spill prevention requirements summarized in Section 5 of this document apply to the handling requirements for cooking oil products. Additional requirements regarding the airport's policy pertaining to used cooking oil removal and disposal is provided below.

1. All tenants who use cooking oil in their operations are required to transport and/or dispose of the cooking oil in one of the following manners;

    a) Through use of an in-house waste oil receiver/controller based within the restaurant, that will utilize a vacuum system to remove the waste oil from the venue to a tank located outside through an approved piping system. All piping material, routing locations and tank locations are subject to CLT approval. All piping must be insulated and have heat tape installed when necessary subject to manufacturers and CLT suggestions. All new construction and Tenant Modifications must include a procedure for handling cooking oil removal and disposal. Equipment inspections shall be conducted weekly by the user, and all malfunctions shall be reported to the duty manager. The user must maintain a written record for a period of each inspection.
    b) If the in-house receiving and piping (option **a**, above) is unattainable due to distance constraints, or circumstances that CLT deems potentially unsafe to tenants and passengers, or is unsafe to vital equipment necessary for normal airport operations, then the following option can be used:

    CLT-approved cooking oil caddies that utilize a portable, sealable container on wheels, and a waste oil wand or hose connection that can be used to transport cooking oil to the closest receptacle for disposal.

Other Requirements for Option B

- A spill kit large enough to contain the maximum volume of a single container-shall be readily available and utilized immediately after a spill. The spill kit must be located in an area accessible to employees or persons who are available and capable of cleaning up spills, and must contain articles suitable for addressing cooking oils, grease, fatty solids, etc.
- Each caddie shall be equipped with white, non-marking wheels.
- Each caddie shall be inspected weekly for leaks and faulty parts. A report or general notes shall be generated of the findings and submitted to the HMS Host supervising manager. If the inspections reveal actual leaks, or other malfunctions, damages, or faulty equipment which could potentially result in the unintended loss of oil from the cart/caddie, then the subject caddy shall be deemed (by the manager) out of service and unusable immediately after the finding.
- All equipment deemed "unusable" inoperable, or otherwise out of service, as a result of the aforementioned equipment inspections and report, must be identified through a "lockout/tagout" procedure. This lockout/tagout procedure must be completed immediately (but not later than 12 hours) upon the completion and submittal of the inspection record to the supervising manager. Inspection records shall be kept on file for a minimum of one year.
- Other forms of used oil transportation equipment are prohibited.

2. All equipment shall be labeled appropriately including equipment purpose, instructions and safety labels.
3. Waste oil tanks shall be monitored by HMS Hosts and drained as needed to avoid backups and spills. Exterior waste oil tanks are considered SPCC compliance equipment under EPA's 40 CFR 112, and therefore must meet secondary containment requirements and must be part of a frequent mandated SPCC inspection and a compliance program.
4. Maintenance and operation of removal/disposal systems shall be the responsibility of the Owner and communicated to CLT staff.
5. Doors with ramp access in or surrounding the waste oil-producing unit shall be marked with signage informing staff that no waste oil is permitted on the ramp
6. Owner is to maintain training records concerning waste oil recovery and proper equipment use and operation. Each person who utilize the waste oil recovery, handling, pumping, and/or transporting equipment must attend training upon hire and subsequent

training on a bi-annual basis. New employees must complete the training within 5 business days of starting work and must not be allowed to be involved in the transporting of waste oil prior to successful completion of the required training.

7. Use of the CLT Loading Dock mop sink is prohibited in waste oil recovery processes.
8. All spills shall be reported to Airport Operations (704-359-4012) once they occur. HMS Host staff present in the vicinity of the spill should take all reasonable efforts to stop or control the spill or the spread of the spill if safe and practical to do so. Spills of 2 gallons or larger that occur exterior of the Terminal and Concourse building areas must additionally be reported to the Airport Environmental Manager at 704-793-7706 or 980-288-3793.
9. Owner shall have a clean-up plan and clean-up materials (pad and absorbents) in the case of spills so they can be rectified shortly after the occurrence. The clean-up plan is subject to inspection as part of the Airport's routine SPCC monthly inspections.
10. Failure to comply with any provision of this CLT Policy will result in a $400.00 fine plus any related cleanup costs per incident that results in spills to the Airport grounds or environment.

7.3.4 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm the CLT Airport SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the container exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Facility Maintenance will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.3.5 Facility Security Requirements

Access to the CLT Main Terminal container areas are limited by chain-link security fences, locked gates, and/or manned and/or identification card operated gates and doors. Therefore, access to the container area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the areas. The tank(s) will be opened only when a truck is unloading/loading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves, such as water draw valves, which permit direct outward flow of tank contents, are locked in a "closed" position when in non-operating or standby status.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The CLT Main Terminal is occupied 24 hours per day.

7.4 CLT Old Terminal Building

The CLT Old Terminal Building is located at 4700 Yorkmont Road. The Old Terminal Building was originally the 1950's era commercial passenger transfer facility for the airport and now consists of administrative and office spaces that are rented to tenants. The facility contains two single-walled transformers, one with an unknown quantity of oil, and one 55-gallon oil drum.

7.4.1 Oil Storage and Potential Spill Prevention

The active storage containers observed at the CLT Old Terminal Building as well as potential spill prediction and control measures are included on Table 5. Figure 7 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred.

7.4.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe containers often for leaks. Visually inspect containers monthly and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- A supply of oil-absorbent material is to be kept on-site for cleanup of small spills.

<u>Supplier Approval</u>

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

<u>Filling of Drums and ASTs</u>

Trained oil-handling personnel will perform the filling of oil and fuel storage tanks to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tanks to full capacity. The SPCC-trained personnel will transfer the product into the drums or AST(s) by

pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

All totes or single-walled containers will have secondary containment with a capacity for 100 percent of the contents of the largest tank; sufficient freeboard for precipitation should be provided if the container is unsheltered and exposed to precipitation. In lieu of secondary containment, spill kits will be placed near drums without spill pallets provided that the drums are not located near storm water catch basins. If applicable, storage containers should be equipped with a pressure relief valve to reduce a buildup of pressure, which could cause leaks. Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage containers should be kept neat and clean. Used oil tanks will be emptied of contents by a used oil recycler/vendor when the tanks are determined to be full, or on a routine basis.

Emptying of Used Oil Product Drums

Prior to emptying drums, all openings must be examined for leakage. Used oil product transfers must be monitored by trained oil-handling personnel.

The procedure below will be followed to prevent an oil spill or discharge during the transferring and loading of used oil product to a used oil product vendor truck:

1. The vendor will check in with CLT Old Terminal Building personnel and then be provided access to the used oil drum(s).
2. The vendor will park the truck near the loading area and chock the wheels.
3. Facility personnel and/or the vendor will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur during the loading process.
4. The vendor will temporarily cover the nearest outside catch basins, which could reasonably receive oil in the event of an oil spill during loading (recognizing absorbent materials are also available if needed). The temporary cover shall consist of a rubber

mat or like product that will prevent oil from entering the drain(s). The vendor will remove the used oil drum.

5. The vendor will prepare the truck for departure and check for any oil drips or leaks from under the truck. If oil is observed under the truck, the vendor will take corrective actions to stop the drips or leaks and clean up the spilled oil. The vendor will then remove the wheel chocks and leave the facility.
6. The facility personnel will restock or order any materials used from the spill response equipment (i.e., spill kit).

7.4.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the container exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

<u>Integrity Testing</u>

Not applicable.

<u>Tank Instrument Testing</u>

Not applicable.

7.4.4 Facility Security Requirements

Access to the CLT Old Terminal Building container areas are limited by chain-link security fences, locked gates, and/or manned and/or identification card operated gates and doors.

Therefore, access to the container area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the areas. In addition:

- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category, the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.5 CLT East Field Light Vault

The CLT East Field Lighting Vault is located at 5314 Morris Field Dr. and adjacent to Fire Station #17. The facility is used to control airfield lighting and, as such, utilizes a diesel-fired emergency back-up generator in case of power outages. A single 2,000-gallon diesel AST associated with the emergency back-up generator is present at the facility.

7.5.1 Oil Storage and Potential Spill Prevention

The active storage tank observed at the CLT East Field Light Vault, as well as potential spill prediction and control measures, are summarized on Table 6. Figure 8 shows the general location of container, loading and unloading area, and the anticipated direction of flow/containment if failure of the diesel fuel AST occurred. The bulk storage tank at the CLT East Field Light Vault has a fast response system for determining liquid levels to avoid discharges (i.e., personnel monitor gauges and filling).

7.5.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tank monthly at minimum for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tank, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip tank with a gauge to monitor the oil level and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.
- Bollards located around the perimeter of the oil tanks prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container must be equipped with a funnel or similar device to reduce spills during filling.

7.5.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.5.4 Facility Security Requirements

The tank area(s) is secured by fencing and/or locked valves. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents, are locked in a "closed" position when in non-operating or standby status.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.6 CLT Mid Field Light Vault

The CLT Mid Field Light Vault is located east of Runway 18C/36C and south of the CLT Main Terminal located in the central portion of the airport complex. The facility is used to control airfield lighting and, as such, utilizes a diesel-fired emergency back-up generator in case of power outages. A single 2,000-gallon diesel AST and a transformer of unknown storage capacity are present at the facility.

7.6.1 Oil Storage and Potential Spill Prevention

The active storage tanks observed at the Mid Field Light Vault, as well as potential spill prediction and control measures, are included on Table 7. Figure 9 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tank at the CLT Mid Field Light Vault has the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.6.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Shut and lock the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

- Bollards located around the perimeter of the fuel tank prevent accidental vehicle impacts and potential rupturing of the tank and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container must be equipped with a funnel or similar device to reduce spills during filling.

7.6.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and

- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.6.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of a tank contents are locked in a "closed" position when in non-operating or standby status.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.7 CLT West Field Light Vault

The CLT West Field Light Vault is located adjacent to the CLT Auxiliary Rescue Fire Fighting (ARFF) facility No. 41 near the south end of the airport. The facility is used to control airfield lighting and, as such, utilizes a diesel-fired emergency back-up generator in case of power outages. A single 6,000-gallon diesel AST and a 355-gallon transformer are present at the facility.

7.7.1 Oil Storage and Potential Spill Prevention

The active storage tank and bulk storage containers observed at the West Field Light Vault as well as potential spill prediction and control measures are included on Table 8. Figure 10 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank at the CLT West Field Light Vault has the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested

7.7.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

- Concrete barriers located around the perimeter of the fuel tank prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

7.7.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and

- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.7.4 Facility Security Requirements

The tank is secured by locked valves. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.8 Mid Field Fueling

The CLT Airport Mid Field Fueling area consists of three separate fueling areas and associated components. One portion of the facility accommodates Menzies fuel tanker trucks which are needed to provide supplementary service to the airport's aircraft gates. Another portion of the facility is available for storage and dispensing of on and off-road motor fuels including diesel fuel and gasoline. The jet fuel dispensed into the tanker trucks is provided by a single hose loading rack, which carries fuel via underground product piping from the airport's fuel farm. The motor fuels are contained in twin double-walled steel ASTs (one for diesel, one for gasoline), which in turn are situated inside concrete dikes. There is one dispenser for each product type. A transformer of unknown oil quantity also is present at the facility. Additionally, an oil water separator is present associated with the diked area. It is used exclusively to treat dike discharge effluent and is subject to the wastewater treatment exemption.

7.8.1 Oil Storage and Potential Spill Prevention

The active storage tanks and bulk storage containers observed at the Mid Field Fueling as well as potential spill prediction and control measures are included on Table 9. Figure 11 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank at the Mid Field Fueling is equipped with the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.8.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.

- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- After precipitation events, perform inspection of standing water collected within the containment area(s) for an oily sheen. Any oil will be removed by means of absorbent material, which will be properly disposed of or pumped to a container and disposed of by a used oil vendor. If no oil sheen is present, the containment area may be drained. If oil sheen is present, the water will be pumped or containerized for disposal by appropriate means. The drainage of containment areas needs to be documented per 40 CFR 112.8(c)(3)(iv) and records kept on site for at least three years. A dike water drainage log to document each release of water is included as Appendix G.
- Valves to control drainage from secondary containment areas will be unlocked and opened only after the standing water has been inspected by SPCC-trained personnel.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of vehicles and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.8.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.8.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.9 Blending Station

The Blending Station is used for blending of glycols and water for airport deicing operations. Blending to temperature is a source reduction practice aimed at reducing the volume of aircraft fluids by optimizing the deicer concentration relative to the outside temperature. Contract service providers are responsible for the implementation of blending to temperature. One 16,000-gallon diesel fuel AST is located in this area.

7.9.1 Oil Storage and Potential Spill Prevention

The active storage tank observed at the Blending Station as well as potential spill prediction and control measures are included on Table 10. Figure 12 shows the general location of container, loading and unloading area, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank at the Blending Station is equipped with the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.9.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of vehicles and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.

5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.9.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.9.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.10 American Airlines Maintenance Hanger

The American Airlines Maintenance Hanger (AAMH; former US Air Maintenance Hangar) is where routine/scheduled aircraft maintenance is performed on aircraft (i.e., flight controls, hydraulics, electrical, cabin items, engine replacement, etc.). In addition, routine/scheduled aircraft cleaning and inspections are performed. One 300-gallon recovery AST is used for storage as part of free product recovery activities (hand bailing) associated with a release of Jet A fuel to the subsurface beneath the AAMH.

7.10.1 Oil Storage and Potential Spill Prevention

The active storage tank observed at the AAMH as well as potential spill prediction and control measures are included on Table 11. Figure 13 shows the general location of container, loading and unloading area, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank is gauged with an interface probe during free product recovery activities.

7.10.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

<u>Supplier Approval</u>

Not applicable.

Filling of AST

Not applicable. The AST is used for storage as part of free product recovery activities associated with a release of Jet A fuel to the subsurface beneath the AAMH.

Fueling Operations

Not applicable. Jet A fuel is removed from the recovery storage tank on an as-needed basis.

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.

During Fuel Transfer

1. Constantly monitor the liquid level in the receiving tank to prevent overflow.
2. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Secure all hatches.

7.10.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.10.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.11 "T"-Point Service Area

Baggage Transfer-Point (T-Point) Service area is located adjacent to the northwest of Concourse E of CLT Main Terminal. The facility is used to fuel Ground Support Equipment (GSE) and other motor vehicles. A split 12,000-gallon double-walled tank (8,000-gallon diesel and 4,000-gallon MOGAS), a 310-gallon transformer, and an oil water separator are present at the "T"-Point Service area. The service area also includes four load racks for filling jet fuel tankers which, in turn, load aircraft at their gates.

7.11.1 Oil Storage and Potential Spill Prevention

The active storage tanks and bulk storage containers observed at the "T"-Point Service Area as well as potential spill prediction and control measures are included on Table 12. Figure 14 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank at the "T"-Point Service Area is equipped with the following devices to avoid discharges:

- High-level alarm;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.11.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.

- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of vehicles and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.11.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);

- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.11.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.12 CLT Fire Station #41

The previously noted as CLT Auxiliary Rescue Fire Fighting (ARFF) facility, now Fire Station #41 (FS-41) is located adjacent to the West Field Lighting Vault near the south end of the airport complex. The facility is used to provide emergency response and rescue services for the airport complex. An 800-gallon double-walled emergency generator belly tank, a 3,000-gallon double-walled diesel AST, and a transformer of unknown quantity are present at the facility.

7.12.1 Oil Storage and Potential Spill Prevention

The active storage tanks (oil-filled operational equipment) observed at the FS-41 facility as well as potential spill prediction and control measures are included on Table 13. Figure 10 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The emergency generator fuel tank at the FS-41 facility has a fast response system for determining liquid levels to avoid discharges (i.e., personnel monitor gauges and filling). The bulk storage tank at the CLT Fire Station #41 is equipped with the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.12.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.

- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.
- Concrete barriers located around the perimeter of the fuel tank prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the emergency generator fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges.

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage tanks should be kept neat and clean.

7.12.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.12.4 Facility Security Requirements

The fill port to the emergency generator tank is secured by a lock as are the storage tank valves. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The CLT Fire Station #41 facility is occupied 24 hours per day.

7.13 CLT Fire Station #17

Fire Station #17 facility (FS17) is located directly north of the East Field Lighting Vault. The facility is used to provide emergency services for the airport complex. A 500-gallon double-walled AST for the emergency generator, a 2,000-gallon double-walled diesel AST, and a single-walled transformer of unknown quantity are present at the facility, as well as an oil/water separator.

7.13.1 Oil Storage and Potential Spill Prevention

The active storage tanks (oil-filled operational equipment) observed at the FS-17 facility as well as potential spill prediction and control measures are included on Table 14. Figure 15 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The emergency generator fuel tank at the FS-17 facility has a fast response system for determining liquid levels to avoid discharges (i.e., personnel monitor gauges and filling).

7.13.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

<u>Supplier Approval</u>

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the emergency generator fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges.

Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for spill kit contents). The area near the storage tanks should be kept neat and clean.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of vehicles and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.13.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.13.4 Facility Security Requirements

The fill port to the emergency generator tank is secured by a lock. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The CLT Fire Station #17 facility is occupied 24 hours per day.

7.14 CLT Police Helicopter Pad

The CLT Police Helicopter Pad facility provides mechanical maintenance, fueling and storage for the Charlotte/Mecklenburg Police helicopters. Occasionally, the Carolinas HealthCare System helicopter is also stored and fueled at this facility. The site contains two 10,000-gallon ASTs, which were installed in 1998. These tanks are used to store aviation fuel for the helicopters. The facility also includes a 163-gallon transformer, a 55-gallon drum of used oil, an oil/water separator associated with the diked area which is used exclusively for treating dike discharge effluent with a fill alarm, and five "juncture boxes" which hold the pipe junctures for fueling of the helicopters.

7.14.1 Oil Storage and Potential Spill Prevention

The active storage tanks observed at the CLT Police Helicopter Pad as well as potential spill prediction and control measures are included on Table 15. Figure 16 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tanks at the CLT Police Helicopter Pad facility have the following devices to avoid discharges:

- Fast response system for determining liquid level; personnel monitor gauges and filling and
- Liquid level sensing devices regularly tested.

7.14.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks and juncture boxes often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, juncture boxes and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Shut and lock the main outlet valve on each tank when the facility is unattended.

- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- After precipitation events, perform inspection of standing water collected within the secondary containment area(s) for an oily sheen. Any oil will be removed by means of absorbent material, which will be properly disposed of or pumped to a container and disposed of by a used oil vendor. If no oil sheen is present, the containment area may be drained. If oil sheen is present, the water will be pumped or containerized for disposal by appropriate means. The drainage of secondary containment areas needs to be documented per 40 CFR 112.8(c)(3)(iv) and records kept on site for at least three years. A dike water drainage log to document each release of water is included as Appendix G.
- Valves to control drainage from secondary containment areas will be unlocked and opened only after the standing water has been inspected by SPCC-trained Facility personnel.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of ASTs

Trained oil-handling personnel will perform the filling of oil and fuel storage tanks to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tanks to full capacity. The SPCC-trained personnel will transfer the product into AST(s) by pneumatic/electric pumps, gravity flow, and/or pouring. Direct visual gauges or high liquid level alarms will be used to properly fill the AST and minimize the chances of overfilling. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

Sorbent supplies, such as granular materials and absorbent pads, should be readily available to clean up any spills that occur during fill procedures (see Section 5.0 and Appendix B for

spill kit contents). The area near the storage tanks should be kept neat and clean. Used oil tanks will be emptied of contents by a used oil recycler/vendor when the tanks are determined to be full, or on a routine basis.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of aircraft and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.
4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement

8. Cap the end of the hoses before moving them to prevent leakage
9. Remove wheel chocks
10. Remove spill mats or other controls and place back in their original location
11. Inspect the lowermost drain and all outlets on vehicle prior to departure

7.14.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs and juncture boxes for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.14.4 Facility Security Requirements

The tank area(s) is secured by fencing and/or locked valves. In addition, access to the tank area(s) is limited to CLT Airport or Charlotte-Mecklenburg Police Department personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading/loading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves, such as water draw valves, which permit direct outward flow of tank contents, are locked in a "closed" position when in non-operating or standby status. Oil and fuel storage tank valves are locked closed when the site is unattended.
- Starter controls on all oil pumps in non-operating or standby status are locked "closed" and installed at a location accessible only to authorized personnel.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.
- The CLT Police Helicopter Pad is staffed 24 hours per day by CMPD personnel.

7.15 Honeywell Corporate Aircraft Hangar

7.15.1 Oil Storage and Potential Spill Prevention

The active storage tanks observed at the Honeywell Corporate Aircraft Hangar located at 4672 First Flight Drive, as well as potential spill prediction and control measures, are included on Table 16. Figure 17 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The emergency generator tank at the Honeywell Corporate Hangar has the following devices to avoid discharges:

- Fast response system for determining liquid level; personnel monitor gauges and filling and
- Liquid level sensing devices regularly tested.

7.15.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- After precipitation events, perform inspection of standing water collected within the secondary containment area(s) for an oily sheen. Any oil will be removed by means of absorbent material, which will be properly disposed of or pumped to a container and disposed of by a used oil vendor. If no oil sheen is present, the containment area may be drained. If oil sheen is present, the water will be pumped or containerized for disposal by appropriate means. The drainage of secondary containment areas needs to be documented per 40 CFR 112.8(c)(3)(iv) and records kept on site for at least three years. A dike water drainage log to document each release of water is included as Appendix G.

- Valves to control drainage from secondary containment areas will be unlocked and opened only after the standing water has been inspected under SPCC-trained Carolinas Aviation Museum personnel.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of ASTs

Trained oil-handling personnel will perform the filling of oil and fuel storage tanks to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tanks to full capacity. The SPCC-trained personnel will transfer the product into the drums or AST(s) by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. Drums and storage containers must be equipped with a funnel or similar device to reduce spills during filling.

7.15.3 Inspections, Integrity Testing, and Recordkeeping Practices

The facility will conduct monthly inspections to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;

- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.15.4 Facility Security Requirements

The tank area(s) is secured by fencing and/or locked valves. The tank(s) will be opened only when a truck is unloading/loading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves, such as water draw valves, which permit direct outward flow of tank contents, are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- Starter controls on dispensers in non-operating or standby status are locked "closed" and installed at a location accessible only to authorized personnel.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.16 Valet Parking Decks I & II

The Valet Parking Decks I & II are located adjacent to the CLT Building facility near the north end of the airport complex. The decks are used to provide parking for employees, visitors and contractors. A single emergency generator and a single transformer are located on the east side of the Parking Deck I. A single emergency generator and a single transformer are located on the southwest side of the Parking Deck II.

7.16.1 Oil Storage and Potential Spill Prevention

The active storage tank and bulk storage containers observed at the Valet Parking Decks as well as potential spill prediction and control measures are included on Table 17. Figure 18 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The bulk storage tank at the Valet Parking Deck has the following devices to avoid discharges:

- High-level alarms;
- Fast response system for determining liquid level; personnel monitor gauges and filling; and
- Liquid level sensing devices regularly tested.

7.16.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.

- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.
- Concrete barriers located around the perimeter of the fuel tank prevent accidental vehicle impacts and potential rupturing of the tanks and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

7.16.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and

- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.16.4 Facility Security Requirements

The tank is secured by locked valves. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.17 CLT Yorkmont Road Maintenance Area

CLT Yorkmont Road Maintenance Area is a supporting airport maintenance equipment and supply staging area for the performance of specialized maintenance for the City's airport facility to help ensure the airport grounds, runways, buildings, and equipment comply with Federal Aviation Administration (FAA) regulations. The site contains one out-of-service 8,000-gallon diesel fuel AST and two 100-gallon diesel totes on a mobile cart used to fuel airport maintenance equipment.

7.17.1 Oil Storage and Potential Spill Prevention

The active storage tanks and bulk storage containers observed at the CLT Yorkmont Road Maintenance Area as well as potential spill prediction and control measures are included on Table 18. Figure 19 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. The out-of-service bulk storage tank at the CLT Yorkmont Road Maintenance Area is equipped with the following device to avoid discharges:

- Fast response system for determining liquid level

7.17.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, berms, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Lock shut the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauge prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container is equipped with a funnel or similar device to reduce spills during filling.

Fueling Operations

Trained oil-handling personnel must monitor the fueling of vehicles and equipment to ensure proper filling procedures are followed and the tanks are not overfilled. The procedure below will be followed to prevent a fuel or oil spill or discharge during the transferring and loading of fuel:

Prior to Transfer

1. Verify that sufficient volume (freeboard) is available in the storage tank.
2. Secure the vehicle with wheel chocks; set parking brake.
3. Visually check all hoses and fittings for leaks, wet spots, or damage.
4. Verify proper alignment of valves and proper functioning of the pumps.
5. Ensure that secondary containment and spill response controls are in place.
6. Establish adequate bonding/grounding prior to connection.

During Fuel Transfer

1. Shut off the vehicle engine unless it is used to operate a pump.
2. Stay with the vehicle at all times during transfer activities.
3. Periodically inspect all systems, hoses, and connections.

4. Keep valves on the receiving tank open along with the pressure relief valves.
5. Constantly monitor the liquid level in the receiving tank to prevent overflow.
6. Monitor flow meters to determine rate of flow.
7. Facility personnel will use the spill response equipment (i.e. spill kit; see Section 5.0 and Appendix B) to control any minor spills that may occur.
8. When topping off the tank, reduce flow rate to prevent overflow.

After Transfer

1. Make sure the transfer operation is completed.
2. Close all tank and loading valves before disconnecting.
3. Securely close the vehicle's valves before disconnecting.
4. Secure all hatches.
5. Disconnect grounding/bonding wires.
6. Completely drain all hoses before disconnecting and moving them away from the connection.
7. Use a drip pan to prevent spills from reaching the pavement.
8. Cap the end of the hoses before moving them to prevent leakage.
9. Remove wheel chocks.
10. Remove spill mats or other controls and place back in their original location.
11. Inspect the lowermost drain and all outlets on vehicle prior to departure.

7.17.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.17.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of tank contents are locked in a "closed" position when in non-operating or standby status. Fuel storage tank valves are locked closed when the site is unattended.
- The facility has no piping that is not in service or in standby service for an extended time. At such time that any piping at this facility should fall into this category the piping shall be capped or blank flanged at the terminal point and marked as to the origin.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

7.18 Cargo Area

The Cargo Area is located at 4100 Yorkmont Road. The facility is used to transfer parcels between ground and air. Loads are moved to or from aircraft and are subject to examination by airport authorities. A single 75-gallon diesel fuel sub-base AST (emergency generator) is present at the facility.

7.18.1 Oil Storage and Potential Spill Prevention

The active storage tank observed at the Cargo Area, as well as potential spill prediction and control measures, are included on Table 19. Figure 20 shows the general location of containers, loading and unloading areas, and the anticipated direction of flow/containment if failure of an oil products storage container/equipment occurred. Bulk storage tank at the Cargo Area has the following method to avoid discharges:

- Personnel monitor filling.

7.18.2 General Oil Handling Procedures

Facility operations are expected to be performed in a manner to prevent leakage and spills of oils, fuels, and other oil products. The following practices are recommended:

- Observe tanks often for leaks from piping, tank seams, valves, fittings, gaskets, rivets, and bolts.
- Visually inspect tanks, valves, and pumps monthly, and maintain a record of the inspection (Appendix F) at the facility for a period of three years.
- Equip each tank with a gauge to monitor oil levels and with vents adequate for fill and withdrawal rates or show that visual observations by oil-handling personnel during filling are adequate overfill protection.
- Shut and lock the main outlet valve on each tank when the facility is unattended.
- Cap and lock receiving funnel and pipe connections as well as withdrawal standpipe or discharge ports when not in use.
- A supply of oil-absorbent material will be kept on-site for cleanup of small spills.
- Bollards located around the perimeter of the fuel tank prevent accidental vehicle impacts and potential rupturing of the tank and/or piping.

Supplier Approval

All oil product suppliers must meet the minimum requirements and regulations for tank truck unloading as established by the USDOT. CLT Airport will also ensure that all suppliers understand the site layout, know the protocol for entering the site and unloading product, and have the necessary spill equipment on board to respond to a spill from the vehicle or fuel delivery hose.

Filling of AST

Trained oil-handling personnel will perform the filling of the fuel storage tank to ensure proper filling procedures are followed. Filling procedures include checking tank level sight gauges prior to filling; the potential for overflow is minimized by not filling the tank to full capacity. The SPCC-trained personnel will transfer the product into the AST by pneumatic/electric pumps, gravity flow, and/or pouring. The person filling the AST must be careful not to overfill the tank, using direct visual gauges or high liquid level alarms. The storage container must be equipped with a funnel or similar device to reduce spills during filling.

7.18.3 Inspections, Integrity Testing, and Recordkeeping Practices

Monthly inspections will be conducted to confirm this SPCC Plan is being properly implemented and maintained. These inspections will cover all applicable oil product ASTs and associated piping connections for evidence of leakage and deterioration.

The monthly inspection procedures will be performed by SPCC-trained personnel using the form in Appendix F and will include:

- Inspecting all secondary containment structures and interstitial spaces on double-walled ASTs for the presence of water or oil (if equipped or accessible);
- Visually inspecting the tank exterior for damage and corrosion;
- Inspecting and cleaning the normal operating and emergency vents on the ASTs (if equipped or accessible);
- Inspecting the tank supports/foundations for signs of deterioration; and
- Verifying that spill control equipment is available at the facility. The monthly inspection records will be maintained by CLT Airport for a minimum of three years.

Integrity Testing

If AST integrity testing is determined to be appropriate based on monthly inspections, CLT Airport will take steps necessary to verify the integrity of each bulk container, piping, and valves. Integrity testing will be conducted in accordance with STI – SP001-03 or other applicable industry standards and retained in Appendix I.

Tank Instrument Testing

Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. The test results will be indicated on the inspection form (Appendix F), placed in Appendix I, and retained by CLT Airport for a minimum of three years.

7.18.4 Facility Security Requirements

Due to its location within the CLT Airport (near airport runways), access to the tank area(s) is limited to CLT Airport personnel who have been issued the appropriate badge to access the area. The tank(s) will be opened only when a truck is unloading or when the SPCC-trained oil-handling personnel are present. In addition:

- Any tank valves which permit direct outward flow of a tank contents are locked in a "closed" position when in non-operating or standby status.
- The lighting for the facility consists of street and flood lights located on or near buildings. The lighting is adequate and must be maintained for facility operations and spill response.

Tables

Table 1
Recommended Corrective Actions
CLT Facilities

LOCATION (material)	MAP ID NO.	TOTAL QUANTITY (gallons)	Recommended Corrective Actions	Corrective Action Anticipated Date of Completion	Corrective Action Completion Date
CMPD Helipad	HP5, HP6	20,000	Leaking in juncture boxes approximately 1 gallon/per year from previous dispenser nozzle release. Lines were tightness tested to confirm they are not leaking.	8/5/2017	8/5/2017
Main Terminal - Concourse E	E3	250	Rip in AST. AST was repaired with a reinforcement sleeve.	11/9/2018	11/19/2018
CLT Field Maintenance	FM6, FM7, FM8	---	Increase dike walls to contain maximum total failure of largest AST (260 gallons) in addition to the local rain fall amount (5.76"). Total wall height needed, minimum: 7.66"	8/18/2018	AST permanently closed and removed.
Main Terminal - Food Service Area	FS1	---	Increase dike walls to contain maximum total failure of largest AST (259 gallons) in addition to the local rain fall amount (5.76"). Total wall height needed, minimum: 12.25" Note the tanks were replaced with two new 300-gallon vertical double-walled tanks.	7/29/2017	AST permanently closed and removed. Replacement AST installed.
Blending Station	BS1	---	Place lock on tank fill box; place lock on drain of tank fill box to prevent unauthorized discharge.	9/6/2019	9/6/2019

Note: Refer to Appendix K for photographic log of corrective actions

Table 2
Potential Spills Prediction and Control
Old CLT Fleet Maintenance

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Fueling Area (Diesel Fuel)	OFM1	Tank Rupture	8,000	Instantaneous	West/Southwest	Double-walled tank; implement contingency plan
Fueling Area (Diesel Fuel)	OFM2	Tank Rupture	8,000	Instantaneous	West/Southwest	Double-walled tank; implement contingency plan
Fueling Area (Gasoline)	OFM3	Tank Rupture	8,000	Instantaneous	West/Southwest	Double-walled tank; implement contingency plan
Oil/Water Separator	Exempt per CFR 40 Part 112.1 (d) (6) oil water separator purpose is to treat wastewater. Exempt per EPA Final SPCC Rule Fact Sheet EPA 540-F-02-005 dated August 2002, oil/water separator is subject to all technical requirements of the Underground Storage Tank rules (40 CFR part 280 or 281)					

Note: Refer to Figure 4 for oil storage locations.

Table 3
Potential Spills Prediction and Control
New CLT Fleet Maintenance

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Maintenance Shop (Motor Oil)	NFM1	Tank Rupture	250	Instantaneous	South/ Southeast	Double-walled tank; implement contingency plan
Maintenance Shop (Motor Oil)	NFM2	Tank Rupture	250	Instantaneous	South/ Southeast	Implement contingency plan; implement contingency plan
Maintenance Shop (Motor Oil)	NFM3	Tank Rupture	250	Instantaneous	West/ Southwest	Double-walled tank; implement contingency plan
Maintenance Shop (Transmission Oil)	NFM4	Tank Rupture	250	Instantaneous	West/ Southwest	Double-walled tank; implement contingency plan
Maintenance Shop (Used Oil)	NFM5	Tank Rupture	250	Instantaneous	West/ Southwest	Double-walled tank; implement contingency plan
Oil/Water Separator	Exempt per CFR 40 Part 112.1 (d) (6) oil water separator purpose is to treat wastewater. Exempt per EPA Final SPCC Rule Fact Sheet EPA 540-F-02-005 dated August 2002, oil/water separator is subject to all technical requirements of the Underground Storage Tank rules (40 CFR part 280 or 281)					

Note: Refer to Figure 5 for oil storage locations.

Table 4
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Concourse A (Used Oil, Skydroll Oil)	A1	Drum Rupture	(2) 55-gal. drums	Instantaneous	North	Secondary containment pallet
Concourse A Emergency Generator (Diesel Fuel)	A2	Tank Rupture	774	Instantaneous	North	Double-walled tank; Implement contingency plan
Concourse A (Transformer Oil)	A3	Tank Rupture	399	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Concourse A (Used Cooking Oil)	A4	Tank Rupture	500	Instantaneous	North	Double-walled tank; Implement contingency plan
Concourse A (Transformer Oil)	A5	Tank Rupture	(2) transformers, oil capacity not noted on transformers	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Concourse A Expansion Emergency Generator (Diesel Fuel)	A6	Tank Rupture	4,350	Instantaneous	West	Double-walled tank; Implement contingency plan
Concourse A Expansion (Transformer Oil)	A7	Tank Rupture	572	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Concourse A Expansion (Transformer Oil)	A7	Tank Rupture	572	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Concourse A Expansion (Used Oil)	A8	Tank Rupture	275	Instantaneous	North	Implement contingency plan
Concourse A Expansion (Used Cooking Oil)	A9	Tank Rupture	500	Instantaneous	North	Double-walled tank; Implement contingency plan

Table 4 (cont'd)
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Concourse A Expansion (Transformer Oil)	A10	Tank Rupture	393	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Concourse B (Transformer Oil)	B1	Tank Rupture	599	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Concourse B (Transformer Oil)	B1	Tank Rupture	599	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Concourse B (Transformer Oil)	B1	Tank Rupture	599	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Concourse B (Used Oil)	B2	Tank Rupture	250	Instantaneous	West	Secondary containment basin
Concourse B (Transformer Oil)	B3	Tank Rupture	611	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Concourse B (Turbo Oil)	B4	Drum Rupture	(6) 55-gal. drums	Instantaneous	West	Secondary containment pallet
Concourse B Emergency Generator (Diesel Fuel)	B5	Tank Rupture	408	Instantaneous	Contained	Double-walled concrete tank
Concourse B (Turbo Oil)	B6	Drum Rupture	(4) 55-gal. drums	Instantaneous	East	Secondary containment pallet
Concourse B (Used Cooking Oil)	B7	Tank Rupture	300	Instantaneous	East	Double-walled tank; Implement contingency plan

Table 4 (cont'd)
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Concourse B (Turbo Oil)	B8	Drum Rupture	(5) 55-gal. drums	Instantaneous	East	Secondary containment pallet
Concourse B (Turbo Oil)	B9	Drum Rupture	(4) 55-gal. drums	Instantaneous	East	Currently Empty
Concourse B (Turbo Oil)	B9	Drum Rupture	(16) 55-gal. drums	Instantaneous	East	New shrink-wrapped on wood pallets
Concourse C (Used Oil)	C1	Tank Rupture	250	Instantaneous	West	Secondary containment basin
Concourse C (Turbo Oil)	C2	Drum Rupture	(4) 55-gal. drums	Instantaneous	West	Secondary containment pallet
Concourse C (Used Cooking Oil)	C3	Tank Rupture	1,000	Instantaneous	West	Double-walled tank; Implement contingency plan
Concourse C (Used Cooking Oil)	C4	Tank Rupture	300	Instantaneous	West	Double-walled tank; Implement contingency plan
Concourse C (Access Vault)	C5	Pipe Leaking	Unknown	Instantaneous	East	Access vault, Implement contingency plan
Concourse C (Diesel Fuel)	C6	Tank Rupture	500	Instantaneous	Contained	Double-walled concrete tank
Concourse C (Turbo Oil)	C7	Drum Rupture	(5) 55-gal. drums	Instantaneous	East	Secondary containment pallet
Concourse C (Transformer Oil)	C8	Tank Rupture	554	Instantaneous	East	Implement contingency plan; contact Duke Power for cleanup
Concourse C (Transformer Oil)	C8	Tank Rupture	539	Instantaneous	East	Implement contingency plan; contact Duke Power for cleanup
Concourse C (Transformer Oil)	C8	Tank Rupture	539	Instantaneous	East	Implement contingency plan; contact Duke Power for cleanup

Table 4 (cont'd)
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Concourse C (Turbo Oil)	C9	Drum Rupture	(4) 55-gal. drums	Instantaneous	South	Absorbent material in vicinity
Concourse C (Cooking Oil)	C10	Tank Rupture	300	Instantaneous	South	Double-walled tank; Implement contingency plan
Concourse C Emergency Generator (Diesel Fuel)	C11	Tank Rupture	402	Instantaneous	South	Double-walled tank; Implement contingency plan
Concourse D (Turbo Oil)	D1	Drum Rupture	(7) 55-gal. drums	Instantaneous	South	Secondary containment pallet
Concourse D (Used Oil)	D2	Tank Rupture	250	Instantaneous	South	Secondary containment basin
Concourse D (Turbo Oil)	D3	Drum Rupture	(7) 55-gal. drums	Instantaneous	East	Secondary containment pallet
Concourse D (Transformer Oil)	D4	Tank Rupture	677	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Concourse D Emergency Generator (Diesel Fuel)	D5	Tank Rupture	450	Instantaneous	North	Double-walled tank; Implement contingency plan
Concourse D (Used Cooking Oil)	D6	Tank Rupture	300	Instantaneous	North	Double-walled tank; Implement contingency plan
Concourse D (Transformer Oil)	D7	Tank Rupture	663	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Concourse E (Transformer Oil)	E1	Tank Rupture	657	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Concourse E Emergency Generator (Diesel Fuel)	E2	Tank Rupture	450	Instantaneous	South	Double-walled tank; Implement contingency plan
Concourse E (Used Food Oil)	E3	Tank Rupture	300	Instantaneous	East	Double-walled tank; Implement contingency plan

Table 4 (cont'd)
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Concourse E (Used Food Oil)	E4	Tank Rupture	300	Instantaneous	East	Double-walled tank; Implement contingency plan
Concourse E (Access Vault)	E5	Pipe Leaking	Unknown	Instantaneous	East	Access vault, Implement contingency plan
Concourse E (Transformer Oil)	E6	Tank Rupture	277	Instantaneous	East	Implement contingency plan; contact Duke Power for cleanup
Concourse E (Transformer Oil)	E7	Tank Rupture	393	Instantaneous	East	Implement contingency plan; contact Duke Power for cleanup
Northeast of Main Concourse (Transformer Oil)	MT1	Tank Rupture	508	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
West Side of Main Concourse (Transformer Oil)	MT1	Tank Rupture	495	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
East Side of Main Concourse Emergency Generator (Diesel Fuel Fuel)	MT2	Tank Rupture	600	Instantaneous	South	Double-walled tank; Implement contingency plan
Northeast of Main Concourse (Transformer Oil)	MT3	Tank Rupture	663	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Northeast of Main Concourse Emergency Generator (Diesel Fuel)	MT4	Tank Rupture	660	Instantaneous	North	Implement contingency plan
Northeast of Main Concourse (Transformer Oil)	MT5	Tank Rupture	554	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
West of Main Concourse Emergency Generator (Diesel Fuel)	MT6	Tank Rupture	800	Instantaneous	South	Double-walled tank; Implement contingency plan

Table 4 (cont'd)
Potential Spills Prediction and Control
CLT Main Terminal

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Northeast of Main Concourse (Transformer Oil)	J2	Tank Rupture	372	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Northeast of Main Concourse (Transformer Oil)	J3	Tank Rupture	423	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup
Food Service Area (Transformer Oil)	FS1 (17)	Tank Rupture	277	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Food Service Area (Transformer Oil)	FS1 (18)	Tank Rupture	277	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Food Service Area (Transformer Oil)	FS1 (19)	Tank Rupture	277	Instantaneous	West	Implement contingency plan; contact Duke Power for cleanup
Food Service Area (Spent Cooking Oil)	FS1	Tank Rupture	300	Instantaneous	West	Double-walled; implement cleanup activities
Food Service Area (Spent Cooking Oil)	FS1	Tank Rupture	300	Instantaneous	West	Double-walled; implement cleanup activities

Note: Refer to Figure 6 for oil storage locations.

Table 5
Potential Spills Prediction and Control
Old Terminal Building

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Old Terminal Building (55-gallon drum, used oil)	OTB1	Drum Rupture	(1) 55-gal. drums	Instantaneous	East	Absorbent material in vicinity
Old Terminal Building (Transformer Oil)	OTB2	Tank Rupture	327	Instantaneous	Laterally around pad, Northeast	Implement contingency plan; contact Duke Power for cleanup
Old Terminal Building (Transformer Oil)	OTB3	Tank Rupture	Unknown	Instantaneous	Laterally around pad, Northeast	Implement contingency plan; contact Duke Power for cleanup

Note: Refer to Figure 7 for oil storage locations.

Table 6
Potential Spills Prediction and Control
CLT East Field Light Vault

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
East Field Light Vault (Diesel Fuel)	EFLV1	Tank Rupture	2,000	Instantaneous	Contained	Double-walled tank; implement contingency plan

Note: Refer to Figure 8 for oil storage locations.

Table 7
Potential Spills Prediction and Control
CLT Mid Field Light Vault

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Mid Field Light Vault (Diesel Fuel)	MFLV1	Tank Rupture	2,000	Instantaneous	North	Double-walled tank; implement contingency plan
Mid Field Light Vault (Transformer Oil)	MFLV2	Tank Rupture	Unknown	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup

Note: Refer to Figure 9 for oil storage locations.

Table 8
Potential Spills Prediction and Control
CLT West Field Light Vault

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
West Field Light Vault (Transformer Oil)	WFLV1	Tank Rupture	355	Instantaneous	Laterally around pad	Implement contingency plan; contact Duke Power for cleanup
West Field Light Vault (Diesel Fuel)	WFLV2	Tank	6,000	Instantaneous	Contained	Double-walled tank; implement contingency plan

Note: Refer to Figure 10 for oil storage locations.

Table 9
Potential Spills Prediction and Control
Mid Field Fueling

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Mid Field Fuel (Gasoline)	MFF1	Tank Rupture	12,000	Instantaneous	East	Double-walled tank; implement contingency plan; Dike around tanks
Mid Field Fuel (Diesel Fuel)	MFF2	Tank Rupture	12,000	Instantaneous	East	Double-walled tank; implement contingency plan; Dike around tanks
Mid Field Fuel (Transformer Oil)	MFF3	Tank Rupture	Unknown	Instantaneous	Laterally around pad, and then east	Implement contingency plan; contact Duke Power for cleanup
Mid Field Fuel (Diesel Fuel)	MFF4	Tank Rupture	2,000	Instantaneous	Northeast	Double-walled tank; implement contingency plan
Mid Field Fuel (Transformer Oil)	MFF5	Tank Rupture	283	Instantaneous	Laterally around pad, and then north	Implement contingency plan; contact Duke Power for cleanup
Oil/Water Separator	Exempt per EPA Final SPCC Rule Fact Sheet EPA 540-F-02-005 dated August 2002, oil/water separator is subject to all technical requirements of the Underground Storage Tank rules (40 CFR part 280 or 281)					

Note: Refer to Figure 11 for oil storage locations.

Table 10
Potential Spills Prediction and Control
Blending Station

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Blending Station (Diesel Fuel)	BS1	Tank Rupture	16,000	Instantaneous	South	Double-walled tank; implement contingency plan

Note: Refer to Figure 12 for oil storage locations.

Table 11
Potential Spills Prediction and Control
American Airlines Maintenance Hanger

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
American Airlines Maintenance Hanger Recovery Tank (Diesel Fuel)	AAMH1	Tank Rupture	300	Instantaneous	Northwest	Double-walled tank; implement contingency plan

Note: Refer to Figure 13 for oil storage locations.

Table 12
Potential Spills Prediction and Control
"T"-Point Service Area

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
T-Point (Diesel Fuel/ Mogas)	TP1	Tank Rupture	12,000	Instantaneous	South	Double-walled tank; implement contingency plan
T-Point (Transformer Oil)	TP2	Tank Rupture	310	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Oil/Water Separator	Exempt per EPA Final SPCC Rule Fact Sheet EPA 540-F-02-005 dated August 2002, oil/water separator is subject to all technical requirements of the Underground Storage Tank rules (40 CFR part 280 or 281)					

Note: Refer to Figure 14 for oil storage locations.

Table 13
Potential Spills Prediction and Control
CLT Fire Station #41

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
CLT Fire Station #41 Emergency Generator (Diesel Fuel)	AF1	Tank Rupture	800	Instantaneous	Laterally around pad	Double-walled tank; Implement contingency plan
CLT Fire Station #41 Fueling (Diesel Fuel)	AF2	Tank Rupture	3,000	Instantaneous	Northeast	Double-walled tank; Implement contingency plan
CLT Fire Station #41 (Transformer Oil)	AF3	Tank Rupture	Unknown	Instantaneous	Laterally around pad	Implement contingency plan; contact Duke Power for cleanup

Note: Refer to Figure 10 for oil storage locations.

Table 14
Potential Spills Prediction and Control
CLT Fire Station #17

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
CLT Fire Station #17 Generator Fuel Tank (Diesel Fuel)	FS17-1	Tank Rupture	500	Instantaneous	East	Double-walled tank; Implement contingency plan
CLT Fire Station #17 Fueling Area (Diesel Fuel)	FS17-2	Tank Rupture	2,000	Instantaneous	East	Double-walled tank; Implement contingency plan
CLT Fire Station #17 (Transformer Oil)	FS17-3	Tank Rupture	Unknown	Instantaneous	Laterally around pad	Implement contingency plan; contact Duke Power for cleanup
Oil/Water Separator	Exempt per CFR 40 Part 112.1 (d) (6) oil water separator purpose is to treat wastewater.					

Note: Refer to Figure 15 for oil storage locations.

Table 15
Potential Spills Prediction and Control
CLT Police Helicopter Pad

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Helicopter Pad (Jet A)	HP1	Tank Rupture	10,000	Instantaneous	Contained	Secondary containment dike
Helicopter Pad (Jet A)	HP2	Tank Rupture	10,000	Instantaneous	Contained	Secondary containment dike
Juncture Box	HP3	Pipe Leak/Rupture	Unknown	Instantaneous	Contained	Contained-in box
Juncture Box	HP4	Pipe Leak/Rupture	Unknown	Instantaneous	Contained	Contained-in box
Juncture Box	HP5	Pipe Leak/Rupture	Unknown	Instantaneous	Contained	Contained-in box
Juncture Box	HP6	Pipe Leak/Rupture	Unknown	Instantaneous	Contained	Contained-in box
Juncture Box	HP7	Pipe Leak/Rupture	Unknown	Instantaneous	Contained	Contained-in box
55-gallon waste oil drum	HP8	Drum Rupture	(1) 55-gal. drum	Instantaneous	Laterally around floor	Secondary Containment Pallet
Helicopter Pad (Transformer Oil)	HP9	Tank Rupture	163	Instantaneous	Laterally around pad	Implement contingency plan; contact Duke Power for cleanup
Oil/Water Separator	Exempt per EPA Final SPCC Rule Fact Sheet EPA 540-F-02-005 dated August 2002, oil/water separator is subject to all technical requirements of the Underground Storage Tank rules (40 CFR part 280 or 281)					

Note: Refer to Figure 16 for oil storage locations.

Table 16
Potential Spills Prediction and Control
Honeywell Corporate Aircraft Hangar

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Honeywell Emergency Generator (Diesel Fuel)	HW1	Tank Rupture	3,800	Instantaneous	Northeast, east	Double-walled tank; implement contingency plan
Honeywell (Transformer Oil)	HW2	Tank Rupture	282	Instantaneous	Laterally around pad	Implement contingency plan; contact Duke Power for cleanup

Note: Refer to Figure 17 for oil storage locations.

Table 17
Potential Spills Prediction and Control
Business Valet Parking Decks I & II

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Eastern Parking Deck Generator (Diesel Fuel)	EP1	Tank Rupture	850	Instantaneous	South	Double-walled tank; Implement contingency plan
Eastern Parking Deck Transformer (Transformer Oil)	EP2	Tank Rupture	250	Instantaneous	South	Implement contingency plan; contact Duke Power for cleanup
Western Parking Deck Generator (Diesel Fuel)	WP1	Tank Rupture	706	Instantaneous	North	Double-walled tank; Implement contingency plan
Western Parking Deck Transformer (Transformer Oil)	WP2	Tank Rupture	195	Instantaneous	North	Implement contingency plan; contact Duke Power for cleanup

Note: Refer to Figure 18 for oil storage locations.

Table 18
Potential Spills Prediction and Control
CLT Yorkmont Road Maintenance Area

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Yorkmont Road Out-of-Service (Diesel Fuel)	YR1	Tank Rupture	8,000	Instantaneous	Laterally	Double-walled tank; implement contingency plan
Yorkmont Road (Diesel Fuel)	YR2	Tank Rupture	100	Instantaneous	Laterally	Double-walled tank; implement contingency plan
Yorkmont Road (Diesel Fuel)	YR3	Tank Rupture	100	Instantaneous	Laterally	Double-walled tank; implement contingency plan

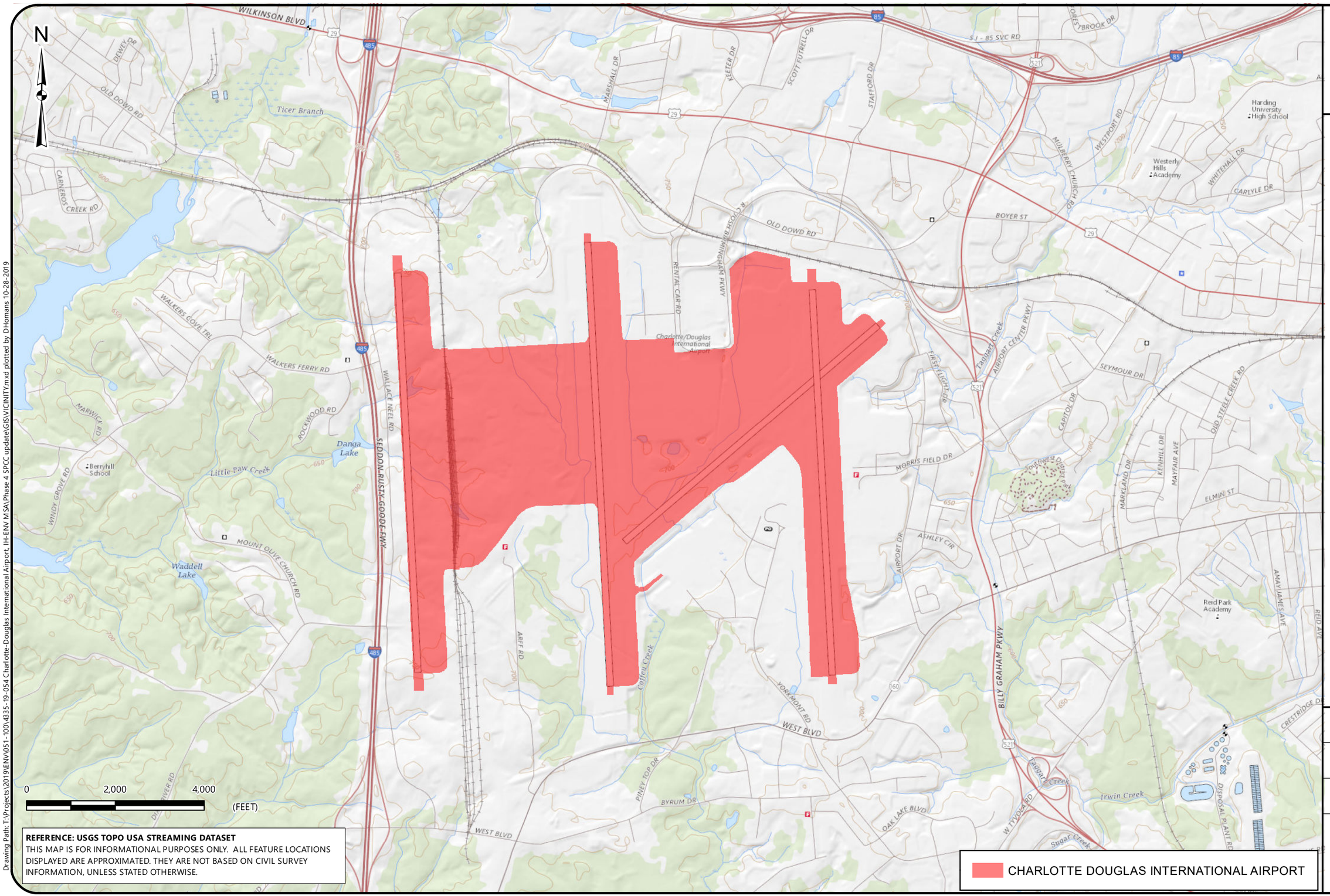
Note: Refer to Figure 19 for oil storage locations.

Table 19
Potential Spills Prediction and Control
Cargo Area

LOCATION (material)	MAP ID NO.	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (gallons)	RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT CONTROL PROCEDURE
Cargo Area Emergency Generator (Diesel Fuel)	CA1	Tank Rupture	75	Instantaneous	East	Double-walled tank; implement contingency plan

Note: Refer to Figure 20 for oil storage locations.

Figures



REFERENCE: USGS TOPO USA STREAMING DATASET
THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

SITE VICINITY

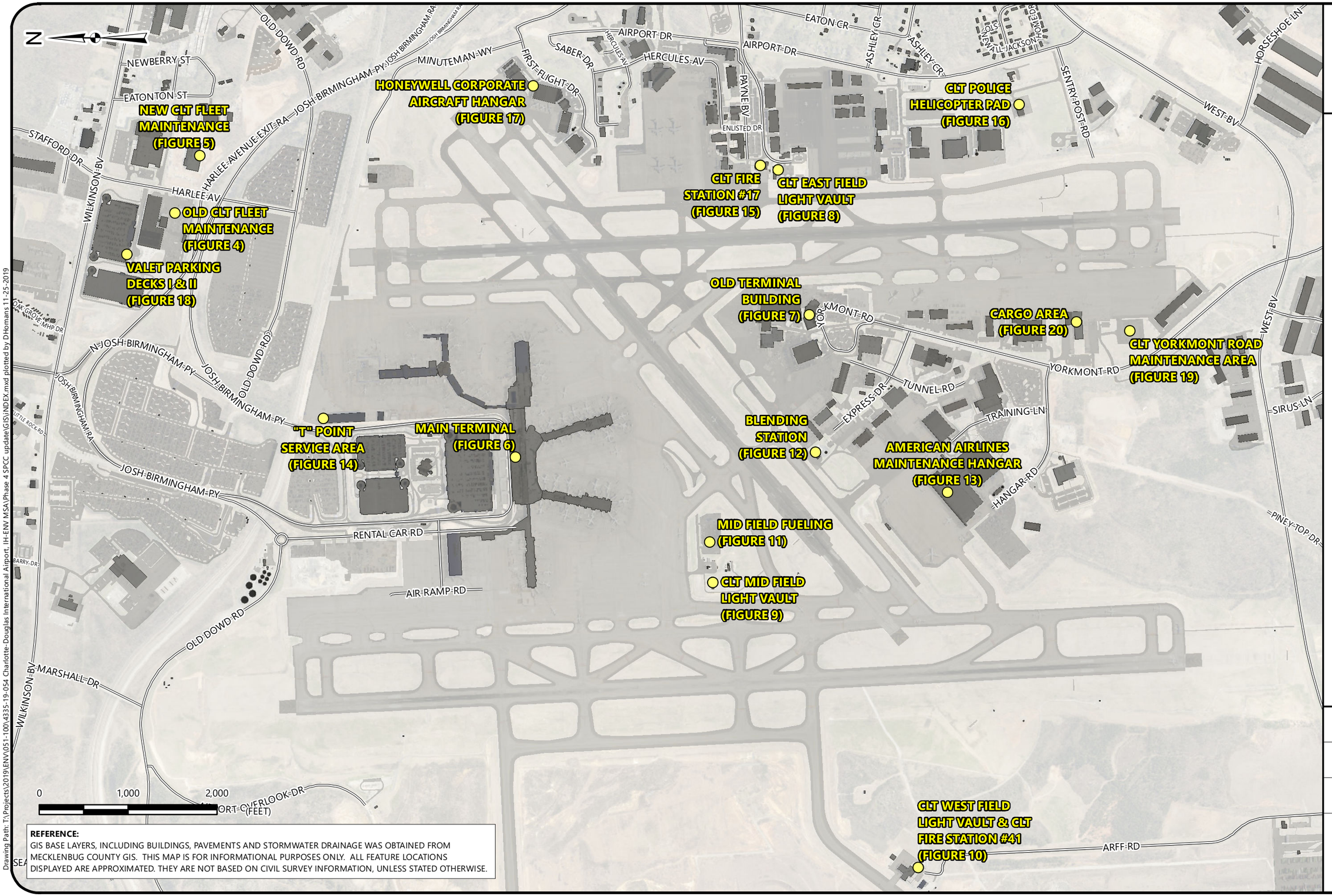
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 2,000 '

DATE:
10-28-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
1



REFERENCE:
GIS BASE LAYERS, INCLUDING BUILDINGS, PAVEMENTS AND STORMWATER DRAINAGE WAS OBTAINED FROM MECKLENBUG COUNTY GIS. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

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OVERVIEW MAP

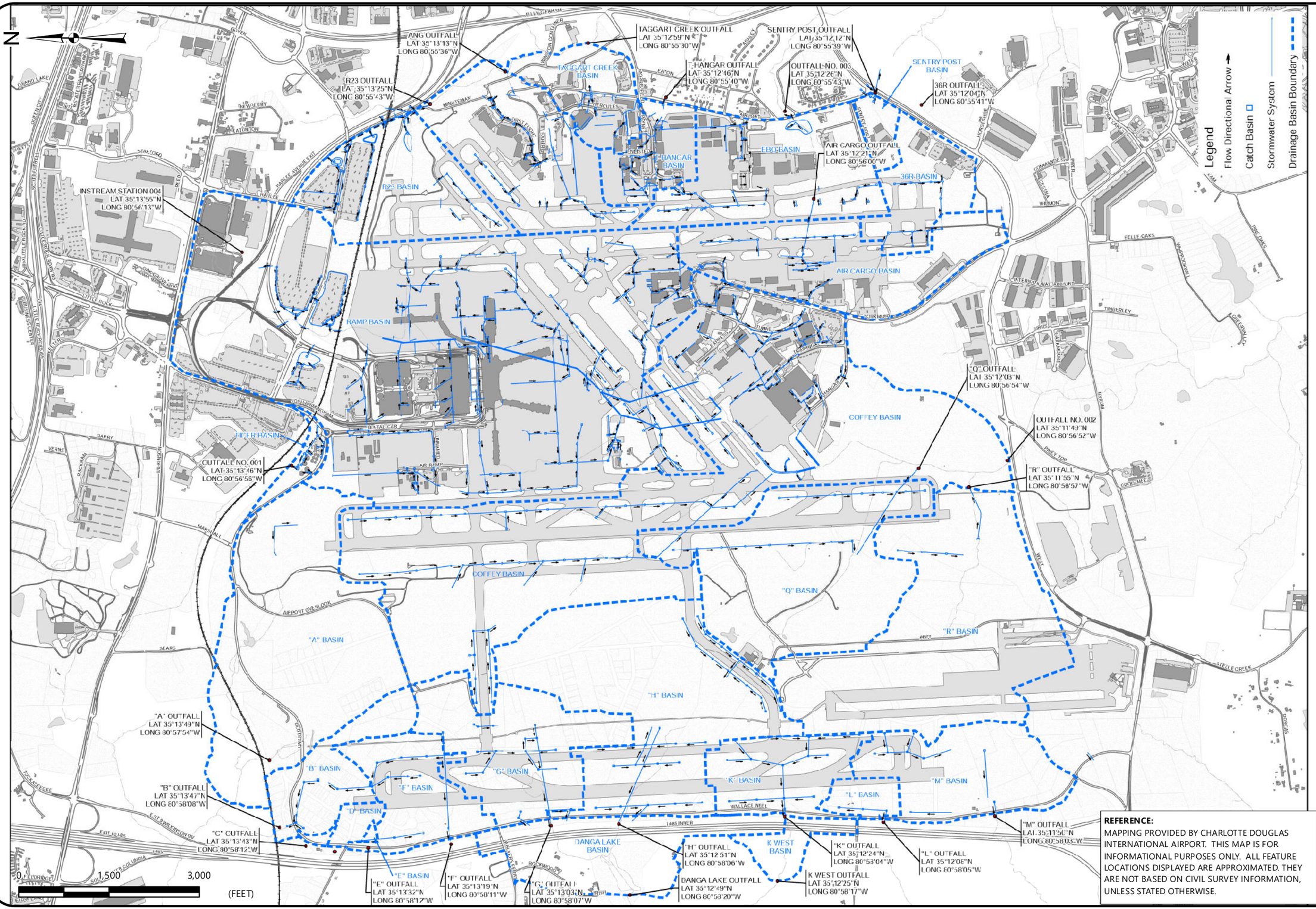
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 1,000 '

DATE:
11-25-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
2



REFERENCE:
MAPPING PROVIDED BY CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

SITE DRAINAGE BASIN MAP

SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

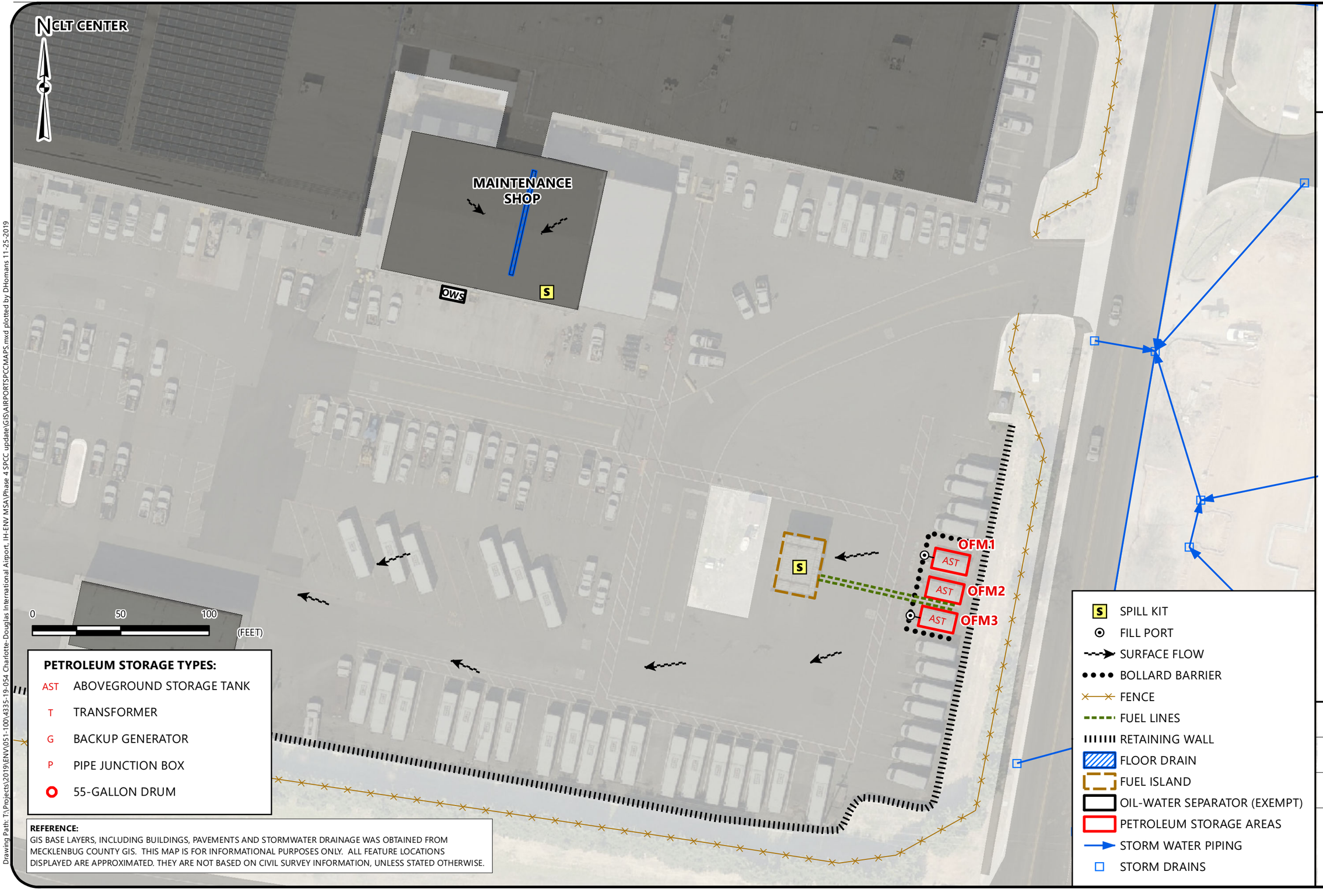
SCALE:
1 " = 1,500 '

DATE:
10-28-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
3

Drawing Path: T:\Projects\2019\ENV\051 - 100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\DRAINAGES.mxd plotted by DHomans 10-28-2019



OLD CLT FLEET MAINTENANCE

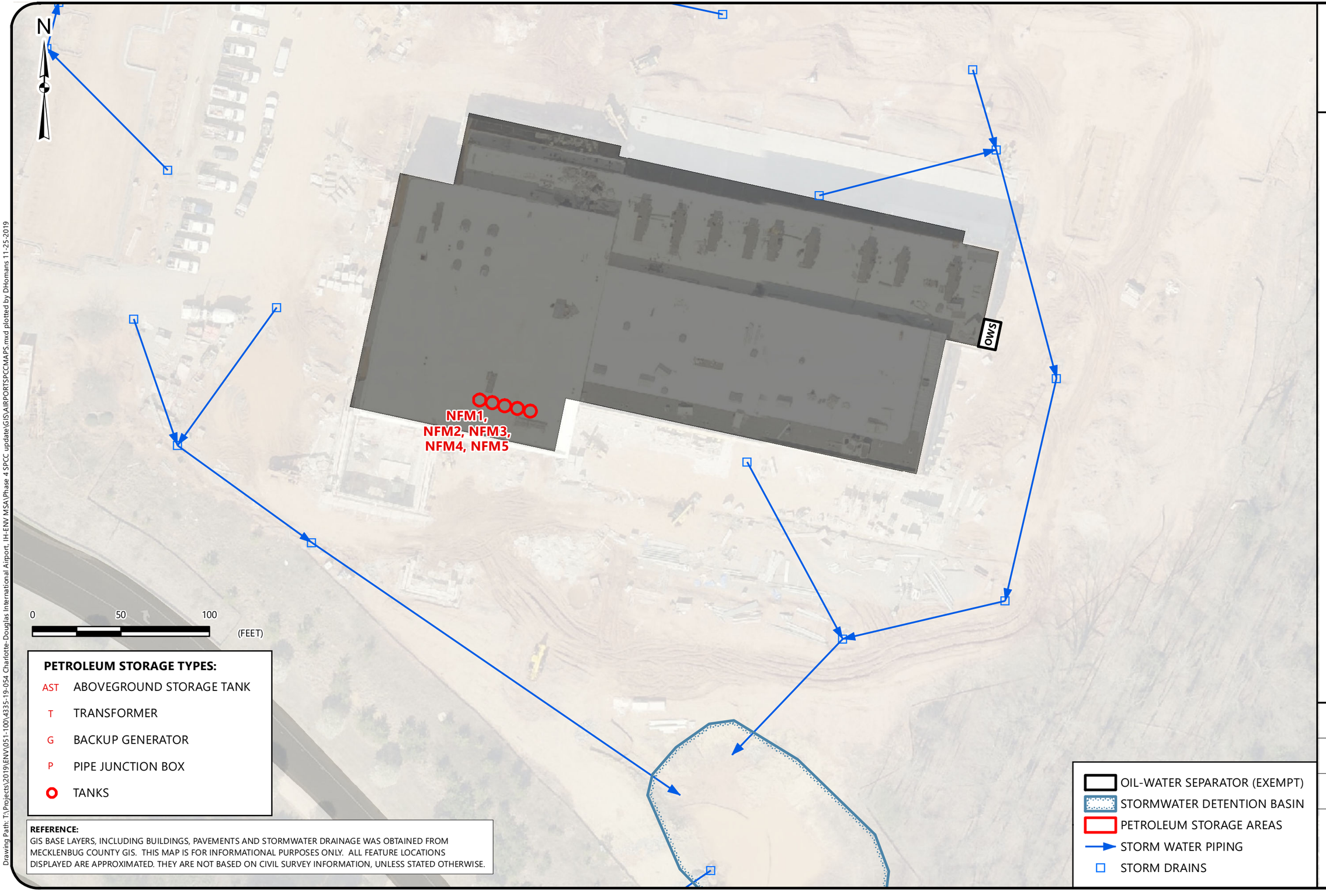
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 50 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
4



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NEW CLT FLEET MAINTENANCE

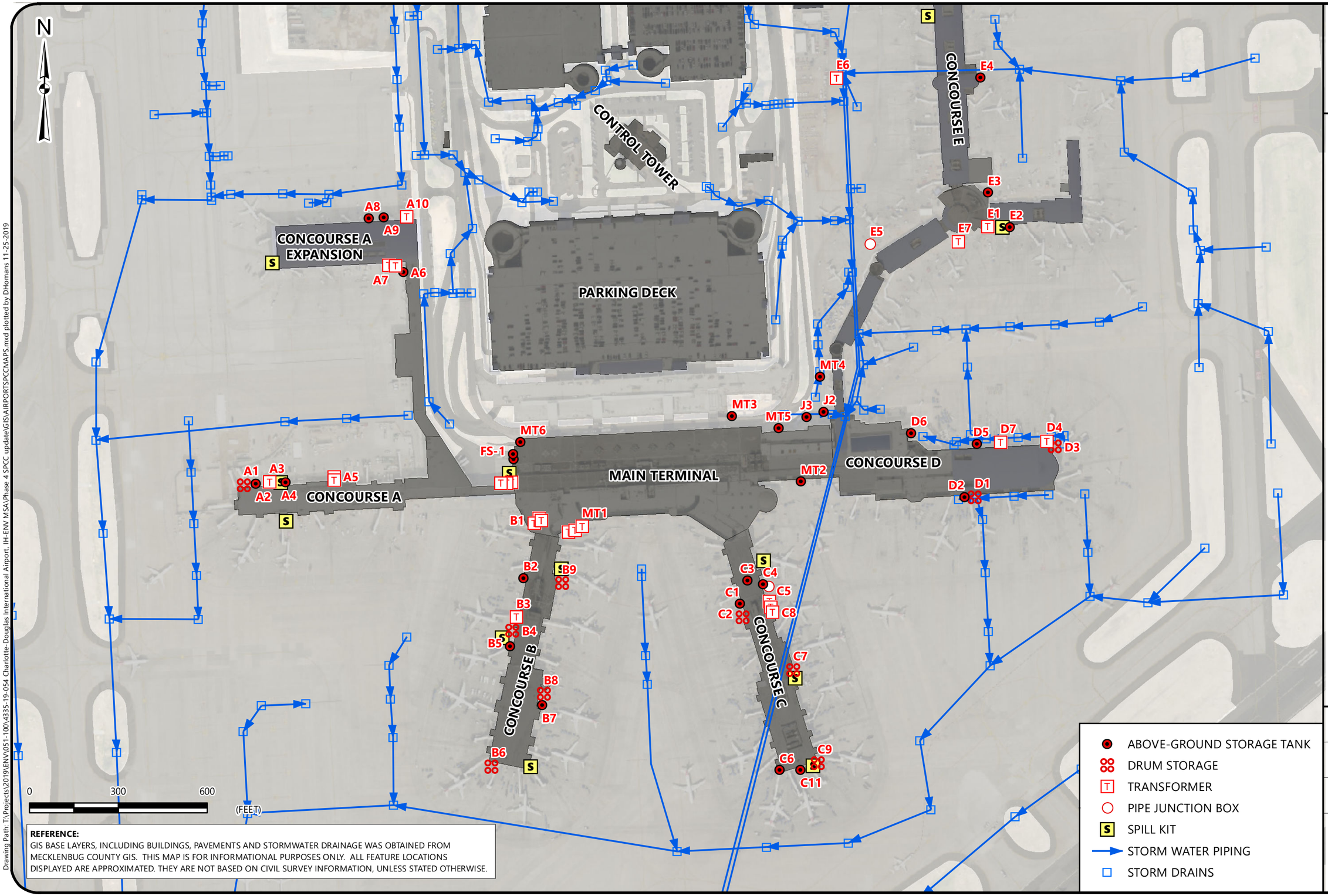
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 50 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
5



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MAIN TERMINAL

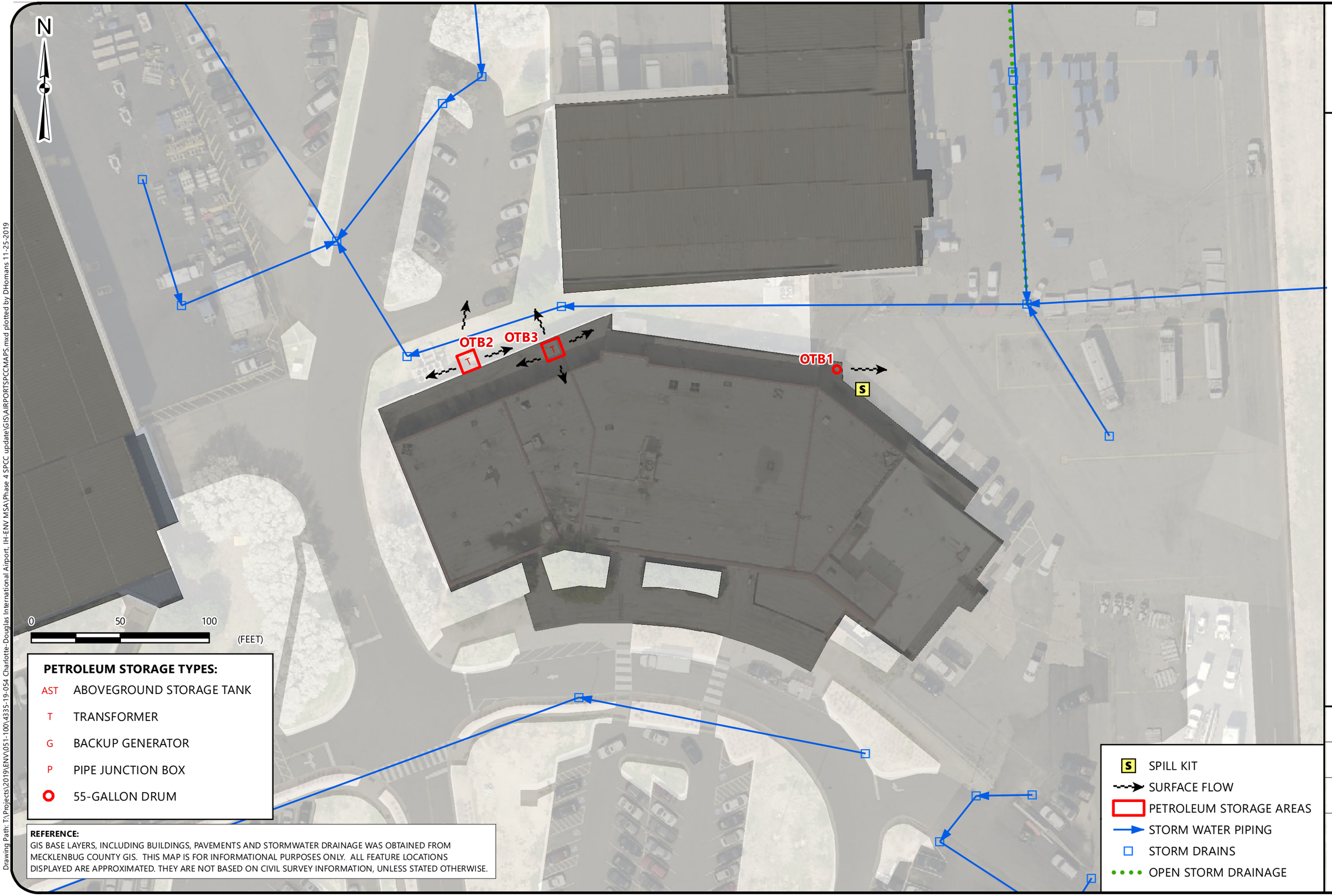
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 300 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
6



PETROLEUM STORAGE TYPES:

- AST — ABOVEGROUND STORAGE TANK
- T — TRANSFORMER
- G — BACKUP GENERATOR
- P — PIPE JUNCTION BOX
- 55-GALLON DRUM

REFERENCE:
GIS BASE LAYERS, INCLUDING BUILDINGS, PAVEMENTS AND STORMWATER DRAINAGE WAS OBTAINED FROM MECKLENBUG COUNTY GIS. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

- S — SPILL KIT
- SURFACE FLOW
- PETROLEUM STORAGE AREAS
- STORM WATER PIPING
- STORM DRAINS
- OPEN STORM DRAINAGE

OLD TERMINAL BUILDING

SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

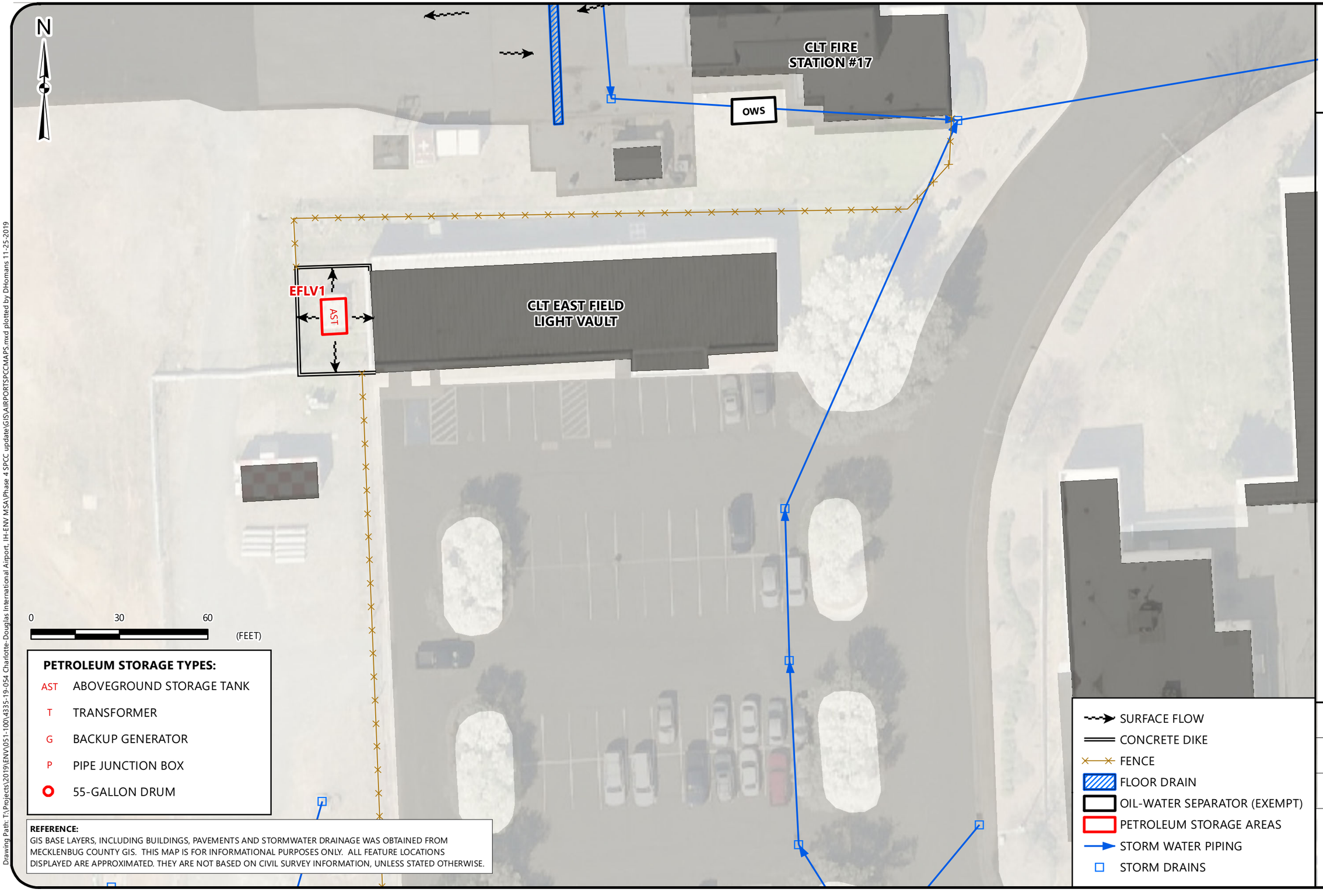
SCALE: 1 " = 50 '

DATE: 10-30-19

PROJECT NUMBER: 4335-19-054

FIGURE NO.: 7

Drawing Path: T:\Projects\2019\ENV\051-100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\AIRPORTSPCCMAPS.mxd plotted by DHomans 11-25-2019



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CLT EAST FIELD LIGHT VAULT

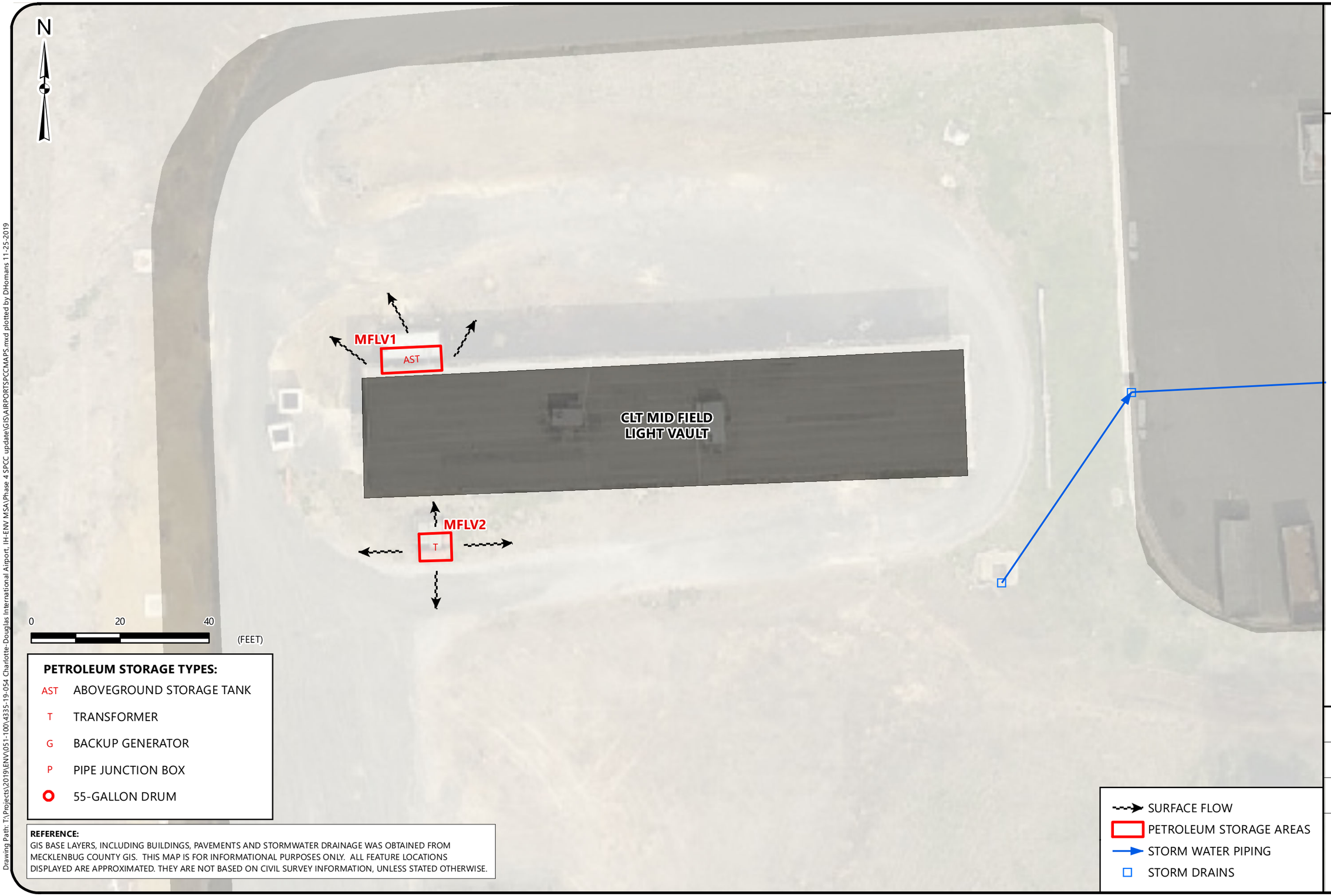
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 30 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
8



PETROLEUM STORAGE TYPES:

- AST — ABOVEGROUND STORAGE TANK
- T — TRANSFORMER
- G — BACKUP GENERATOR
- P — PIPE JUNCTION BOX
- 55-GALLON DRUM

REFERENCE:
GIS BASE LAYERS, INCLUDING BUILDINGS, PAVEMENTS AND STORMWATER DRAINAGE WAS OBTAINED FROM MECKLENBUG COUNTY GIS. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

- SURFACE FLOW
- PETROLEUM STORAGE AREAS
- STORM WATER PIPING
- STORM DRAINS

CLT MID FIELD LIGHT VAULT

SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

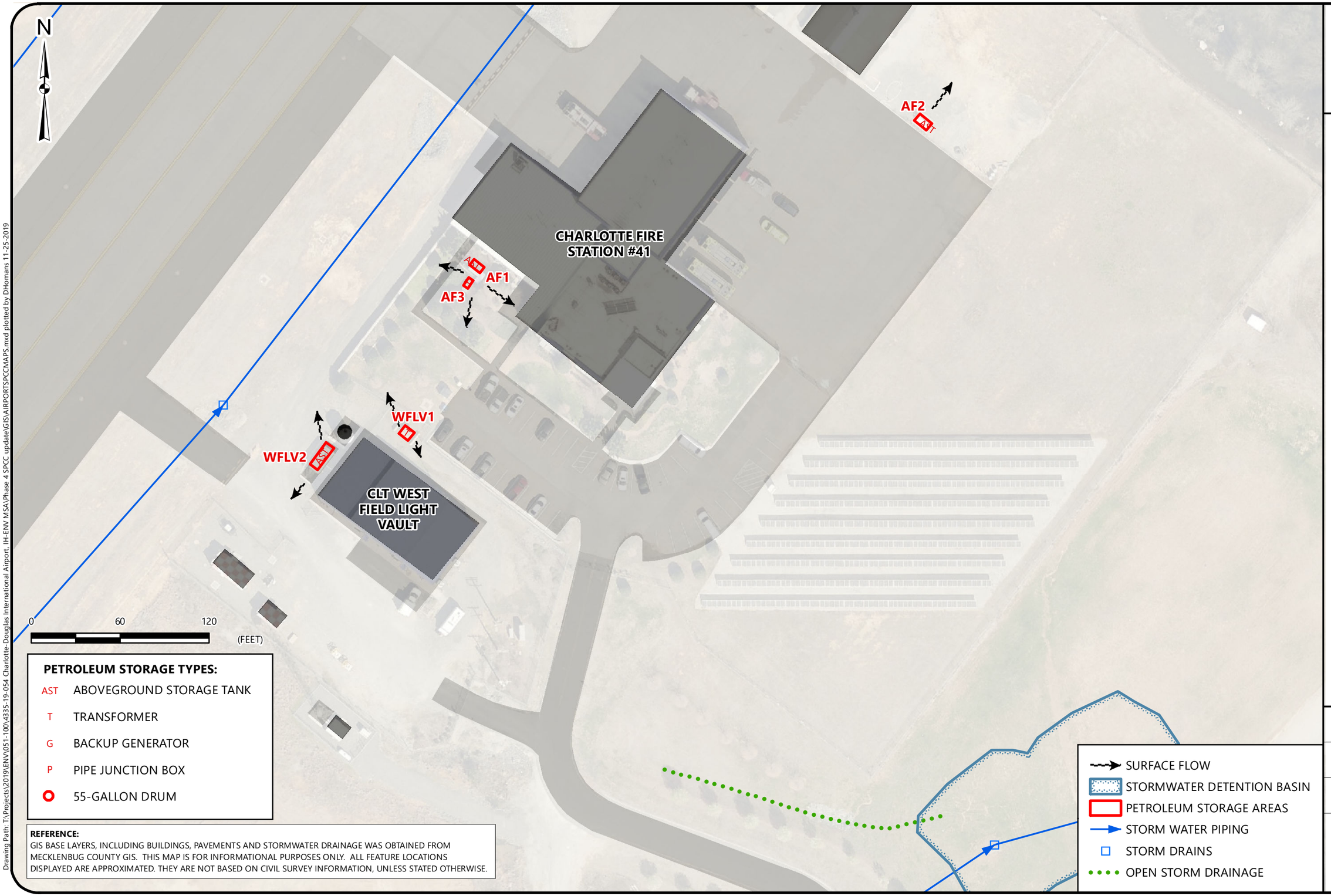
SCALE: 1 " = 20 '

DATE: 10-30-19

PROJECT NUMBER: 4335-19-054

FIGURE NO.: 9

Drawing Path: T:\Projects\2019\ENV\051-100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\AIRPORTSPCCMAPS.mxd plotted by DHomans 11-25-2019



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CLT WEST FIELD LIGHT VAULT & CLT FIRE STATION #41

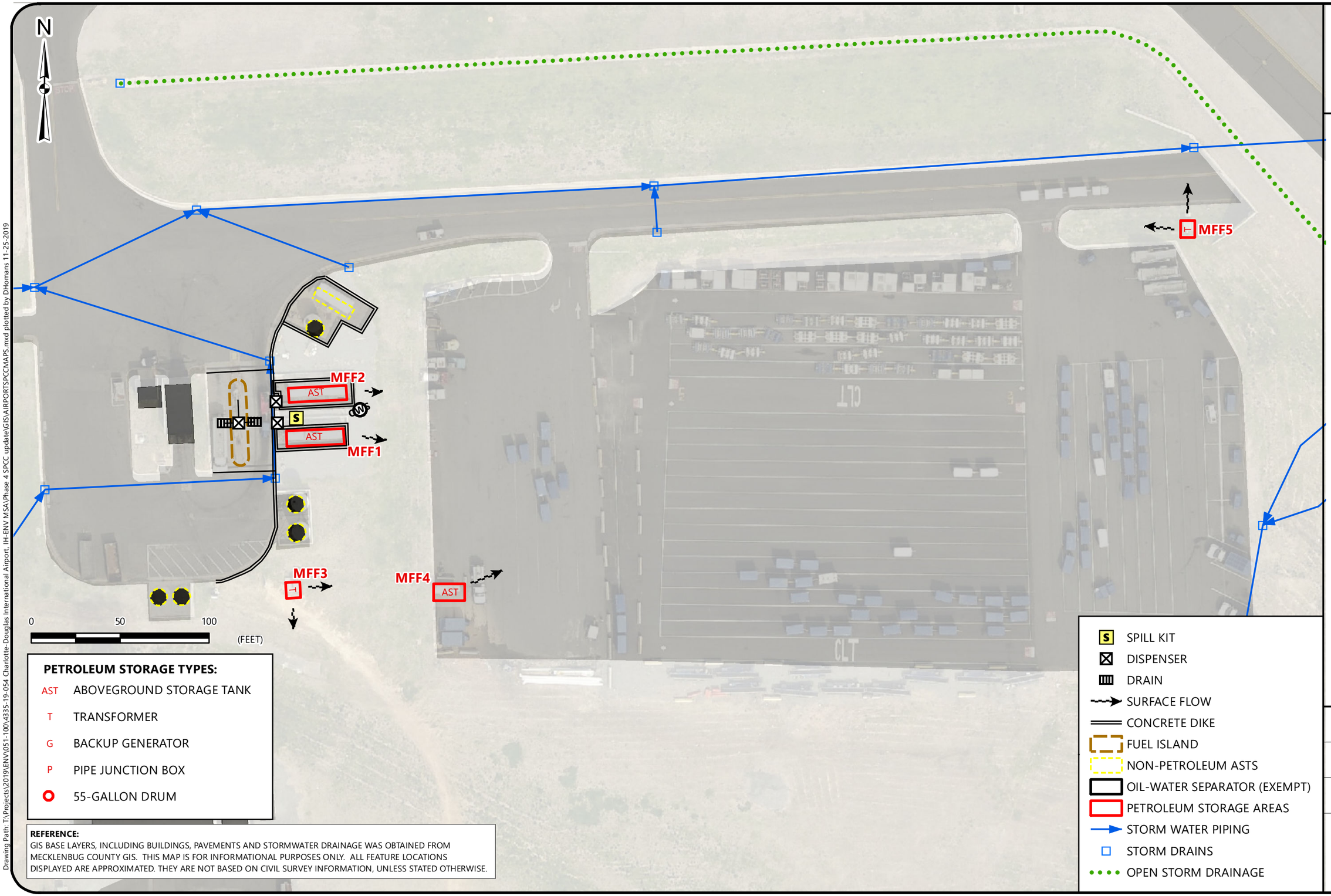
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 60 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
10



PETROLEUM STORAGE TYPES:

AST	ABOVEGROUND STORAGE TANK
T	TRANSFORMER
G	BACKUP GENERATOR
P	PIPE JUNCTION BOX
	55-GALLON DRUM

REFERENCE:
GIS BASE LAYERS, INCLUDING BUILDINGS, PAVEMENTS AND STORMWATER DRAINAGE WAS OBTAINED FROM MECKLENBUG COUNTY GIS. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

- SPILL KIT
- DISPENSER
- DRAIN
- SURFACE FLOW
- CONCRETE DIKE
- FUEL ISLAND
- NON-PETROLEUM ASTS
- OIL-WATER SEPARATOR (EXEMPT)
- PETROLEUM STORAGE AREAS
- STORM WATER PIPING
- STORM DRAINS
- OPEN STORM DRAINAGE

MID FIELD FUELING

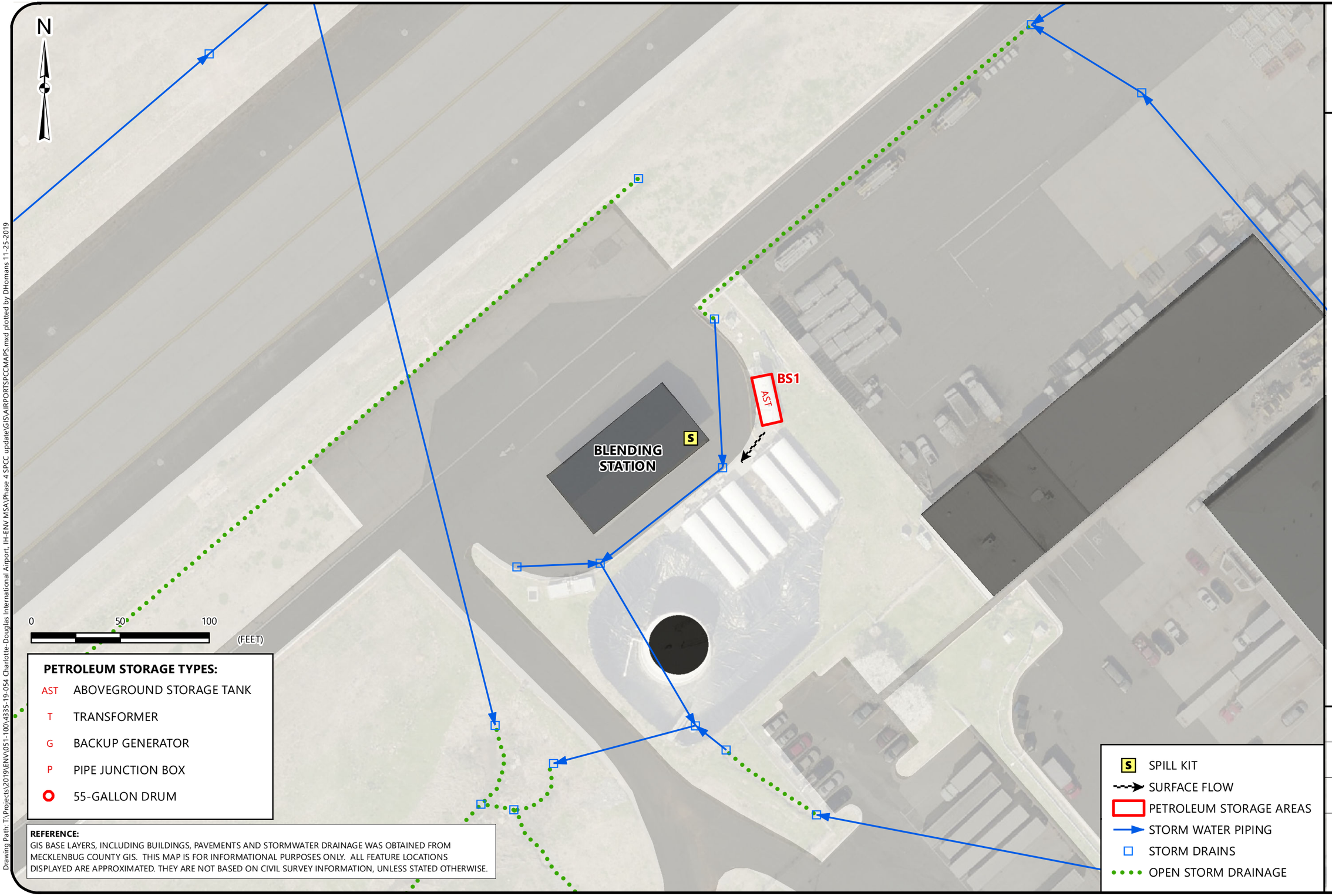
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 50 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
11



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BLENDING STATION

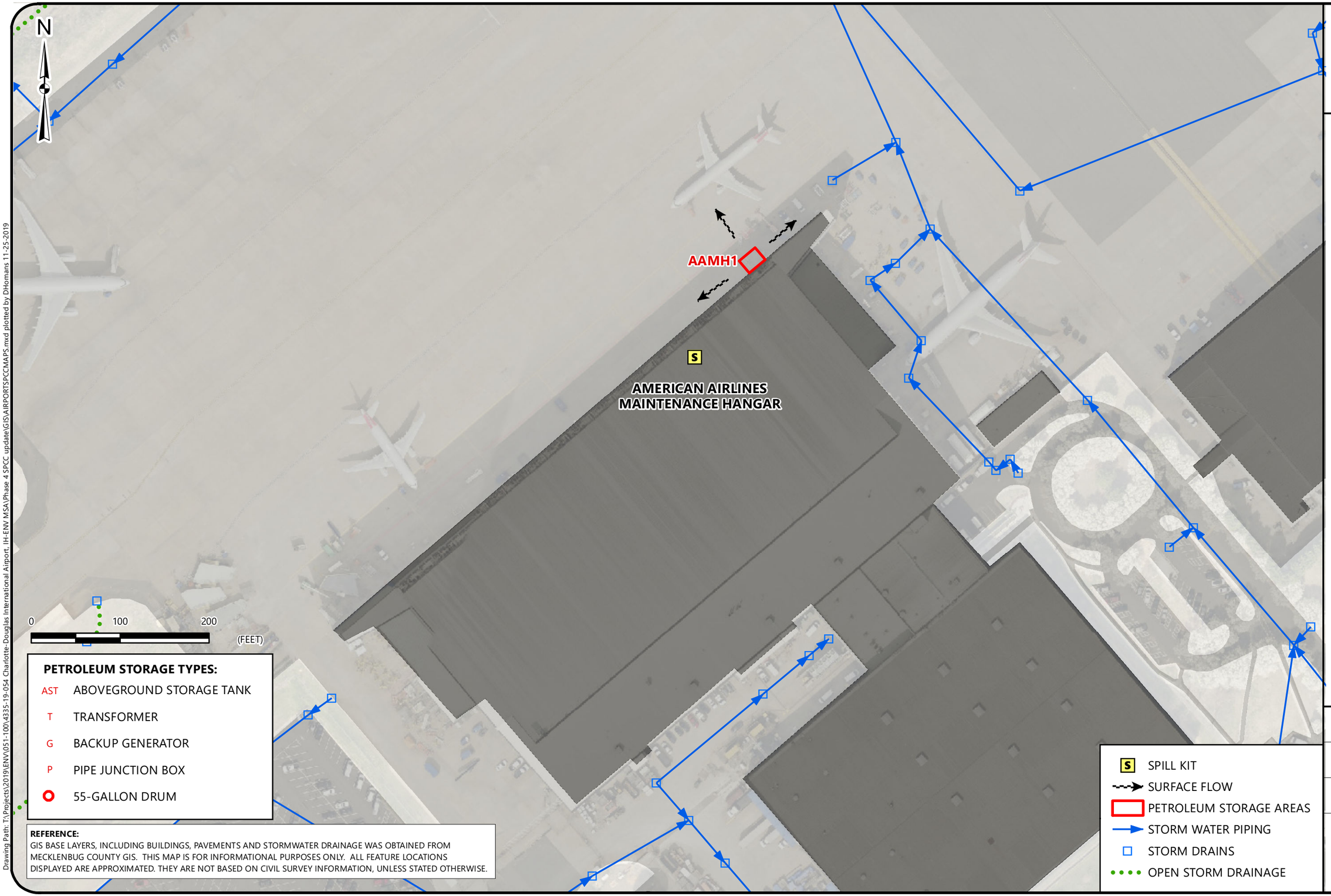
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE: 1 " = 50 '

DATE: 10-30-19

PROJECT NUMBER 4335-19-054

FIGURE NO. **12**



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AMERICAN AIRLINES MAINTENANCE HANGAR

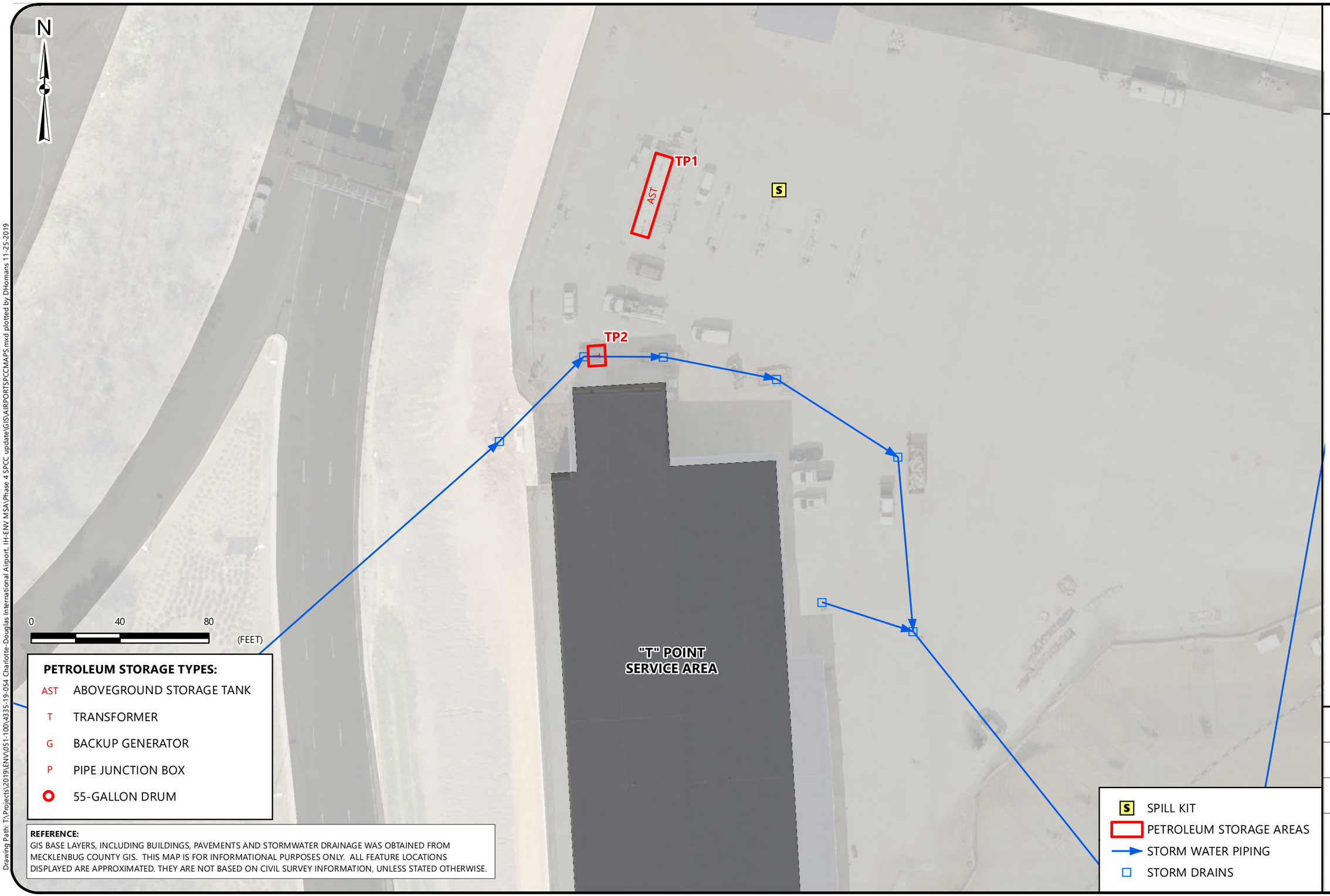
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 100 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
13



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"T" POINT SERVICE AREA

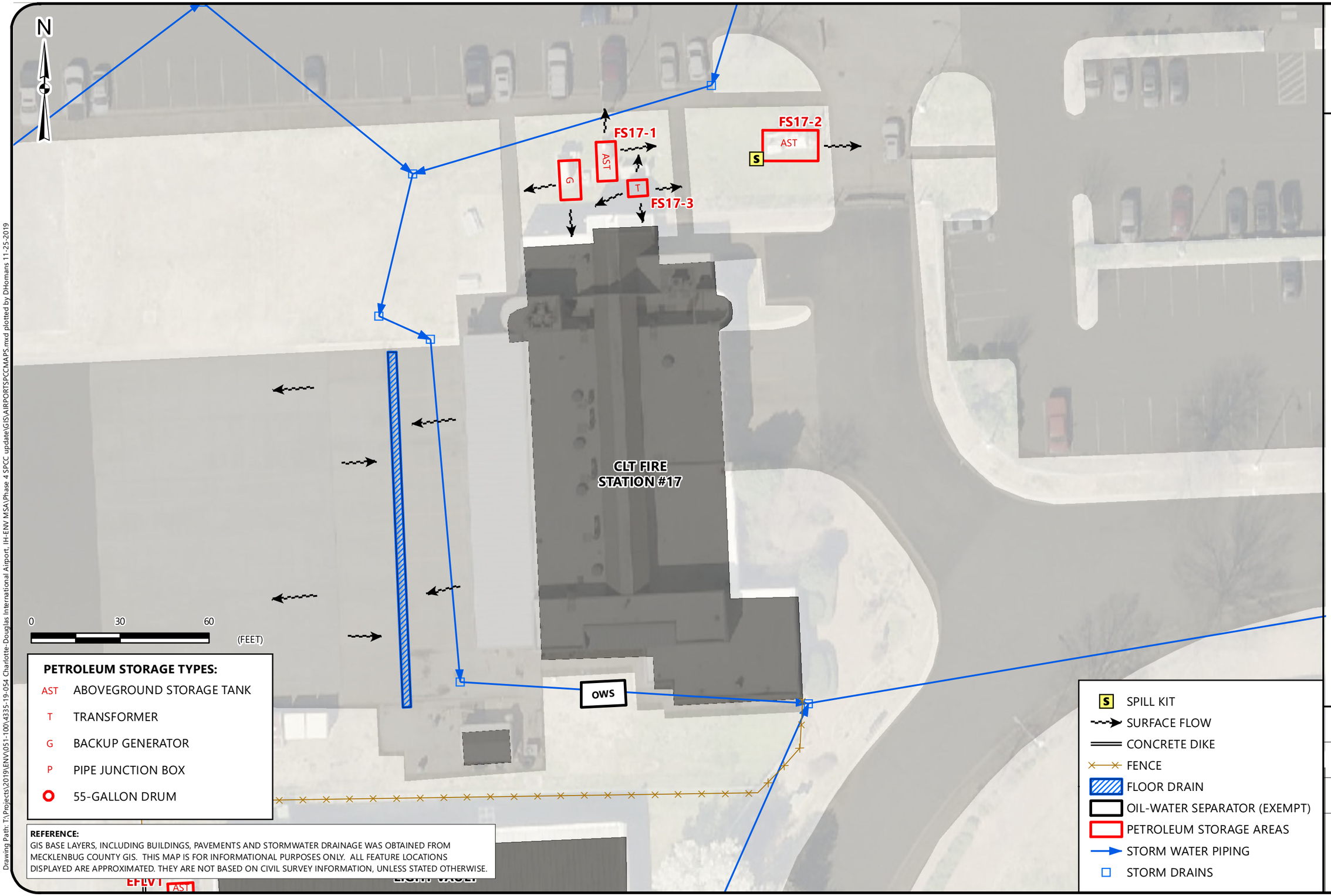
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE: 1 " = 40 '

DATE: 10-30-19

PROJECT NUMBER 4335-19-054

FIGURE NO. 14



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CLT FIRE STATION #17

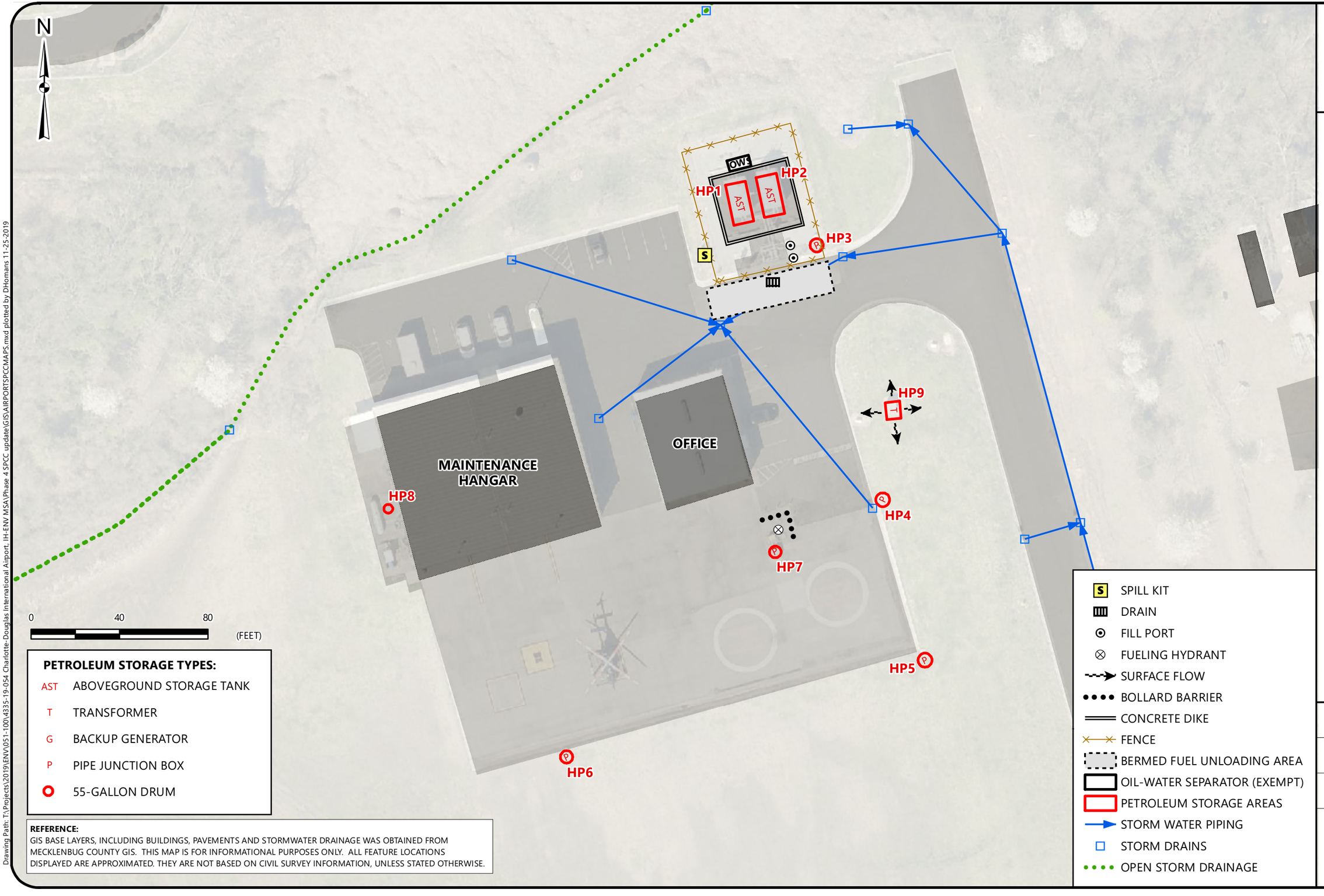
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 30 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
15



CLT POLICE HELICOPTER PAD

SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

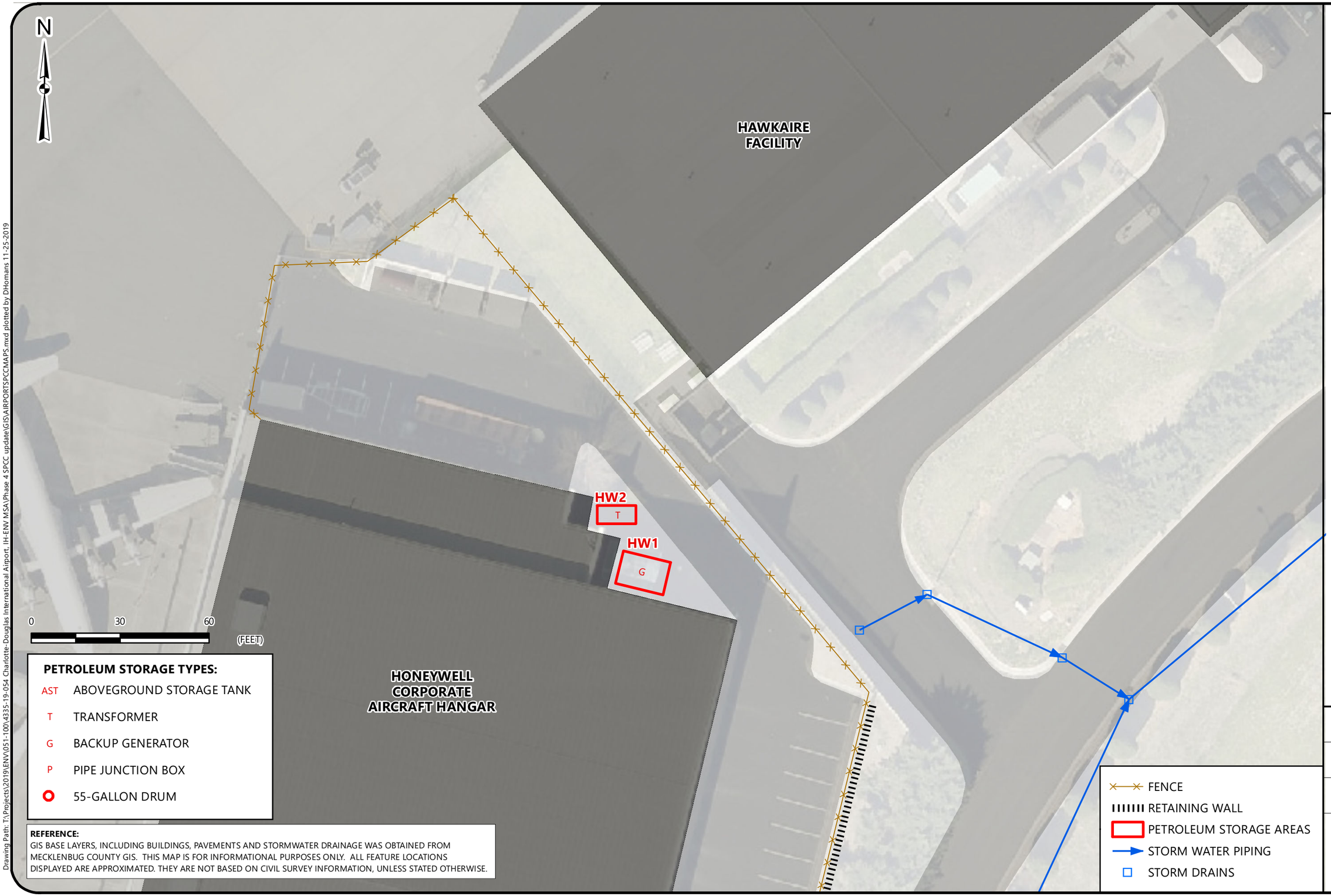
SCALE: 1 " = 40 '

DATE: 10-30-19

PROJECT NUMBER 4335-19-054

FIGURE NO. 16

Drawing Path: T:\Projects\2019\ENV\051-100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\AIRPORTSPCCMAPS.mxd plotted by DHomans 11-25-2019



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HONEYWELL CORPORATE AIRCRAFT HANGAR

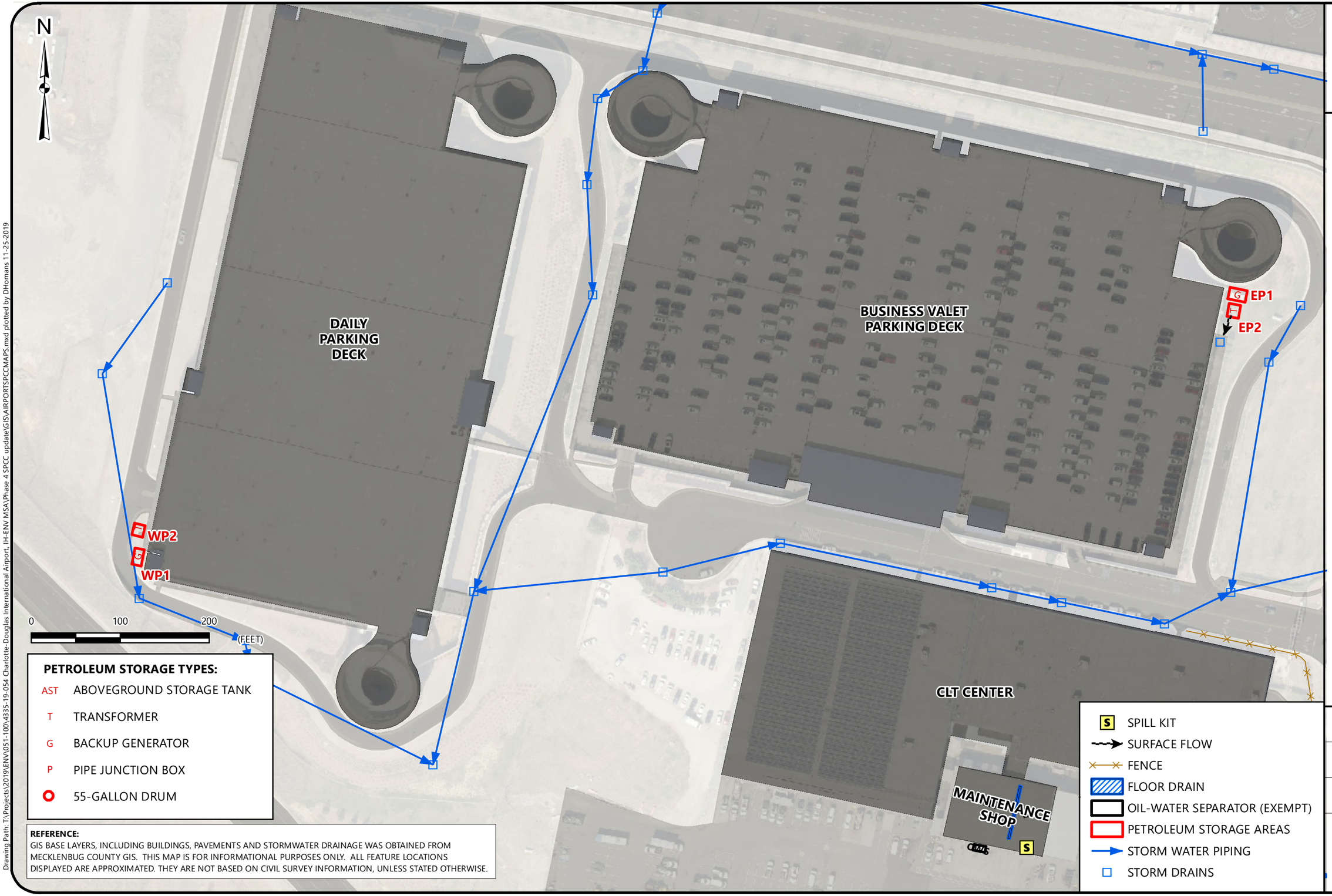
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE: 1 " = 30 '

DATE: 10-30-19

PROJECT NUMBER 4335-19-054

FIGURE NO. 17



REFERENCE:
GIS BASE LAYERS, INCLUDING BUILDINGS, PAVEMENTS AND STORMWATER DRAINAGE WAS OBTAINED FROM MECKLENBUG COUNTY GIS. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

VALET PARKING DECKS I & II

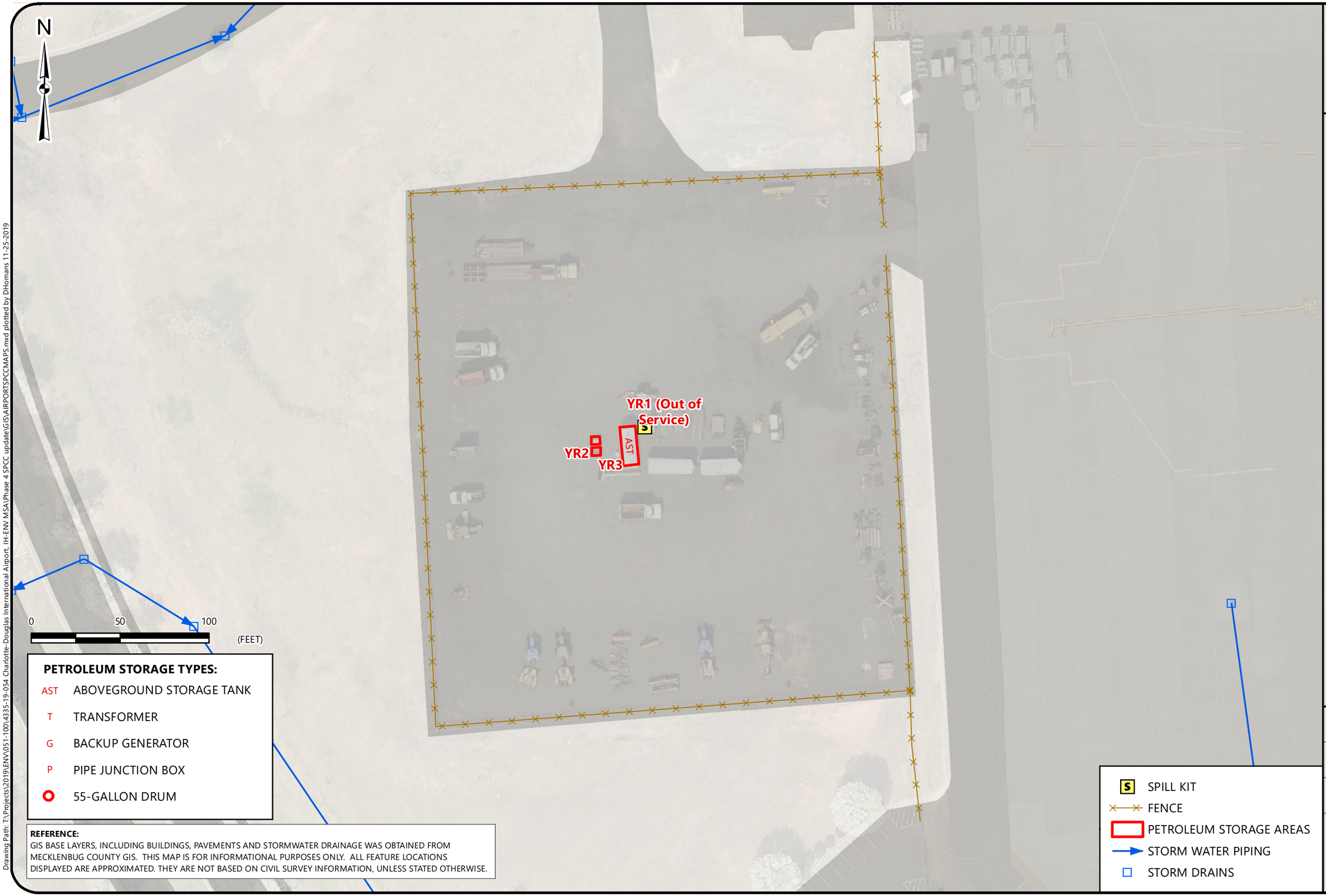
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 100 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
18



Drawing Path: T:\Projects\2019\ENV\051-100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\AIRPORTSPCCMAPS.mxd plotted by DHomans 11-25-2019

CLT YORKMONT ROAD MAINTENANCE AREA

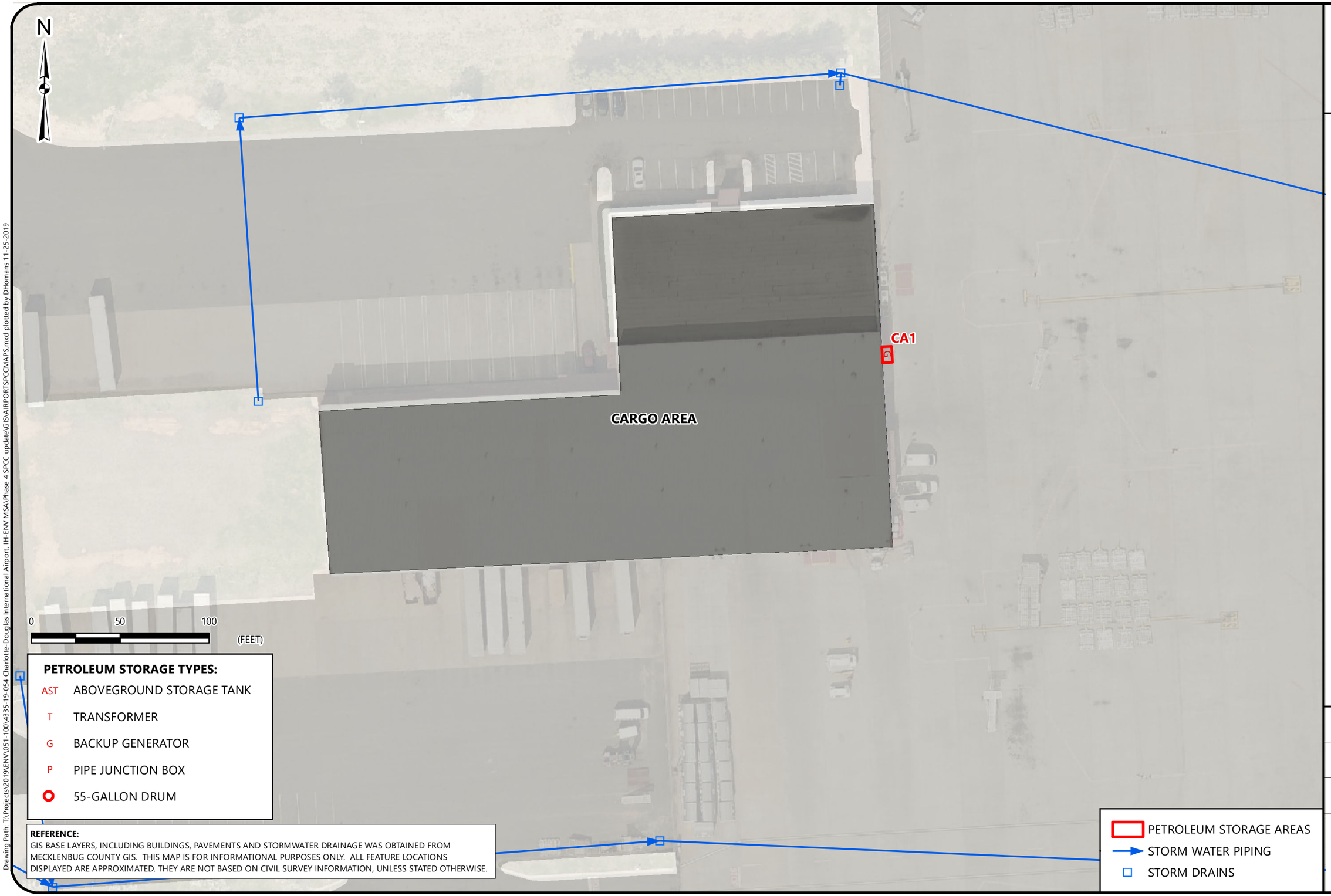
SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 50 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
19



Drawing Path: T:\Projects\2019\ENV\051-100\4335-19-054 Charlotte-Douglas International Airport, IH-ENV MSA\Phase 4 SPCC update\GIS\AIRPORTSPCCMAPS.mxd plotted by DHomans 11-25-2019

CARGO AREA

SPILL PREVENTION, CONTROL AND COUNTERMEASURE MASTER PLAN
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:
1 " = 50 '

DATE:
10-30-19

PROJECT NUMBER
4335-19-054

FIGURE NO.
20

Appendix A

40 CFR 112

engine on a public vessel) and any discharges of such oil accumulated in the bilges of a vessel discharged in compliance with MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A;

(b) Other discharges of oil permitted under MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A; and

(c) Any discharge of oil explicitly permitted by the Administrator in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

[61 FR 7421, Feb. 28, 1996]

§ 110.6 Notice.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC) (800–424–8802; in the Washington, DC metropolitan area, 202–426–2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E.

(Approved by the Office of Management and Budget under control number 2050–0046)

[52 FR 10719, Apr. 2, 1987. Redesignated and amended at 61 FR 7421, Feb. 28, 1996; 61 FR 14032, Mar. 29, 1996]

PART 112—OIL POLLUTION PREVENTION

Sec.

AUTHORITY: 33 U.S.C. 1251 *et seq.*; 33 U.S.C. 2720; E.O. 12777 (October 18, 1991), 3 CFR, 1991 Comp., p. 351.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 112 appear at 65 FR 40798, June 30, 2000.

Subpart A—Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils

SOURCE: 67 FR 47140, July 17, 2002, unless otherwise noted.

§ 112.1 General applicability.

(a)(1) This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities 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).

(2) As used in this part, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

(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.

(c) As provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.

(d) Except as provided in paragraph (f) of this section, this part does not apply to:

(1) The owner or operator of any facility, equipment, or operation that is

not subject to the jurisdiction of the Environmental Protection Agency (EPA) under section 311(j)(1)(C) of the CWA, as follows:

(i) Any onshore or offshore facility, that due to its location, could not reasonably be expected to have a discharge as described in paragraph (b) of this section. This determination must be based solely upon consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and must exclude consideration of manmade features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge as described in paragraph (b) of this section.

(ii) Any equipment, or operation of a vessel or transportation-related onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of EPA, dated November 24, 1971 (Appendix A of this part).

(iii) Any equipment, or operation of a vessel or onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation or the U.S. Department of the Interior, as defined in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(2) Any facility which, although otherwise subject to the jurisdiction of EPA, meets both of the following requirements:

(i) The completely buried storage capacity of the facility is 42,000 gallons or less of oil. For purposes of this exemption, the completely buried storage capacity of a facility excludes the capacity of a completely buried tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, that is currently subject to all of the technical requirements of part 280 of this chapter or all of the technical requirements of a State program approved under part 281 of this chapter. The completely buried storage capacity of a facility also excludes the capacity of a container that is ''permanently closed,'' as defined in §112.2.

(ii) The aggregate aboveground storage capacity of the facility is 1,320 gallons or less of oil. For purposes of this exemption, only containers of oil with a capacity of 55 gallons or greater are counted. The aggregate aboveground storage capacity of a facility excludes the capacity of a container that is ''permanently closed,'' as defined in §112.2.

(3) Any offshore oil drilling, production, or workover facility that is subject to the notices and regulations of the Minerals Management Service, as specified in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(4) Any completely buried storage tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, at any facility, that is subject to all of the technical requirements of part 280 of this chapter or a State program approved under part 281 of this chapter, except that such a tank must be marked on the facility diagram as provided in §112.7(a)(3), if the facility is otherwise subject to this part.

(5) Any container with a storage capacity of less than 55 gallons of oil.

(6) Any facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of this part. The production, recovery, or recycling of oil is not wastewater treatment for purposes of this paragraph.

(e) This part establishes requirements for the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive Federal/State spill prevention program

that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

(f) Notwithstanding paragraph (d) of this section, the Regional Administrator may require that the owner or operator of any facility subject to the jurisdiction of EPA under section 311(j) of the CWA prepare and implement an SPCC Plan, or any applicable part, to carry out the purposes of the CWA.

(1) Following a preliminary determination, the Regional Administrator must provide a written notice to the owner or operator stating the reasons why he must prepare an SPCC Plan, or applicable part. The Regional Administrator must send such notice to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of such notice to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data and may consult with the Agency about the need to prepare an SPCC Plan, or applicable part.

(3) Within 30 days following the time under paragraph (b)(2) of this section within which the owner or operator may provide information and data and consult with the Agency about the need to prepare an SPCC Plan, or applicable part, the Regional Administrator must make a final determination regarding whether the owner or operator is required to prepare and implement an SPCC Plan, or applicable part. The Regional Administrator must send the final determination to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of the final determination to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(4) If the Regional Administrator makes a final determination that an SPCC Plan, or applicable part, is necessary, the owner or operator must prepare the Plan, or applicable part, within six months of that final determination and implement the Plan, or applicable part, as soon as possible, but not later than one year after the Regional Administrator has made a final determination.

(5) The owner or operator may appeal a final determination made by the Regional Administrator requiring preparation and implementation of an SPCC Plan, or applicable part, under this paragraph. The owner or operator must make the appeal to the Administrator of EPA within 30 days of receipt of the final determination under paragraph (b)(3) of this section from the Regional Administrator requiring preparation and/or implementation of an SPCC Plan, or applicable part. The owner or operator must send a complete copy of the appeal to the Regional Administrator at the time he makes the appeal to the Administrator. The appeal must contain a clear and concise statement of the issues and points of fact in the case. In the appeal, the owner or operator may also provide additional information. The additional information may be from any person. The Administrator may request additional information from the owner or operator. The Administrator must render a decision within 60 days of receiving the appeal or additional information submitted by the owner or operator and must serve the owner or operator with the decision made in the appeal in the manner described in paragraph (f)(1) of this section.

§ 112.2 Definitions.

For the purposes of this part:

Adverse weather means weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil, and that must be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height as specified in Appendix E to this part (as appropriate), ice conditions, temperatures, weather-related visibility, and

currents within the area in which the systems or equipment is intended to function.

Alteration means any work on a container involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of the container.

Animal fat means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin.

Breakout tank means a container used to relieve surges in an oil pipeline system or to receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

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

Bunkered tank means a container constructed or placed in the ground by cutting the earth and re-covering the container in a manner that breaks the surrounding natural grade, or that lies above grade, and is covered with earth, sand, gravel, asphalt, or other material. A bunkered tank is considered an aboveground storage container for purposes of this part.

Completely buried tank means any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part.

Complex means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contiguous zone means the zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone, that is contiguous to the territorial sea and that extends nine miles seaward from the outer limit of the territorial area.

Contract or other approved means means:

(1) A written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and equipment within appropriate response times; and/or

(2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times; and/or

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or

(4) Any other specific arrangement approved by the Regional Administrator upon request of the owner or operator.

Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term discharge shall not include any discharge of oil that is authorized by a permit issued under section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

Facility means any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and waste treatment, or in which oil is used, as described in Appendix A to this part. The boundaries of a facility depend on

several site-specific factors, including, but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and the types of activity at the site.

Fish and wildlife and sensitive environments means areas that may be identified by their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered or threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and State lands that are research national areas, heritage program areas, land trust areas, and historical and archaeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.

Injury means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge, or exposure to a product of reactions resulting from a discharge.

Maximum extent practicable means within the limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. It includes the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in §112.20 or in a specific plan approved by the Regional Administrator.

Navigable waters means the waters of the United States, including the territorial seas.

(1) The term includes:

(i) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

(A) That are or could be used by interstate or foreign travelers for recreational or other purposes; or

(B) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,

(C) That are or could be used for industrial purposes by industries in interstate commerce;

(iv) All impoundments of waters otherwise defined as waters of the United States under this section;

(v) Tributaries of waters identified in paragraphs (1)(i) through (iv) of this definition;

(vi) The territorial sea; and

(vii) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph (1) of this definition.

(2) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds which also meet the criteria of this definition) are not waters of the United States. Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.

Non-petroleum oil means oil of any kind that is not petroleum-based, including but not limited to: Fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

Offshore facility means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United

States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.

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.

Oil Spill Removal Organization means an entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.

Onshore facility means any facility of any kind located in, on, or under any land within the United States, other than submerged lands.

Owner or operator means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated or maintained the facility immediately prior to such abandonment.

Partially buried tank means a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of this part.

Permanently closed means any container or facility for which:

(1) All liquid and sludge has been removed from each container and connecting line; and

(2) All connecting lines and piping have been disconnected from the container and blanked off, 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.

Person includes an individual, firm, corporation, association, or partnership.

Petroleum oil means petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil, or associated storage or measurement, and located in a single geographical oil or gas field operated by a single operator.

Regional Administrator means the Regional Administrator of the Environmental Protection Agency, in and for the Region in which the facility is located.

Repair means any work necessary to maintain or restore a container to a condition suitable for safe operation, other than that necessary for ordinary, day-to-day maintenance to maintain the functional integrity of the container and that does not weaken the container.

Spill Prevention, Control, and Countermeasure Plan; SPCC Plan, or Plan means the document required by §112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

Storage capacity of a container means the shell capacity of the container.

Transportation-related and non-transportation-related, as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, (Appendix A of this part).

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

Vegetable oil means a non-petroleum oil or fat of vegetable origin, including

but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions as determined using the worksheets in Appendix D to this part.

§ 112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.

The owner or operator of an onshore or offshore facility subject to this section must prepare a Spill Prevention, Control, and Countermeasure Plan (hereafter ''SPCC Plan'' or ''Plan),'' in writing, and in accordance with §112.7, and any other applicable section of this part.

(a) If your onshore or offshore facility was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, on or before February 17, 2006, and must implement the amended Plan as soon as possible, but not later than August 18, 2006. If your onshore or offshore facility becomes operational after August 16, 2002, through August 18, 2006, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare a Plan on or before August 18, 2006, and fully implement it as soon as possible, but not later than August 18, 2006.

(b) If you are the owner or operator of an onshore or offshore facility that becomes operational after August 18, 2006, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan before you begin operations.

(c) If you are the owner or operator of an onshore or offshore mobile facility, such as an onshore drilling or workover rig, barge mounted offshore drilling or workover rig, or portable fueling facility, you must prepare, implement, and maintain a facility Plan as required by this section. You must maintain your Plan, but must amend and implement it, if necessary to ensure compliance with this part, on or before August 18, 2006. If your onshore or offshore mobile facility becomes operational after August 18, 2006, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan before you begin operations. This provision does not require that you prepare a new Plan each time you move the facility to a new site. The Plan may be a general Plan. When you move the mobile or portable facility, you must locate and install it using the discharge prevention practices outlined in the Plan for the facility. The Plan is applicable only while the facility is in a fixed (non-transportation) operating mode.

(d) A licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.

(1) By means of this certification the Professional Engineer attests:

(i) That he is familiar with the requirements of this part ;

(ii) That he or his agent has visited and examined the facility;

(iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;

(iv) That procedures for required inspections and testing have been established; and

(v) That the Plan is adequate for the facility.

(2) Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan in accordance with the requirements of this part.

(e) If you are the owner or operator of a facility for which a Plan is required under this section, you must:

(1) Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and

(2) Have the Plan available to the Regional Administrator for on-site review during normal working hours.

(f) *Extension of time.* (1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of a Plan, or any amendment thereto, beyond the time permitted for the preparation, implementation, or amendment of a Plan under this part, when he finds that the owner or operator of a facility subject to this section, cannot fully comply with the requirements as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or his agents or employees.

(2) If you are an owner or operator seeking an extension of time under paragraph (f)(1) of this section, you may submit a written extension request to the Regional Administrator. Your request must include:

(i) A full explanation of the cause for any such delay and the specific aspects of the Plan affected by the delay;

(ii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay; and

(iii) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment, or other preventive measures. In addition you may present additional oral or written statements in support of your extension request.

(3) The submission of a written extension request under paragraph (f)(2) of this section does not relieve you of your obligation to comply with the requirements of this part. The Regional Administrator may request a copy of your Plan to evaluate the extension request. When the Regional Administrator authorizes an extension of time for particular equipment or other specific aspects of the Plan, such extension does not affect your obligation to comply with the requirements related to other equipment or other specific aspects of the Plan for which the Regional Administrator has not expressly authorized an extension.

[67 FR 47140, July 17, 2002, as amended at 68 FR 1351, Jan. 9, 2003; 68 FR 18894, Apr. 17, 2003; 69 FR 48798, Aug. 11, 2004]

§ 112.4 Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator.

If you are the owner or operator of a facility subject to this part, you must:

(a) Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject to this section:

(1) Name of the facility;

(2) Your name;

(3) Location of the facility;

(4) Maximum storage or handling capacity of the facility and normal daily throughput;

(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;

(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;

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

(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and

(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

(b) Take no action under this section until it applies to your facility. This section does not apply until the expiration of the time permitted for the initial preparation and implementation of

the Plan under §112.3, but not including any amendments to the Plan.

(c) Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information you provided to the Regional Administrator under paragraph (a) of this section. Upon receipt of the information such State agency or agencies may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from your facility.

(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 on-site 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, views, 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 not later than six months after you amend your Plan, unless the Regional Administrator specifies another date.

(f) If you appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan, send the appeal to the EPA Administrator in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment under paragraph (e) of this section. You must send a complete copy of the appeal to the Regional Administrator at the time you make the appeal. The appeal must contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from you, or from any other person. The EPA Administrator may request additional information from you, or from any other person. The EPA Administrator must render a decision within 60 days of receiving the appeal and must notify you of his decision.

§112.5 Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators.

If you are the owner or operator of a facility subject to this part, you must:

(a) Amend the SPCC Plan for your facility in accordance with the general requirements in §112.7, and with any specific section of this part applicable to your facility, when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in §112.1(b). 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. An amendment made under this section must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

(b) Notwithstanding compliance with paragraph (a) of this section, complete a review and evaluation of the SPCC Plan at least once every five years from the date your facility becomes

subject to this part; or, if your facility was in operation on or before August 16, 2002, five 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 six 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 implement any amendment as soon as possible, but not later than six months following preparation of any amendment. You must document your completion of the review and evaluation, and must sign a statement as to whether you will amend the Plan, either at the beginning or end of the Plan or in a log or an appendix to the Plan. The following words will suffice, ''I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.''

(c) Have a Professional Engineer certify any technical amendment to your Plan in accordance with §112.3(d).

§112.6 [Reserved]

§112.7 General requirements for Spill Prevention, Control, and Countermeasure Plans.

If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:

(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

(2) Comply with all applicable requirements listed in this part. Your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2),112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11),112.13(c)(2), and 112.14(c), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in §112.4(d) and (e).

(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 container. The facility diagram must include completely buried 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. You must also address in your Plan:

(i) The type of oil in each container and its storage capacity;

(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, *etc.*);

(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);

(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and

(vi) 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).

(4) Unless you have submitted a response plan under §112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in §112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in §112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted.

(5) Unless you have submitted a response plan under §112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.

(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.

(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. 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;

(iii) Culverting, gutters, or other drainage systems;

(iv) Weirs, booms, or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds; or

(vii) Sorbent materials.

(2) For offshore facilities:

(i) Curbing or drip pans; or

(ii) Sumps and collection systems.

(d) If you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c) 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 part 109 of this chapter.

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

(e) *Inspections, tests, and records.* Conduct inspections and tests required by this part 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.

(f) *Personnel, training, and discharge prevention procedures.* (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.

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

(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.

(g) *Security (excluding oil production facilities).* (1) Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is not in production or is unattended.

(2) Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

(3) Lock the starter control on each oil pump in the ''off'' position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

(4) Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended time. This security practice also applies to piping that is emptied of liquid content either by draining or by inert gas pressure.

(5) Provide facility lighting commensurate with the type and location of the facility that will assist in the:

(i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.); and

(ii) Prevention of discharges occurring through acts of vandalism.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).* (1) Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. 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.

(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.

(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.

(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.

(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.

Subpart B—Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

SOURCE: 67 FR 47146, July 17, 2002, unless otherwise noted.

§ 112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (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.

(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 on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(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.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, 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.

(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.

(c) *Bulk storage containers.* (1) 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.

(2) Construct all bulk storage container installations 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.

(3) 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; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) 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.

(5) 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.

(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also 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 will suffice for purposes of this paragraph.

(7) 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.

(8) 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.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).

(10) 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.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). 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.

(d) *Facility transfer operations, pumping, and facility process.* (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 part 280 of this chapter or a State program approved under part 281 of this chapter. 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.

(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.

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

(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.

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

§ 112.9 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities.

If you are the owner or operator of an onshore production facility, you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in §112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under §112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in §112.8(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly

following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) Have a program of flowline maintenance to prevent discharges from each flowline.

§ 112.10 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in § 112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.11 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in § 112.1(b). Where drains and sumps are not practicable, you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil. You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You

must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart C—Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, including Oils from Seeds, Nuts, Fruits, and Kernels.

SOURCE: 67 FR 57149, July 17, 2002, unless otherwise noted.

§ 112.12 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities)

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (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.

(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 on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, subject to the requirements of paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(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.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, 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.

(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.

(c) *Bulk storage containers.* (1) 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.

(2) Construct all bulk storage container installations 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.

(3) 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; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) 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.

(5) 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.

(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also 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 will suffice for purposes of this paragraph.

(7) 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.

(8) 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.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

(10) 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.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). 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.

(d) *Facility transfer operations, pumping, and facility process.* (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 part 280 of this chapter or a State program approved under part 281 of this chapter. 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.

(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.

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

(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.

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

§112.13 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities.

If you are the owner or operator of an onshore production facility, you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in §112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under §112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in §112.12(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for

the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) Have a program of flowline maintenance to prevent discharges from each flowline.

§ 112.14 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in § 112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.15 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in § 112.1(b). Where drains and sumps are not practicable,

you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil. You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart D—Response Requirements

§ 112.20 Facility response plans.

(a) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response

plan to the Regional Administrator, according to the following provisions:

(1) For the owner or operator of a facility in operation on or before February 18, 1993 who is required to prepare and submit a response plan under 33 U.S.C. 1321(j)(5), the Oil Pollution Act of 1990 (Pub. L. 101–380, 33 U.S.C. 2701 *et seq.*) requires the submission of a response plan that satisfies the requirements of 33 U.S.C. 1321(j)(5) no later than February 18, 1993.

(i) The owner or operator of an existing facility that was in operation on or before February 18, 1993 who submitted a response plan by February 18, 1993 shall revise the response plan to satisfy the requirements of this section and resubmit the response plan or updated portions of the response plan to the Regional Administrator by February 18, 1995.

(ii) The owner or operator of an existing facility in operation on or before February 18, 1993 who failed to submit a response plan by February 18, 1993 shall prepare and submit a response plan that satisfies the requirements of this section to the Regional Administrator before August 30, 1994.

(2) The owner or operator of a facility in operation on or after August 30, 1994 that satisfies the criteria in paragraph (f)(1) of this section or that is notified by the Regional Administrator pursuant to paragraph (b) of this section shall prepare and submit a facility response plan that satisfies the requirements of this section to the Regional Administrator.

(i) For a facility that commenced operations after February 18, 1993 but prior to August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan or updated portions of the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to August 30, 1994.

(ii) For a newly constructed facility that commences operation after August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to the start of operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iii) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator before the portion of the facility undergoing change commences operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iv) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of an unplanned event or change in facility characteristics that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator within six months of the unplanned event or change.

(3) In the event the owner or operator of a facility that is required to prepare and submit a response plan uses an alternative formula that is comparable to one contained in Appendix C to this part to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula.

(4) *Preparation and submission of response plans—Animal fat and vegetable oil facilities.* The owner or operator of any non-transportation-related facility that handles, stores, or transports animal fats and vegetable oils must prepare and submit a facility response plan as follows:

(i) *Facilities with approved plans.* The owner or operator of a facility with a facility response plan that has been approved under paragraph (c) of this section by July 31, 2000 need not prepare or submit a revised plan except as otherwise required by paragraphs (b), (c), or (d) of this section.

(ii) *Facilities with plans that have been submitted to the Regional Administrator.* Except for facilities with approved plans as provided in paragraph (a)(4)(i) of this section, the owner or operator of a facility that has submitted a response plan to the Regional Administrator prior to July 31, 2000 must review the plan to determine if it meets or exceeds the applicable provisions of this part. An owner or operator need not prepare or submit a new plan if the existing plan meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must prepare and submit a new plan by September 28, 2000.

(iii) *Newly regulated facilities.* The owner or operator of a newly constructed facility that commences operation after July 31, 2000 must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(ii) of this section. The plan must meet or exceed the applicable provisions of this part. The owner or operator of an existing facility that must prepare and submit a plan after July 31, 2000 as a result of a planned or unplanned change in facility characteristics that causes the facility to become regulated under paragraph (f)(1) of this section, must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(iii) or (iv) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(iv) *Facilities amending existing plans.* The owner or operator of a facility submitting an amended plan in accordance with paragraph (d) of this section after July 31, 2000, including plans that had been previously approved, must also review the plan to determine if it meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must revise and resubmit revised portions of an amended plan to the Regional Administrator in accordance with paragraph (d) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(b)(1) The Regional Administrator may at any time require the owner or operator of any non-transportation-related onshore facility to prepare and submit a facility response plan under this section after considering the factors in paragraph (f)(2) of this section. If such a determination is made, the Regional Administrator shall notify the facility owner or operator in writing and shall provide a basis for the determination. If the Regional Administrator notifies the owner or operator in writing of the requirement to prepare and submit a response plan under this section, the owner or operator of the facility shall submit the response plan to the Regional Administrator within six months of receipt of such written notification.

(2) The Regional Administrator shall review plans submitted by such facilities to determine whether the facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(c) The Regional Administrator shall determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, based on the factors in paragraph (f)(3) of this section. If such a determination is made, the Regional Administrator shall notify the owner or operator of the facility in writing and:

(1) Promptly review the facility response plan;

(2) Require amendments to any response plan that does not meet the requirements of this section;

(3) Approve any response plan that meets the requirements of this section; and

(4) Review each response plan periodically thereafter on a schedule established by the Regional Administrator provided that the period between plan reviews does not exceed five years.

(d)(1) The owner or operator of a facility for which a response plan is required under this part shall revise and resubmit revised portions of the response plan within 60 days of each facility change that materially may affect the response to a worst case discharge, including:

(i) A change in the facility's configuration that materially alters the information included in the response plan;

(ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;

(iii) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;

(iv) A material change in the facility's spill prevention and response equipment or emergency response procedures; and

(v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

(3) The owner or operator of a facility that submits changes to a response plan as provided in paragraph (d)(1) or (d)(2) of this section shall provide the EPA-issued facility identification number (where one has been assigned) with the changes.

(4) The Regional Administrator shall review for approval changes to a response plan submitted pursuant to paragraph (d)(1) of this section for a facility determined pursuant to paragraph (f)(3) of this section to have the potential to cause significant and substantial harm to the environment.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that the facility could not, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the owner or operator shall complete and maintain at the facility the certification form contained in Appendix C to this part and, in the event an alternative formula that is comparable to one contained in Appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f)(1) A facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (a)(2) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in Attachment C-I to Appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground oil storage tank within each storage area plus sufficient freeboard to allow for precipitation;

(B) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III of the ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan prepared pursuant to section 311(j)(4) of the Clean Water Act;

(C) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake; or

(D) The facility has had a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years.

(2)(i) To determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (b) of this section, the Regional Administrator shall consider the following:

(A) Type of transfer operation;

(B) Oil storage capacity;

(C) Lack of secondary containment;

(D) Proximity to fish and wildlife and sensitive environments and other areas determined by the Regional Administrator to possess ecological value;

(E) Proximity to drinking water intakes;

(F) Spill history; and

(G) Other site-specific characteristics and environmental factors that the Regional Administrator determines to be relevant to protecting the environment from harm by discharges of oil into or on navigable waters or adjoining shorelines.

(ii) Any person, including a member of the public or any representative from a Federal, State, or local agency who believes that a facility subject to this section could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines may petition the Regional Administrator to determine whether the facility meets the criteria in paragraph (f)(2)(i) of this section. Such petition shall include a discussion of how the factors in paragraph (f)(2)(i) of this section apply to the facility in question. The RA shall consider such petitions and respond in an appropriate amount of time.

(3) To determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the Regional Administrator may consider the factors in paragraph (f)(2) of this section as well as the following:

(i) Frequency of past discharges;

(ii) Proximity to navigable waters;

(iii) Age of oil storage tanks; and

(iv) Other facility-specific and Region-specific information, including local impacts on public health.

(g)(1) All facility response plans shall be consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (40 CFR part 300) and applicable Area Contingency Plans prepared pursuant to section 311(j)(4) of the Clean Water Act. The facility response plan should be coordinated with the local emergency response plan developed by the local emergency planning committee under section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 11001 et seq.). Upon request, the owner or operator should provide a copy of the facility response plan to the local emergency planning committee or State emergency response commission.

(2) The owner or operator shall review relevant portions of the National Oil and Hazardous Substances Pollution Contingency Plan and applicable Area Contingency Plan annually and, if necessary, revise the facility response plan to ensure consistency with these plans.

(3) The owner or operator shall review and update the facility response

plan periodically to reflect changes at the facility.

(h) A response plan shall follow the format of the model facility-specific response plan included in Appendix F to this part, unless you have prepared an equivalent response plan acceptable to the Regional Administrator to meet State or other Federal requirements. A response plan that does not follow the specified format in Appendix F to this part shall have an emergency response action plan as specified in paragraphs (h)(1) of this section and be supplemented with a cross-reference section to identify the location of the elements listed in paragraphs (h)(2) through (h)(10) of this section. To meet the requirements of this part, a response plan shall address the following elements, as further described in Appendix F to this part:

(1) *Emergency response action plan.* The response plan shall include an emergency response action plan in the format specified in paragraphs (h)(1)(i) through (viii) of this section that is maintained in the front of the response plan, or as a separate document accompanying the response plan, and that includes the following information:

(i) The identity and telephone number of a qualified individual having full authority, including contracting authority, to implement removal actions;

(ii) The identity of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal officials and the persons providing response personnel and equipment can be ensured;

(iii) A description of information to pass to response personnel in the event of a reportable discharge;

(iv) A description of the facility's response equipment and its location;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(vii) A description of immediate measures to secure the source of the discharge, and to provide adequate containment and drainage of discharged oil; and

(viii) A diagram of the facility.

(2) *Facility information.* The response plan shall identify and discuss the location and type of the facility, the identity and tenure of the present owner and operator, and the identity of the qualified individual identified in paragraph (h)(1) of this section.

(3) *Information about emergency response.* The response plan shall include:

(i) The identity of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge and other discharges of oil described in paragraph (h)(5) of this section, and to mitigate or prevent a substantial threat of a worst case discharge (To identify response resources to meet the facility response plan requirements of this section, owners or operators shall follow Appendix E to this part or, where not appropriate, shall clearly demonstrate in the response plan why use of Appendix E of this part is not appropriate at the facility and make comparable arrangements for response resources);

(ii) Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment;

(iii) The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iv) A description of information to pass to response personnel in the event of a reportable discharge;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) A description of the facility's response equipment, the location of the equipment, and equipment testing;

(vii) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(viii) A diagram of evacuation routes; and

(ix) A description of the duties of the qualified individual identified in paragraph (h)(1) of this section, that include:

(A) Activate internal alarms and hazard communication systems to notify all facility personnel;

(B) Notify all response personnel, as needed;

(C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;

(D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;

(E) Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;

(F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);

(G) Assess and implement prompt removal actions to contain and remove the substance released;

(H) Coordinate rescue and response actions as previously arranged with all response personnel;

(I) Use authority to immediately access company funding to initiate cleanup activities; and

(J) Direct cleanup activities until properly relieved of this responsibility.

(4) *Hazard evaluation.* The response plan shall discuss the facility's known or reasonably identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility and shall identify areas within the facility where discharges could occur and what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall, where appropriate, consider the distance calculated in paragraph (f)(1)(ii) of this section to determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(5) *Response planning levels.* The response plan shall include discussion of specific planning scenarios for:

(i) A worst case discharge, as calculated using the appropriate worksheet in Appendix D to this part. In cases where the Regional Administrator determines that the worst case discharge volume calculated by the facility is not appropriate, the Regional Administrator may specify the worst case discharge amount to be used for response planning at the facility. For complexes, the worst case planning quantity shall be the larger of the amounts calculated for each component of the facility;

(ii) A discharge of 2,100 gallons or less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility; and

(iii) A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility.

(6) *Discharge detection systems.* The response plan shall describe the procedures and equipment used to detect discharges.

(7) *Plan implementation.* The response plan shall describe:

(i) Response actions to be carried out by facility personnel or contracted personnel under the response plan to ensure the safety of the facility and to mitigate or prevent discharges described in paragraph (h)(5) of this section or the substantial threat of such discharges;

(ii) A description of the equipment to be used for each scenario;

(iii) Plans to dispose of contaminated cleanup materials; and

(iv) Measures to provide adequate containment and drainage of discharged oil.

(8) *Self-inspection, drills/exercises, and response training.* The response plan shall include:

(i) A checklist and record of inspections for tanks, secondary containment, and response equipment;

(ii) A description of the drill/exercise program to be carried out under the response plan as described in § 112.21;

(iii) A description of the training program to be carried out under the response plan as described in § 112.21; and

(iv) Logs of discharge prevention meetings, training sessions, and drills/exercises. These logs may be maintained as an annex to the response plan.

(9) *Diagrams.* The response plan shall include site plan and drainage plan diagrams.

(10) *Security systems.* The response plan shall include a description of facility security systems.

(11) *Response plan cover sheet.* The response plan shall include a completed response plan cover sheet provided in Section 2.0 of Appendix F to this part.

(i)(1) In the event the owner or operator of a facility does not agree with the Regional Administrator's determination that the facility could, because of its location, reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, or that amendments to the facility response plan are necessary prior to approval, such as changes to the worst case discharge planning volume, the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The request and accompanying information must be submitted to the Regional Administrator within 60 days of receipt of notice of the Regional Administrator's original decision. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(2) In the event the owner or operator of a facility believes a change in the facility's classification status is warranted because of an unplanned event or change in the facility's characteristics (i.e., substantial harm or significant and substantial harm), the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(3) After a request for reconsideration under paragraph (i)(1) or (i)(2) of this section has been denied by the Regional Administrator, an owner or operator may appeal a determination made by the Regional Administrator. The appeal shall be made to the EPA Administrator and shall be made in writing within 60 days of receipt of the decision from the Regional Administrator that the request for reconsideration was denied. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It also may contain additional information from the owner or operator, or from any other person. The EPA Administrator may request additional information from the owner or operator, or from any other person. The EPA Administrator shall render a decision as rapidly as practicable and shall notify the owner or operator of the decision.

[59 FR 34098, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 66 FR 34560, June 29, 2001; 67 FR 47151, July 17, 2002]

§ 112.21 Facility response training and drills/exercises.

(a) The owner or operator of any facility required to prepare a facility response plan under § 112.20 shall develop and implement a facility response training program and a drill/exercise program that satisfy the requirements of this section. The owner or operator shall describe the programs in the response plan as provided in § 112.20(h)(8).

(b) The facility owner or operator shall develop a facility response training program to train those personnel involved in oil spill response activities. It is recommended that the training program be based on the USCG's Training Elements for Oil Spill Response, as applicable to facility operations. An alternative program can also be acceptable subject to approval by the Regional Administrator.

(1) The owner or operator shall be responsible for the proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations.

(2) Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel.

(3) Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup.

(c) The facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. A program that follows the National Preparedness for Response Exercise Program (PREP) (see Appendix E to this part, section 13, for availability) will be deemed satisfactory for purposes of this section. An alternative program can also be acceptable subject to approval by the Regional Administrator.

[59 FR 34101, July 1, 1994, as amended at 65 FR 40798, June 30, 2000]

APPENDIX A TO PART 112—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) *Non-transportation-related onshore and offshore facilities* means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) *Transportation-related onshore and offshore facilities* means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

APPENDIX B TO PART 112—MEMORANDUM OF UNDERSTANDING AMONG THE SECRETARY OF THE INTERIOR, SECRETARY OF TRANSPORTATION, AND ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

PURPOSE

This Memorandum of Understanding (MOU) establishes the jurisdictional responsibilities for offshore facilities, including pipelines, pursuant to section 311 (j)(1)(c), (j)(5), and (j)(6)(A) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (Public Law 101–380). The Secretary of the Department of the Interior (DOI), Secretary of the Department of Transportation (DOT), and Administrator of the Environmental Protection Agency (EPA) agree to the division of responsibilities set forth below for spill prevention and control, response planning, and equipment inspection activities pursuant to those provisions.

BACKGROUND

Executive Order (E.O.) 12777 (56 FR 54757) delegates to DOI, DOT, and EPA various responsibilities identified in section 311(j) of the CWA. Sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 assigned to DOI spill prevention and control, contingency planning, and equipment inspection activities associated with offshore facilities. Section 311(a)(11) defines the term ''offshore facility'' to include facilities of any kind located in, on, or under navigable waters of the United States. By using this definition, the traditional DOI role of regulating facilities on the Outer Continental Shelf is expanded by E.O. 12777 to include inland lakes, rivers, streams, and any other inland waters.

RESPONSIBILITIES

Pursuant to section 2(i) of E.O. 12777, DOI redelegates, and EPA and DOT agree to assume, the functions vested in DOI by sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 as set forth below. For purposes of this MOU, the term ''coast line'' shall be defined as in the Submerged Lands Act (43 U.S.C. 1301(c)) to mean ''the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters.''

1. To EPA, DOI redelegates responsibility for non-transportation-related offshore facilities located landward of the coast line.

2. To DOT, DOI redelegates responsibility for transportation-related facilities, including pipelines, located landward of the coast line. The DOT retains jurisdiction for deepwater ports and their associated seaward pipelines, as delegated by E.O. 12777.

3. The DOI retains jurisdiction over facilities, including pipelines, located seaward of the coast line, except for deepwater ports and associated seaward pipelines delegated by E.O. 12777 to DOT.

EFFECTIVE DATE

This MOU is effective on the date of the final execution by the indicated signatories.

LIMITATIONS

1. The DOI, DOT, and EPA may agree in writing to exceptions to this MOU on a facility-specific basis. Affected parties will receive notification of the exceptions.

2. Nothing in this MOU is intended to replace, supersede, or modify any existing agreements between or among DOI, DOT, or EPA.

MODIFICATION AND TERMINATION

Any party to this agreement may propose modifications by submitting them in writing to the heads of the other agency/department. No modification may be adopted except with the consent of all parties. All parties shall indicate their consent to or disagreement with any proposed modification within 60 days of receipt. Upon the request of any party, representatives of all parties shall meet for the purpose of considering exceptions or modifications to this agreement. This MOU may be terminated only with the mutual consent of all parties.

Dated: November 8, 1993.
Bruce Babbitt,
Secretary of the Interior.
Dated: December 14, 1993.
Federico Peña,
Secretary of Transportation.
Dated: February 3, 1994.
Carol M. Browner,
Administrator, Environmental Protection Agency.

[59 FR 34102, July 1, 1994]

APPENDIX C TO PART 112—SUBSTANTIAL HARM CRITERIA

1.0 INTRODUCTION

The flowchart provided in Attachment C–I to this appendix shows the decision tree with the criteria to identify whether a facility ''could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines.'' In addition, the Regional Administrator has the discretion to identify facilities that must prepare and submit facility-specific response plans to EPA.

1.1 Definitions

1.1.1 *Great Lakes* means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

1.1.2 Higher Volume Port Areas include

(1) Boston, MA;

(2) New York, NY;

(3) Delaware Bay and River to Philadelphia, PA;

(4) St. Croix, VI;

(5) Pascagoula, MS;

(6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA;

(7) Louisiana Offshore Oil Port (LOOP), LA;

(8) Lake Charles, LA;

(9) Sabine-Neches River, TX;

(10) Galveston Bay and Houston Ship Channel, TX;

(11) Corpus Christi, TX;

(12) Los Angeles/Long Beach Harbor, CA;

(13) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch, CA;

(14) Straits of Juan de Fuca from Port Angeles, WA to and including Puget Sound, WA;

(15) Prince William Sound, AK; and

(16) Others as specified by the Regional Administrator for any EPA Region.

1.1.3 *Inland Area* means the area shoreward of the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines as defined in 33 CFR 80.740—80.850). The inland area does not include the Great Lakes.

1.1.4 *Rivers and Canals* means a body of water confined within the inland area, including the Intracoastal Waterways and other waterways artificially created for navigating that have project depths of 12 feet or less.

2.0 DESCRIPTION OF SCREENING CRITERIA FOR THE SUBSTANTIAL HARM FLOWCHART

A facility that has the potential to cause substantial harm to the environment in the event of a discharge must prepare and submit a facility-specific response plan to EPA in accordance with Appendix F to this part. A description of the screening criteria for the substantial harm flowchart is provided below:

2.1 *Non-Transportation-Related Facilities With a Total Oil Storage Capacity Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfers of Oil.* A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Daily oil transfer operations at these types of facilities occur between barges and vessels and onshore bulk storage tanks over open water. These facilities are located adjacent to navigable water.

2.2 *Lack of Adequate Secondary Containment at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.

2.3 *Proximity to Fish and Wildlife and Sensitive Environments at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined at 40 CFR 112.2) to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil discharge could cause injury to fish and wildlife and sensitive environments using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.4 *Proximity to Public Drinking Water Intakes at Facilities with a Total Oil Storage Capacity Greater than or Equal to 1 Million Gallons* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c). The distance at which an oil discharge from an SPCC-regulated facility would shut down a public drinking water intake shall be calculated using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.5 *Facilities That Have Experienced Reportable Oil Discharges in an Amount Greater Than or Equal to 10,000 Gallons Within the Past 5 Years and That Have a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility's oil spill history within the past 5 years shall be considered in the evaluation for substantial harm. Any facility with a total oil storage capacity greater than or equal to 1 million gallons that has experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the past 5 years must submit a response plan to EPA.

3.0 Certification for Facilities That Do Not Pose Substantial Harm

If the facility does not meet the substantial harm criteria listed in Attachment C–I to this appendix, the owner or operator shall complete and maintain at the facility the certification form contained in Attachment C–II to this appendix. In the event an alternative formula that is comparable to the one in this appendix is used to evaluate the substantial harm criteria, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

4.0 References

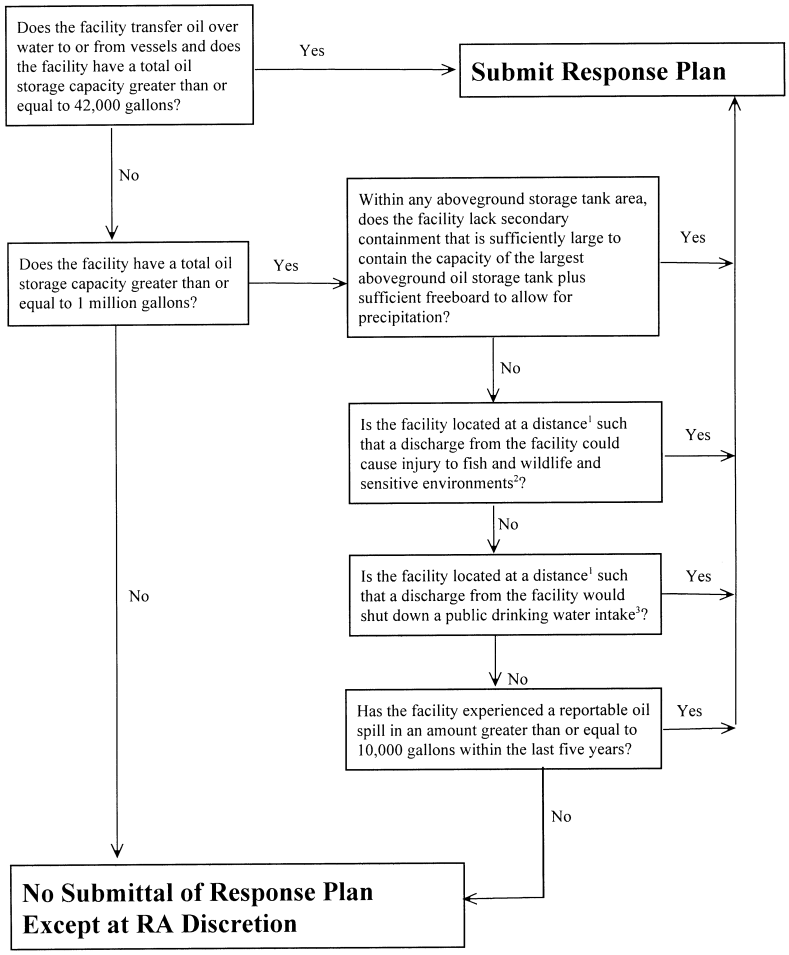
Chow, V.T. 1959. Open Channel Hydraulics. McGraw Hill.

USCG IFR (58 FR 7353, February 5, 1993). This document is available through EPA's rulemaking docket as noted in Appendix E to this part, section 13.

ATTACHMENTS TO APPENDIX C

Attachment C-I

Flowchart of Criteria for Substantial Harm



[1] Calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula.

[2] For further description of fish and wildlife and sensitive environments, see Appendices I,II, and III to DOC/NOAA's "Guidance for Facility and vessel response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

[3] Public drinking water intakes are analogous to public water systems as described at CFR 143.2(c).

ATTACHMENT C-II—CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: _____
Facility Address: _____

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 _____

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

Yes _____ No _____

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 formula in Attachment C–III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes _____ No _____

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 formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?

Yes _____ No _____

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 discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____ No _____

Certification

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

_____
Signature

_____
Name (please type or print)

_____
Title

_____
Date

ATTACHMENT C-III—CALCULATION OF THE PLANNING DISTANCE

1.0 Introduction

1.1 The facility owner or operator must evaluate whether the facility is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments or disrupt operations at a public drinking water intake. To quantify that distance, EPA considered oil transport mechanisms over land and on still, tidal influence, and moving navigable waters. EPA has determined that the primary concern for calculation of a planning distance is the transport of oil in navigable waters during adverse weather conditions. Therefore, two formulas have been developed to determine distances for planning purposes from the point of discharge at the facility to the potential site of impact on moving and still waters, respectively. The formula for oil transport on moving navigable water is based on the velocity of the water body and the time interval for arrival of response resources. The still water formula accounts for the spread of discharged oil over the surface of the water. The method to determine oil transport on tidal influence areas is based on the type of oil discharged and the distance down current during ebb tide and up current during flood tide to the point of maximum tidal influence.

1.2 EPA's formulas were designed to be simple to use. However, facility owners or operators may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such comparable formulas may result in different planning distances than EPA's formulas. In the event that an alternative formula that is comparable to one contained in this appendix is used to evaluate the criterion in 40 CFR 112.20(f)(1)(ii)(B) or (f)(1)(ii)(C), the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula and shall notify the Regional Administrator in

[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 part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

writing that an alternative formula was used.[1]

1.3 A regulated facility may meet the criteria for the potential to cause substantial harm to the environment without having to perform a planning distance calculation. For facilities that meet the substantial harm criteria because of inadequate secondary containment or oil spill history, as listed in the flowchart in Attachment C–I to this appendix, calculation of the planning distance is unnecessary. For facilities that do not meet the substantial harm criteria for secondary containment or oil spill history as listed in the flowchart, calculation of a planning distance for proximity to fish and wildlife and sensitive environments and public drinking water intakes is required, unless it is clear without performing the calculation (e.g., the facility is located in a wetland) that these areas would be impacted.

1.4 A facility owner or operator who must perform a planning distance calculation on navigable water is only required to do so for the type of navigable water conditions (i.e., moving water, still water, or tidal- influenced water) applicable to the facility. If a facility owner or operator determines that more than one type of navigable water condition applies, then the facility owner or operator is required to perform a planning distance calculation for each navigable water type to determine the greatest single distance that oil may be transported. As a result, the final planning distance for oil transport on water shall be the greatest individual distance rather than a summation of each calculated planning distance.

1.5 The planning distance formula for transport on moving waterways contains three variables: the velocity of the navigable water (v), the response time interval (t), and a conversion factor (c). The velocity, v, is determined by using the Chezy-Manning equation, which, in this case, models the flood flow rate of water in open channels. The Chezy-Manning equation contains three variables which must be determined by facility owners or operators. Manning's Roughness Coefficient (for flood flow rates), n, can be determined from Table 1 of this attachment. The hydraulic radius, r, can be estimated using the average mid-channel depth from charts provided by the sources listed in Table 2 of this attachment. The average slope of the river, s, can be determined using topographic maps that can be ordered from the U.S. Geological Survey, as listed in Table 2 of this attachment.

1.6 Table 3 of this attachment contains specified time intervals for estimating the arrival of response resources at the scene of a discharge. Assuming no prior planning, response resources should be able to arrive at the discharge site within 12 hours of the discovery of any oil discharge in Higher Volume Port Areas and within 24 hours in Great Lakes and all other river, canal, inland, and nearshore areas. The specified time intervals in Table 3 of Appendix C are to be used only to aid in the identification of whether a facility could cause substantial harm to the environment. Once it is determined that a plan must be developed for the facility, the owner or operator shall reference Appendix E to this part to determine appropriate resource levels and response times. The specified time intervals of this appendix include a 3-hour time period for deployment of boom and other response equipment. The Regional Administrator may identify additional areas as appropriate.

2.0 Oil Transport on Moving Navigable Waters

2.1 The facility owner or operator must use the following formula or a comparable formula as described in §112.20(a)(3) to calculate the planning distance for oil transport on moving navigable water:

$d = v \times t \times c$; where

d: the distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge (in miles);

v: the velocity of the river/navigable water of concern (in ft/sec) as determined by Chezy-Manning's equation (see below and Tables 1 and 2 of this attachment);

t: the time interval specified in Table 3 based upon the type of water body and location (in hours); and

c: constant conversion factor 0.68 sec/mile/hr/ft (3600 sec/hr ÷ 5280 ft/mile).

2.2 Chezy-Manning's equation is used to determine velocity:

$v = 1.5/n \times r^{2/3} \times s^{1/2}$; where

v=the velocity of the river of concern (in ft/sec);

n=Manning's Roughness Coefficient from Table 1 of this attachment;

r=the hydraulic radius; the hydraulic radius can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by 0.667

[1] For persistent oils or non-persistent oils, a worst case trajectory model (i.e., an alternative formula) may be substituted for the distance formulas described in still, moving, and tidal waters, subject to Regional Administrator's review of the model. An example of an alternative formula that is comparable to the one contained in this appendix would be a worst case trajectory calculation based on credible adverse winds, currents, and/or river stages, over a range of seasons, weather conditions, and river stages. Based on historical information or a spill trajectory model, the Agency may require that additional fish and wildlife and sensitive environments or public drinking water intakes also be protected.

(sources for obtaining the mid-channel depth are listed in Table 2 of this attachment); and

s=the average slope of the river (unitless) obtained from U.S. Geological Survey topographic maps at the address listed in Table 2 of this attachment.

TABLE 1—MANNING'S ROUGHNESS COEFFICIENT FOR NATURAL STREAMS

[NOTE: Coefficients are presented for high flow rates at or near flood stage.]

Stream description	Roughness coefficient (n)
Minor Streams (Top Width <100 ft.)	
Clean:	
Straight	0.03
Winding	0.04
Sluggish (Weedy, deep pools):	
No trees or brush	0.06
Trees and/or brush	0.10
Major Streams (Top Width >100 ft.)	
Regular section:	
(No boulders/brush)	0.035
Irregular section:	
(Brush)	0.05

TABLE 2—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION

All of the charts and related publications for navigational waters may be ordered from:
Distribution Branch
(N/CG33)
National Ocean Service
Riverdale, Maryland 20737–1199
Phone: (301) 436–6990
There will be a charge for materials ordered and a VISA or Mastercard will be accepted.
The mid-channel depth to be used in the calculation of the hydraulic radius (r) can be obtained directly from the following sources:
Charts of Canadian Coastal and Great Lakes Waters:
Canadian Hydrographic Service
Department of Fisheries and Oceans Institute
P.O. Box 8080
1675 Russell Road
Ottawa, Ontario KIG 3H6
Canada
Phone: (613) 998–4931
Charts and Maps of Lower Mississippi River (Gulf of Mexico to Ohio River and St. Francis, White, Big Sunflower, Atchafalaya, and other rivers):
U.S. Army Corps of Engineers
Vicksburg District
P.O. Box 60
Vicksburg, Mississippi 39180
Phone: (601) 634–5000
Charts of Upper Mississippi River and Illinois Waterway to Lake Michigan:
U.S. Army Corps of Engineers
Rock Island District
P.O. Box 2004
Rock Island, Illinois 61204
Phone: (309) 794–5552
Charts of Missouri River:
U.S. Army Corps of Engineers
Omaha District
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102
Phone: (402) 221–3900
Charts of Ohio River:
U.S. Army Corps of Engineers
Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201
Phone: (513) 684–3002
Charts of Tennessee Valley Authority Reservoirs, Tennessee River and Tributaries:
Tennessee Valley Authority
Maps and Engineering Section
416 Union Avenue
Knoxville, Tennessee 37902
Phone: (615) 632–2921
Charts of Black Warrior River, Alabama River, Tombigbee River, Apalachicola River and Pearl River:
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628–0001
Phone: (205) 690–2511
The average slope of the river (s) may be obtained from topographic maps:
U.S. Geological Survey
Map Distribution
Federal Center
Bldg. 41
Box 25286
Denver, Colorado 80225
Additional information can be obtained from the following sources:

1. The State's Department of Natural Resources (DNR) or the State's Aids to Navigation office;
2. A knowledgeable local marina operator; or
3. A knowledgeable local water authority (e.g., State water commission)

2.3 The average slope of the river (s) can be determined from the topographic maps using the following steps:

(1) Locate the facility on the map.

(2) Find the Normal Pool Elevation at the point of discharge from the facility into the water (A).

(3) Find the Normal Pool Elevation of the public drinking water intake or fish and wildlife and sensitive environment located downstream (B) (Note: The owner or operator should use a minimum of 20 miles downstream as a cutoff to obtain the average slope if the location of a specific public drinking water intake or fish and wildlife and sensitive environment is unknown).

(4) If the Normal Pool Elevation is not available, the elevation contours can be used to find the slope. Determine elevation of the water at the point of discharge from the facility (A). Determine the elevation of the

water at the appropriate distance downstream (B). The formula presented below can be used to calculate the slope.

(5) Determine the distance (in miles) between the facility and the public drinking water intake or fish and wildlife and sensitive environments (C).

(6) Use the following formula to find the slope, which will be a unitless value: Average Slope=[(A−B) (ft)/C (miles)] × [1 mile/5280 feet]

2.4 If it is not feasible to determine the slope and mid-channel depth by the Chezy-Manning equation, then the river velocity can be approximated on- site. A specific length, such as 100 feet, can be marked off along the shoreline. A float can be dropped into the stream above the mark, and the time required for the float to travel the distance can be used to determine the velocity in feet per second. However, this method will not yield an average velocity for the length of the stream, but a velocity only for the specific location of measurement. In addition, the flow rate will vary depending on weather conditions such as wind and rainfall. It is recommended that facility owners or operators repeat the measurement under a variety of conditions to obtain the most accurate estimate of the surface water velocity under adverse weather conditions.

2.5 The planning distance calculations for moving and still navigable waters are based on worst case discharges of persistent oils. Persistent oils are of concern because they can remain in the water for significant periods of time and can potentially exist in large quantities downstream. Owners or operators of facilities that store persistent as well as non-persistent oils may use a comparable formula. The volume of oil discharged is not included as part of the planning distance calculation for moving navigable waters. Facilities that will meet this substantial harm criterion are those with facility capacities greater than or equal to 1 million gallons. It is assumed that these facilities are capable of having an oil discharge of sufficient quantity to cause injury to fish and wildlife and sensitive environments or shut down a public drinking water intake. While owners or operators of transfer facilities that store greater than or equal to 42,000 gallons are not required to use a planning distance formula for purposes of the substantial harm criteria, they should use a planning distance calculation in the development of facility-specific response plans.

TABLE 3—SPECIFIED TIME INTERVALS

Operating areas	Substantial harm planning time (hrs)
Higher volume port area.	12 hour arrival+3 hour deployment=15 hours.
Great Lakes ...	24 hour arrival+3 hour deployment=27 hours.
All other rivers and canals, inland, and nearshore areas.	24 hour arrival+3 hour deployment=27 hours.

2.6 *Example of the Planning Distance Calculation for Oil Transport on Moving Navigable Waters.* The following example provides a sample calculation using the planning distance formula for a facility discharging oil into the Monongahela River:

(1) Solve for v by evaluating n, r, and s for the Chezy-Manning equation:

Find the roughness coefficient, n, on Table 1 of this attachment for a regular section of a major stream with a top width greater than 100 feet. The top width of the river can be found from the topographic map.

n=0.035.

Find slope, s, where A=727 feet, B=710 feet, and C=25 miles.

Solving:

$s=[(727\ ft-1710\ ft)/25\ miles]\times[1\ mile/5280\ feet]=1.3\times10^{-4}$

The average mid-channel depth is found by averaging the mid-channel depth for each mile along the length of the river between the facility and the public drinking water intake or the fish or wildlife or sensitive environment (or 20 miles downstream if applicable). This value is multiplied by 0.667 to obtain the hydraulic radius. The mid-channel depth is found by obtaining values for r and s from the sources shown in Table 2 for the Monongahela River.

Solving:

r=0.667×20 feet=13.33 feet

Solve for v using:

$v=1.5/n\times r^{2/3}\times s^{1/2}$:

$v=[1.5/0.035]\times(13.33)^{2/3}\times(1.3\times10^{-4})^{1/2}$

v=2.73 feet/second

(2) Find t from Table 3 of this attachment. The Monongahela River's resource response time is 27 hours.

(3) Solve for planning distance, d:

d=v×t×c

d=(2.73 ft/sec)×(27 hours)×(0.68 secω mile/hrω ft)

d=50 miles

Therefore, 50 miles downstream is the appropriate planning distance for this facility.

3.0 Oil Transport on Still Water

3.1 For bodies of water including lakes or ponds that do not have a measurable velocity, the spreading of the oil over the surface must be considered. Owners or operators of facilities located next to still water bodies may use a comparable means of calculating

the planning distance. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable calculation must be attached to the response plan cover sheet.

3.2 *Example of the Planning Distance Calculation for Oil Transport on Still Water.* To assist those facilities which could potentially discharge into a still body of water, the following analysis was performed to provide an example of the type of formula that may be used to calculate the planning distance. For this example, a worst case discharge of 2,000,000 gallons is used.

(1) The surface area in square feet covered by an oil discharge on still water, A1, can be determined by the following formula,[2] where V is the volume of the discharge in gallons and C is a constant conversion factor:

$A_1=10^5\times V^{3/4}\times C$

$C=0.1643$

$A_1=10^5\times(2{,}000{,}000 \text{ gallons})^{3/4}\times(0.1643)$

$A_1=8.74\times10^8 \text{ ft}^2$

(2) The spreading formula is based on the theoretical condition that the oil will spread uniformly in all directions forming a circle. In reality, the outfall of the discharge will direct the oil to the surface of the water where it intersects the shoreline. Although the oil will not spread uniformly in all directions, it is assumed that the discharge will spread from the shoreline into a semi-circle (this assumption does not account for winds or wave action).

(3) The area of a circle=† r^2

(4) To account for the assumption that oil will spread in a semi-circular shape, the area of a circle is divided by 2 and is designated as A_2.

$A_2=(\dagger r^2)/2$

Solving for the radius, r, using the relationship $A_1=A_2$: $8.74\times10^8 \text{ ft}^2=(\dagger^2)/2$

Therefore, r=23,586 ft

r=23,586 ft÷5,280 ft/mile=4.5 miles

Assuming a 20 knot wind under storm conditions:

1 knot=1.15 miles/hour

20 knots×1.15 miles/hour/knot=23 miles/hr

Assuming that the oil slick moves at 3 percent of the wind's speed:[3]

23 miles/hour×0.03=0.69 miles/hour

(5) To estimate the distance that the oil will travel, use the times required for response resources to arrive at different geographic locations as shown in Table 3 of this attachment.

For example:

For Higher Volume Port Areas: 15 hrs×0.69 miles/hr=10.4 miles

For Great Lakes and all other areas: 27 hrs×0.69 miles/hr=18.6 miles

(6) The total distance that the oil will travel from the point of discharge, including the distance due to spreading, is calculated as follows:

Higher Volume Port Areas: d=10.4+4.5 miles or approximately 15 miles

Great Lakes and all other areas: d=18.6+4.5 miles or approximately 23 miles

4.0 Oil Transport on Tidal-Influence Areas

4.1 The planning distance method for tidal influence navigable water is based on worst case discharges of persistent and non-persistent oils. Persistent oils are of primary concern because they can potentially cause harm over a greater distance. For persistent oils discharged into tidal waters, the planning distance is 15 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 15 miles, whichever is less, during flood tide.

4.2 For non-persistent oils discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide.

4.3 *Example of Determining the Planning Distance for Two Types of Navigable Water Conditions.* Below is an example of how to determine the proper planning distance when a facility could impact two types of navigable water conditions: moving water and tidal water.

(1) Facility X stores persistent oil and is located downstream from locks along a slow moving river which is affected by tides. The river velocity, v, is determined to be 0.5 feet/second from the Chezy-Manning equation used to calculate oil transport on moving navigable waters. The specified time interval, t, obtained from Table 3 of this attachment for river areas is 27 hours. Therefore, solving for the planning distance, d:

$d=v\times t\times c$

$d=(0.5 \text{ ft/sec})\times(27 \text{ hours})\times(0.68 \text{ secmile/hrft})$

$d=9.18$ miles.

(2) However, the planning distance for maximum tidal influence down current during ebb tide is 15 miles, which is greater than the calculated 9.18 miles. Therefore, 15 miles downstream is the appropriate planning distance for this facility.

5.0 Oil Transport Over Land

5.1 Facility owners or operators must evaluate the potential for oil to be transported over land to navigable waters of the United States. The owner or operator must evaluate the likelihood that portions of a worst case discharge would reach navigable

[2] Huang, J.C. and Monastero, F.C., 1982. *Review of the State-of-the-Art of Oil Pollution Models.* Final report submitted to the American Petroleum Institute by Raytheon Ocean Systems, Co., East Providence, Rhode Island.

[3] *Oil Spill Prevention & Control.* National Spill Control School, Corpus Christi State University, Thirteenth Edition, May 1990.

waters via open channel flow or from sheet flow across the land, or be prevented from reaching navigable waters when trapped in natural or man-made depressions excluding secondary containment structures.

5.2 As discharged oil travels over land, it may enter a storm drain or open concrete channel intended for drainage. It is assumed that once oil reaches such an inlet, it will flow into the receiving navigable water. During a storm event, it is highly probable that the oil will either flow into the drainage structures or follow the natural contours of the land and flow into the navigable water. Expected minimum and maximum velocities are provided as examples of open concrete channel and pipe flow. The ranges listed below reflect minimum and maximum velocities used as design criteria.[4] The calculation below demonstrates that the time required for oil to travel through a storm drain or open concrete channel to navigable water is negligible and can be considered instantaneous. The velocities are:

For open concrete channels:
maximum velocity=25 feet per second
minimum velocity=3 feet per second
For storm drains:
maximum velocity=25 feet per second
minimum velocity=2 feet per second

5.3 Assuming a length of 0.5 mile from the point of discharge through an open concrete channel or concrete storm drain to a navigable water, the travel times (distance/velocity) are:

1.8 minutes at a velocity of 25 feet per second
14.7 minutes at a velocity of 3 feet per second
22.0 minutes for at a velocity of 2 feet per second

5.4 The distances that shall be considered to determine the planning distance are illustrated in Figure C-I of this attachment. The relevant distances can be described as follows:

D1=Distance from the nearest opportunity for discharge, X_1, to a storm drain or an open concrete channel leading to navigable water.
D2=Distance through the storm drain or open concrete channel to navigable water.
D3=Distance downstream from the outfall within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down as determined by the planning distance formula.
D4=Distance from the nearest opportunity for discharge, X_2, to fish and wildlife and sensitive environments not bordering navigable water.

5.5 A facility owner or operator whose nearest opportunity for discharge is located within 0.5 mile of a navigable water must complete the planning distance calculation (D3) for the type of navigable water near the facility or use a comparable formula.

5.6 A facility that is located at a distance greater than 0.5 mile from a navigable water must also calculate a planning distance (D3) if it is in close proximity (i.e., D1 is less than 0.5 mile and other factors are conducive to oil travel over land) to storm drains that flow to navigable waters. Factors to be considered in assessing oil transport over land to storm drains shall include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity. Storm drains or concrete drainage channels that are located in close proximity to the facility can provide a direct pathway to navigable waters, regardless of the length of the drainage pipe. If D1 is less than or equal to 0.5 mile, a discharge from the facility could pose substantial harm because the time to travel the distance from the storm drain to the navigable water (D2) is virtually instantaneous.

5.7 A facility's proximity to fish and wildlife and sensitive environments not bordering a navigable water, as depicted as D4 in Figure C–I of this attachment, must also be considered, regardless of the distance from the facility to navigable waters. Factors to be considered in assessing oil transport over land to fish and wildlife and sensitive environments should include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity.

5.8 If a facility is not found to pose substantial harm to fish and wildlife and sensitive environments not bordering navigable waters via oil transport on land, then supporting documentation should be maintained at the facility. However, such documentation should be submitted with the response plan if a facility is found to pose substantial harm.

[4] The design velocities were obtained from Howard County, Maryland Department of Public Works' Storm Drainage Design Manual.

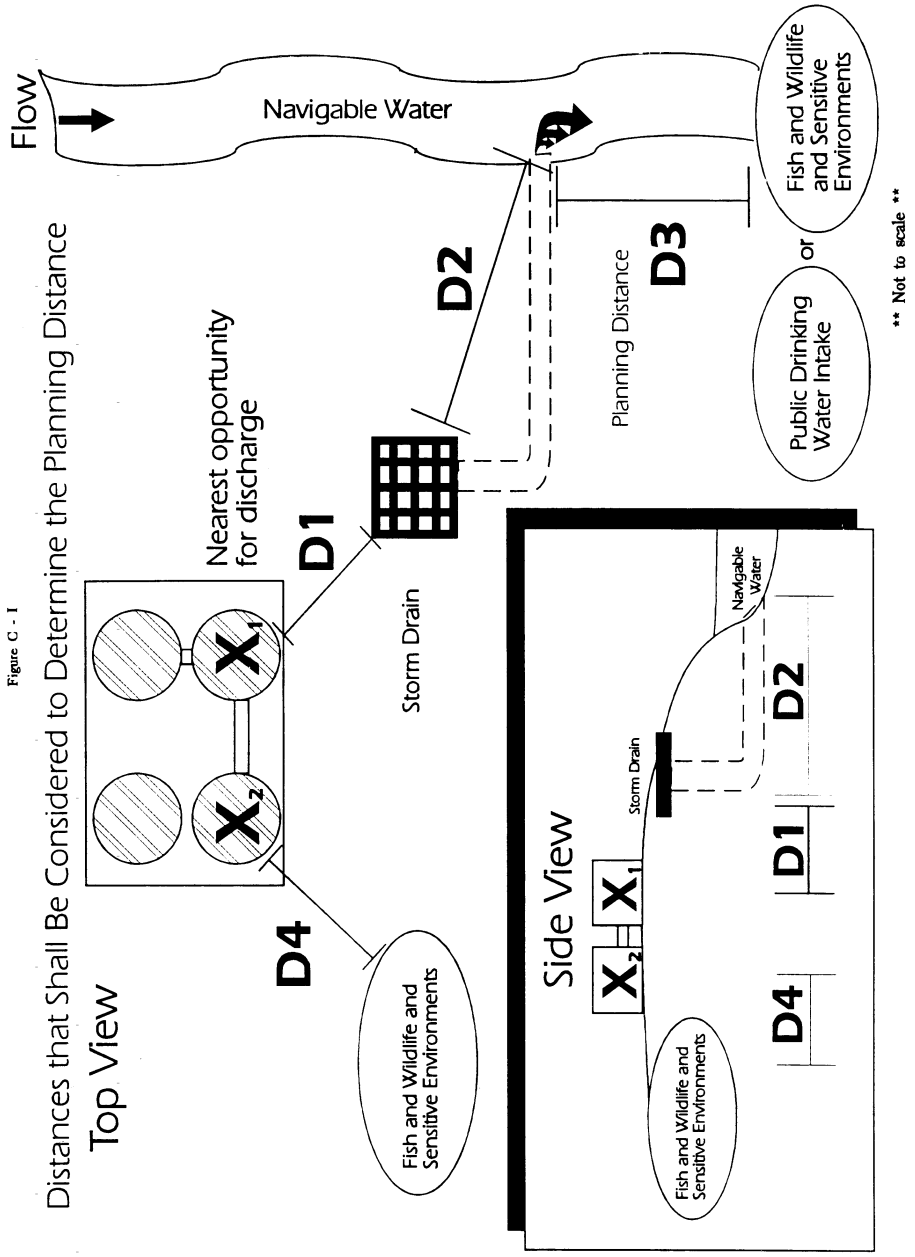


Figure C - 1

[59 FR 34102, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX D TO PART 112—DETERMINATION OF A WORST CASE DISCHARGE PLANNING VOLUME

1.0 Instructions

1.1 An owner or operator is required to complete this worksheet if the facility meets the criteria, as presented in Appendix C to this part, or it is determined by the RA that the facility could cause substantial harm to the environment. The calculation of a worst case discharge planning volume is used for emergency planning purposes, and is required in 40 CFR 112.20 for facility owners or operators who must prepare a response plan. When planning for the amount of resources and equipment necessary to respond to the worst case discharge planning volume, adverse weather conditions must be taken into consideration. An owner or operator is required to determine the facility's worst case discharge planning volume from either part A of this appendix for an onshore storage facility, or part B of this appendix for an onshore production facility. The worksheet considers the provision of adequate secondary containment at a facility.

1.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In a worst case discharge scenario, a single failure could cause the discharge of the contents of more than one tank. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge planning volume would be based on the capacity of the largest oil storage tank within a common secondary containment area or the largest oil storage tank within a single secondary containment area, whichever is greater. For permanently manifolded tanks that function as one oil storage unit, the worst case discharge planning volume would be based on the combined oil storage capacity of all manifolded tanks or the capacity of the largest single oil storage tank within a secondary containment area, whichever is greater. For purposes of this rule, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.3 For production facilities, the presence of exploratory wells, production wells, and oil storage tanks must be considered in the calculation. Part B of this appendix takes these additional factors into consideration and provides steps for their inclusion in the total worst case discharge planning volume. Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator. Although a potential worst case discharge planning volume is calculated within each section of the worksheet, the final worst case amount depends on the risk parameter that results in the greatest volume.

1.4 Marine transportation-related transfer facilities that contain fixed aboveground onshore structures used for bulk oil storage are jointly regulated by EPA and the U.S. Coast Guard (USCG), and are termed ''complexes.'' Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil, a separate calculation for the worst case discharge planning volume for USCG-related facilities is included in the USCG IFR (see Appendix E to this part, section 13, for availability). All complexes that are jointly regulated by EPA and the USCG must compare both calculations for worst case discharge planning volume derived by using the EPA and USCG methodologies and plan for whichever volume is greater.

PART A: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE STORAGE FACILITIES[1]

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility (excluding oil production facilities) if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm to the environment. If you are the owner or operator of a production facility, please proceed to part B of this worksheet.

A.1 SINGLE-TANK FACILITIES

For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the oil storage tank. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the oil storage tank, multiply the capacity of the tank by 0.8.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

[1] ''Storage facilities'' represent all facilities subject to this part, excluding oil production facilities.

A.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?[2]

_____ (Y/N)

A.2.1 If the answer is yes, the final worst case discharge planning volume equals the *total aboveground oil storage capacity at the facility*.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

A.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER ''0'' (zero).

_____ GAL

A.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A.2.2.

FINAL WORST CASE VOLUME:[3] _____ GAL

PART B: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE PRODUCTION FACILITIES

Part B of this worksheet is to be completed by the owner or operator of an SPCC-regulated oil production facility if the facility meets the criteria presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm. A production facility consists of all wells (producing and exploratory) and related equipment in a single geographical oil or gas field operated by a single operator.

B.1 SINGLE-TANK FACILITIES

B.1.1 For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the aboveground oil storage tank plus the production volume of the well with the highest output at the facility. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the storage tank, multiply the capacity of the tank by 0.8.

B.1.2 For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

B.1.3 If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

B.1.4 Attachment D–1 to this appendix provides methods for calculating the production volume for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

B.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?

_____ (Y/N)

B.2.1 If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity without adequate secondary containment plus the production volume of the well with the highest output at the facility.

(1) For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

(2) If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

(3) Attachment D–1 to this appendix provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(A) FINAL WORST CASE VOLUME: _____ GAL

(B) Do not proceed further.

[2] Secondary containment is described in 40 CFR part 112, subparts A through C. Acceptable methods and structures for containment are also given in 40 CFR 112.7(c)(1).

[3] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

B.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER ''0'' (zero).

_____ GAL

B.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the production volume of the well with the highest output, PLUS THE VOLUME FROM QUESTION B.2.2. Attachment D–1 provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME:[4]

_____ GAL

(2) Do not proceed further.

ATTACHMENTS TO APPENDIX D

ATTACHMENT D–I—METHODS TO CALCULATE PRODUCTION VOLUMES FOR PRODUCTION FACILITIES WITH EXPLORATORY WELLS OR PRODUCTION WELLS PRODUCING UNDER PRESSURE

1.0 Introduction

The owner or operator of a production facility with exploratory wells or production wells producing under pressure shall compare the well rate of the highest output well (rate of well), in barrels per day, to the ability of response equipment and personnel to recover the volume of oil that could be discharged (rate of recovery), in barrels per day. The result of this comparison will determine the method used to calculate the production volume for the production facility. This production volume is to be used to calculate the worst case discharge planning volume in part B of this appendix.

2.0 Description of Methods

2.1 Method A

If the well rate would overwhelm the response efforts (i.e., rate of well/rate of recovery ≥1), then the production volume would be the 30-day forecasted well rate for a well 10,000 feet deep or less, or the 45-day forecasted well rate for a well deeper than 10,000 feet.

(1) For wells 10,000 feet deep or less:

Production volume=30 days × rate of well.

(2) For wells deeper than 10,000 feet:

Production volume=45 days × rate of well.

2.2 Method B

2.2.1 If the rate of recovery would be greater than the well rate (i.e., rate of well/rate of recovery <1), then the production volume would equal the sum of two terms:

Production volume=discharge volume$_1$ + discharge volume$_2$

2.2.2 The first term represents the volume of the oil discharged from the well between the time of the blowout and the time the response resources are on scene and recovering oil (discharge volume$_1$).

Discharge volume$_1$=(days unattended+days to respond) × (rate of well)

2.2.3 The second term represents the volume of oil discharged from the well after the response resources begin operating until the discharge is stopped, adjusted for the recovery rate of the response resources (discharge volume $_2$).

(1) For wells 10,000 feet deep or less:

Discharge volume$_2$=[30 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

(2) For wells deeper than 10,000 feet:

Discharge volume$_2$=[45 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

3.0 Example

3.1 A facility consists of two production wells producing under pressure, which are both less than 10,000 feet deep. The well rate of well A is 5 barrels per day, and the well rate of well B is 10 barrels per day. The facility is unattended for a maximum of 7 days. The facility operator estimates that it will take 2 days to have response equipment and personnel on scene and responding to a blowout, and that the projected rate of recovery will be 20 barrels per day.

(1) First, the facility operator determines that the highest output well is well B. The facility operator calculates the ratio of the rate of well to the rate of recovery:

10 barrels per day/20 barrels per day=0.5 Because the ratio is less than one, the facility operator will use Method B to calculate the production volume.

(2) The first term of the equation is:

Discharge volume$_1$=(7 days + 2 days) × (10 barrels per day)=90 barrels

(3) The second term of the equation is:

Discharge volume $_2$=[30 days—(7 days + 2 days)] × (10 barrels per day) × (0.5)=105 barrels

(4) Therefore, the production volume is:

Production volume=90 barrels + 105 barrels=195 barrels

[4] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

3.2 If the recovery rate was 5 barrels per day, the ratio of rate of well to rate of recovery would be 2, so the facility operator would use Method A. The production volume would have been:

30 days × 10 barrels per day=300 barrels

[59 FR 34110, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40800, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX E TO PART 112—DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES FOR FACILITY RESPONSE PLANS

1.0 Purpose and Definitions

1.1 The purpose of this appendix is to describe the procedures to identify response resources to meet the requirements of §112.20. To identify response resources to meet the facility response plan requirements of 40 CFR 112.20(h), owners or operators shall follow this appendix or, where not appropriate, shall clearly demonstrate in the response plan why use of this appendix is not appropriate at the facility and make comparable arrangements for response resources.

1.2 Definitions.

1.2.1 *Animal fat* means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin. Animal fats are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.2 *Nearshore* is an operating area defined as extending seaward 12 miles from the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending 12 miles from the line of demarcation (COLREG lines) defined in 49 CFR 80.740 and 80.850.

1.2.3 *Non-persistent oils* or *Group 1 oils* include:

(1) A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

(A) At least 50 percent of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and

(B) At least 95 percent of which by volume, distill at a temperature of 370 degrees C (700 degrees F); and

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity less than 0.8.

1.2.4 *Non-petroleum oil* means oil of any kind that is not petroleum-based, including but not limited to: fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

1.2.5 *Ocean* means the nearshore area.

1.2.6 *Operating area* means Rivers and Canals, Inland, Nearshore, and Great Lakes geographic location(s) in which a facility is handling, storing, or transporting oil.

1.2.7 *Operating environment* means Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

1.2.8 *Persistent oils* include:

(1) A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. Persistent oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity of 0.8 or greater. These oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity equal to or greater than 0.8 and less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

1.2.9 *Vegetable oil* means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels. Vegetable oils are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.10 Other definitions are included in §112.2, section 1.1 of Appendix C, and section 3.0 of Appendix F.

2.0 Equipment Operability and Readiness

2.1 All equipment identified in a response plan must be designed to operate in the conditions expected in the facility's geographic area (i.e., operating environment). These conditions vary widely based on location and season. Therefore, it is difficult to identify a single stockpile of response equipment that will function effectively in each geographic location (i.e., operating area).

2.2 Facilities handling, storing, or transporting oil in more than one operating environment as indicated in Table 1 of this appendix must identify equipment capable of successfully functioning in each operating environment.

2.3 When identifying equipment for the response plan (based on the use of this appendix), a facility owner or operator must consider the inherent limitations of the operability of equipment components and response systems. The criteria in Table 1 of this appendix shall be used to evaluate the operability in a given environment. These criteria reflect the general conditions in certain operating environments.

2.3.1 The Regional Administrator may require documentation that the boom identified in a facility response plan meets the criteria in Table 1 of this appendix. Absent acceptable documentation, the Regional Administrator may require that the boom be tested to demonstrate that it meets the criteria in Table 1 of this appendix. Testing must be in accordance with ASTM F 715, ASTM F 989, or other tests approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

2.4 Table 1 of this appendix lists criteria for oil recovery devices and boom. All other equipment necessary to sustain or support response operations in an operating environment must be designed to function in the same conditions. For example, boats that deploy or support skimmers or boom must be capable of being safely operated in the significant wave heights listed for the applicable operating environment.

2.5 A facility owner or operator shall refer to the applicable Area Contingency Plan (ACP), where available, to determine if ice, debris, and weather-related visibility are significant factors to evaluate the operability of equipment. The ACP may also identify the average temperature ranges expected in the facility's operating area. All equipment identified in a response plan must be designed to operate within those conditions or ranges.

2.6 This appendix provides information on response resource mobilization and response times. The distance of the facility from the storage location of the response resources must be used to determine whether the resources can arrive on-scene within the stated time. A facility owner or operator shall include the time for notification, mobilization, and travel of resources identified to meet the medium and Tier 1 worst case discharge requirements identified in sections 4.3 and 9.3 of this appendix (for medium discharges) and section 5.3 of this appendix (for worst case discharges). The facility owner or operator must plan for notification and mobilization of Tier 2 and 3 response resources as necessary to meet the requirements for arrival on-scene in accordance with section 5.3 of this appendix. An on-water speed of 5 knots and a land speed of 35 miles per hour is assumed, unless the facility owner or operator can demonstrate otherwise.

2.7 In identifying equipment, the facility owner or operator shall list the storage location, quantity, and manufacturer's make and model. For oil recovery devices, the effective daily recovery capacity, as determined using section 6 of this appendix, must be included. For boom, the overall boom height (draft and freeboard) shall be included. A facility owner or operator is responsible for ensuring that the identified boom has compatible connectors.

3.0 Determining Response Resources Required for Small Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

3.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

3.2 Complexes that are regulated by EPA and the United States Coast Guard (USCG) must also consider planning quantities for the transportation-related transfer portion of the facility.

3.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's ''small discharge'' is termed ''the average most probable discharge.'' A USCG rule found at 33 CFR 154.1020 defines ''the average most probable discharge'' as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of complexes that handle, store, or transport petroleum oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

3.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a small discharge. There is no USCG planning level that directly corresponds to EPA's ''small discharge.'' However, the USCG (at 33 CFR 154.545) has requirements to identify equipment to contain oil resulting from an operational discharge.

3.3 The response resources shall, as appropriate, include:

3.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

3.3.2 Oil recovery devices with an effective daily recovery capacityequal to the amount of oil discharged in a small discharge or greater which is available at the

facility within 2 hours of the detection of an oil discharge; and

3.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

4.0 Determining Response Resources Required for Medium Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

4.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of oil for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

4.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility.

4.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's ''medium discharge'' is termed ''the maximum most probable discharge.'' The USCG rule found at 33 CFR part 154 defines ''the maximum most probable discharge'' as a discharge of 1,200 barrels (50,400 gallons) or 10 percent of the worst case discharge, whichever is less. Owners or operators of complexes that handle, store, or transport petroleum oils must compare calculated discharge volumes for a medium discharge and a maximum most probable discharge, and plan for whichever quantity is greater.

4.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's ''medium discharge.''

4.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

4.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 4.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

4.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

4.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

4.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area: The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

5.0 Determining Response Resources Required for the Worst Case Discharge to the Maximum Extent Practicable

5.1 A facility owner or operator shall identify and ensure the availability of, by

contract or other approved means as described in §112.2, sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. Sections 7 and 10 of this appendix describe the method to determine the necessary response resources. Worksheets are provided as Attachments E–1 and E–2 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.1 A facility owner or operator shall identify and ensure the availability of, by contract or other approved means as described in §112.2, sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. Sections 7 and 10 of this appendix describe the method to determine the necessary response resources. Worksheets are provided as Attachments E–1 and E–2 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.2 Complexes that are regulated by EPA and the USCG must also consider planning for the worst case discharge at the transportation-related portion of the facility. The USCG requires that transportation-related facility owners or operators use a different calculation for the worst case discharge in the revisions to 33 CFR part 154. Owners or operators of complex facilities that are regulated by EPA and the USCG must compare both calculations of worst case discharge derived by EPA and the USCG and plan for whichever volume is greater.

5.3 Oil discharge response resources identified in the response plan and available, by contract or other approved means as described in §112.2, to meet the applicable worst case discharge planning volume must be located such that they are capable of arriving at the scene of a discharge within the times specified for the applicable response tier listed as follows

	Tier 1 (in hours)	Tier 2 (in hours)	Tier 3 (in hours)
Higher volume port areas	6	30	54
Great Lakes	12	36	60
All other river and canal, inland, and nearshore areas	12	36	60

The three levels of response tiers apply to the amount of time in which facility owners or operators must plan for response resources to arrive at the scene of a discharge to respond to the worst case discharge planning volume. For example, at a worst case discharge in an inland area, the first tier of response resources (*i.e.,* that amount of on-water and shoreline cleanup capacity necessary to respond to the fraction of the worst case discharge as indicated through the series of steps described in sections 7.2 and 7.3 or sections 10.2 and 10.3 of this appendix) would arrive at the scene of the discharge within 12 hours; the second tier of response resources would arrive within 36 hours; and the third tier of response resources would arrive within 60 hours.

5.4 The effective daily recovery capacity for oil recovery devices identified in the response plan must be determined using the criteria in section 6 of this appendix. A facility owner or operator shall identify the storage locations of all response resources used for each tier. The owner or operator of a facility whose required daily recovery capacity exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment, their location, and the arrangements made to obtain this equipment during a response. The owner or operator of a facility whose calculated planning volume exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment equal to twice the cap listed in Tier 3 or the amount necessary to reach the calculated planning volume, whichever is lower. The resources identified above the cap shall be capable of arriving on-scene not later than the Tier 3 response times in section 5.3 of this appendix. No contract is required. While general listings of available response equipment may be used to identify additional sources (i.e., ''public'' resources vs. ''private'' resources), the response plan shall identify the specific sources, locations, and quantities of equipment that a facility owner or operator has considered in his or her planning. When listing USCG-classified oil spill removal organization(s) that have sufficient removal capacity to recover the volume above the response capacity cap for the specific facility, as specified in Table 5 of this appendix, it is not necessary to list specific quantities of equipment.

5.5 A facility owner or operator shall identify the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

5.6 When selecting response resources necessary to meet the response plan requirements, the facility owner or operator shall, as appropriate, ensure that a portion of

those resources is capable of being used in close-to-shore response activities in shallow water. For any EPA-regulated facility that is required to plan for response in shallow water, at least 20 percent of the on-water response equipment identified for the applicable operating area shall, as appropriate, be capable of operating in water of 6 feet or less depth.

5.7 In addition to oil spill recovery devices, a facility owner or operator shall identify sufficient quantities of boom that are available, by contract or other approved means as described in §112.2, to arrive on-scene within the specified response times for oil containment and collection. The specific quantity of boom required for collection and containment will depend on the facility-specific information and response strategies employed. A facility owner or operator shall, as appropriate, also identify sufficient quantities of oil containment boom to protect fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability), and the applicable ACP. Refer to this guidance document for the number of days and geographic areas (*i.e.*, operating environments) specified in Table 2 and Table 6 of this appendix.

5.8 A facility owner or operator shall also identify, by contract or other approved means as described in §112.2, the availability of an oil spill removal organization(s) (as described in §112.2) capable of responding to a shoreline cleanup operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline. The volume of oil that shall, as appropriate, be planned for is calculated through the application of factors contained in Tables 2, 3, 6, and 7 of this appendix. The volume calculated from these tables is intended to assist the facility owner or operator to identify an oil spill removal organization with sufficient resources and expertise.

6.0 Determining Effective Daily Recovery Capacity for Oil Recovery Devices

6.1 Oil recovery devices identified by a facility owner or operator must be identified by the manufacturer, model, and effective daily recovery capacity. These capacities must be used to determine whether there is sufficient capacity to meet the applicable planning criteria for a small discharge, a medium discharge, and a worst case discharge to the maximum extent practicable.

6.2 To determine the effective daily recovery capacity of oil recovery devices, the formula listed in section 6.2.1 of this appendix shall be used. This formula considers potential limitations due to available daylight, weather, sea state, and percentage of emulsified oil in the recovered material. The RA may assign a lower efficiency factor to equipment listed in a response plan if it is determined that such a reduction is warranted.

6.2.1 The following formula shall be used to calculate the effective daily recovery capacity:

$R = T \times 24 \text{ hours} \times E$

where:

R—Effective daily recovery capacity;
T—Throughput rate in barrels per hour (nameplate capacity); and
E—20 percent efficiency factor (or lower factor as determined by the Regional Administrator).

6.2.2 For those devices in which the pump limits the throughput of liquid, throughput rate shall be calculated using the pump capacity.

6.2.3 For belt or moptype devices, the throughput rate shall be calculated using the speed of the belt or mop through the device, assumed thickness of oil adhering to or collected by the device, and surface area of the belt or mop. For purposes of this calculation, the assumed thickness of oil will be ¼ inch.

6.2.4 Facility owners or operators that include oil recovery devices whose throughput is not measurable using a pump capacity or belt/mop speed may provide information to support an alternative method of calculation. This information must be submitted following the procedures in section 6.3.2 of this appendix.

6.3 As an alternative to section 6.2 of this appendix, a facility owner or operator may submit adequate evidence that a different effective daily recovery capacity should be applied for a specific oil recovery device. Adequate evidence is actual verified performance data in discharge conditions or tests using American Society of Testing and Materials (ASTM) Standard F 631–99, F 808–83 (1999), or an equivalent test approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

6.3.1 The following formula must be used to calculate the effective daily recovery capacity under this alternative:

$R = D \times U$

where:

R—Effective daily recovery capacity;
D—Average Oil Recovery Rate in barrels per hour (Item 26 in F 808–83; Item 13.2.16 in F 631–99; or actual performance data); and
U—Hours per day that equipment can operate under discharge conditions. Ten hours per day must be used unless a facility owner or operator can demonstrate that the recovery operation can be sustained for longer periods.

6.3.2 A facility owner or operator submitting a response plan shall provide data that supports the effective daily recovery capacities for the oil recovery devices listed. The following is an example of these calculations:

(1) A weir skimmer identified in a response plan has a manufacturer's rated throughput at the pump of 267 gallons per minute (gpm).

267 gpm=381 barrels per hour (bph)
R=381 bph×24 hr/day×0.2=1,829 barrels per day

(2) After testing using ASTM procedures, the skimmer's oil recovery rate is determined to be 220 gpm. The facility owner or operator identifies sufficient resources available to support operations for 12 hours per day.

220 gpm=314 bph
R=314 bph×12 hr/day=3,768 barrels per day

(3) The facility owner or operator will be able to use the higher capacity if sufficient temporary oil storage capacity is available. Determination of alternative efficiency factors under section 6.2 of this appendix or the acceptability of an alternative effective daily recovery capacity under section 6.3 of this appendix will be made by the Regional Administrator as deemed appropriate.

7.0 Calculating Planning Volumes for a Worst Case Discharge—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

7.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to evaporative and natural dissipation, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline. The procedures for non-petroleum oils other than animal fats and vegetable oils are discussed in section 7.7 of this appendix.

7.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

7.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, 4, 5) or non-persistent (Group 1)]; and the facility's specific operating area. See sections 1.2.3 and 1.2.8 of this appendix for the definitions of non-persistent and persistent oils, respectively. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 2 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 2 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

7.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 3 of this appendix. Facilities that handle, store, or transport oil from different petroleum groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

7.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of an oil discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

7.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 2 of this appendix. The facility owner or operator shall identify and ensure the availability, by contract or other approved means as described in §112.2, of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1993 must make arrangements to identify and ensure the availability, by contract or other approved means as described in §112.2, for additional capacity to be under contract by 1998 or 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume

must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's total oil storage capacity.

7.3 The procedures discussed in sections 7.3.1–7.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Group 1 through Group 4 oils).

7.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, or 4) or non-persistent (Group 1)]; and the geographic area(s) in which the facility operates (*i.e.*, operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 2 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

7.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 7.2.2 of this appendix.

7.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

7.4 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 1 through Group 4 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for Group 1 through Group 4 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.5 The following is an example of the procedure described above in sections 7.2 and 7.3 of this appendix: A facility with a 270,000 barrel (11.3 million gallons) capacity for #6 oil (specific gravity 0.96) is located in a higher volume port area. The facility is on a peninsula and has docks on both the ocean and bay sides. The facility has four aboveground oil storage tanks with a combined total capacity of 80,000 barrels (3.36 million gallons) and no secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (90,000 barrels or 3.78 million gallons) has its own secondary containment. Two 50,000 barrel (2.1 million gallon) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 100,000 barrels (4.2 million gallons) plus sufficient freeboard.

7.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground oil storage tanks without secondary containment (80,000 barrels) plus the capacity of the largest aboveground oil storage tank inside secondary containment. The resulting worst case discharge volume is 170,000 barrels or 7.14 million gallons.

7.5.2 Because the requirements for Tiers 1, 2, and 3 for inland and nearshore exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response to 10,000 barrels per day (bpd) for Tier 1, 20,000 bpd for Tier 2, and 40,000 bpd for Tier 3. Resources for the remaining 7,850 bpd for Tier 1, 9,750 bpd for Tier 2, and 7,600 bpd for Tier 3 shall be identified but need not be contracted for in advance. The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in their response plan for the protection of fish and wildlife and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments,'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be impacted in the event of a worst case discharge.

7.6 The procedures discussed in sections 7.6.1–7.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group 5 oils.

7.6.1 The owner or operator of a facility that handles, stores, or transports Group 5 oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored,, or transported.

7.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group 5 oils under section 7.6.1 of this appendix shall be capable of being deployed (on site) within 24 hours of discovery of a discharge to the area where the facility is operating.

7.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 5 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group 5 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.7 *Non-petroleum oils other than animal fats and vegetable oils.* The procedures described in sections 7.7.1 through 7.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

7.7.1 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must provide information in his or her plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

7.7.2 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the conditions expected in the geographic area(s) (*i.e.,* operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

7.7.3 The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of non-petroleum oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

7.7.4 Response resources identified in a response plan according to section 7.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

7.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for fires of these oils. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

8.0 Determining Response Resources Required for Small Discharges—Animal Fats and Vegetable Oils

8.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge of animal fats or vegetable oils. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

8.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the marine transportation-related portion of the facility.

8.2.1 The USCG planning level that corresponds to EPA's ''small discharge'' is termed ''the average most probable discharge.'' A USCG rule found at 33 CFR 154.1020 defines ''the average most probable discharge'' as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of complexes that handle, store, or transport animal fats and vegetable oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

8.3 The response resources shall, as appropriate, include:

8.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

8.3.2 Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge or greater which is available at the facility within 2 hours of the detection of a discharge; and

8.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

9.0 Determining Response Resources Required for Medium Discharges—Animal Fats and Vegetable Oils

9.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetable oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

9.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility. Owners or operators of complexes that handle, store, or transport animal fats or vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's ''medium discharge.'' Although the USCG does not have planning requirements for medium discharges, they do have requirements (at 33 CFR 154.545) to identify equipment to contain oil resulting from an operational discharge.

9.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

9.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 9.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

9.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (59 FR 14713–22, March 29, 1994) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

9.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

9.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area:

The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the

daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

10.0 Calculating Planning Volumes for a Worst Case Discharge—Animal Fats and Vegetable Oils.

10.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to physical, chemical, and biological processes, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline or on sediments. The response planning procedures for animal fats and vegetable oils are discussed in section 10.7 of this appendix. You may use alternate response planning procedures for animal fats and vegetable oils if those procedures result in environmental protection equivalent to that provided by the procedures in section 10.7 of this appendix.

10.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

10.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A, B, C); and the facility's specific operating area. See sections 1.2.1 and 1.2.9 of this appendix for the definitions of animal fats and vegetable oils and groups thereof. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 6 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 6 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

10.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 7 of this appendix. Facilities that handle, store, or transport oil from different groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

10.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of a discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

10.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 6 of this appendix. The facility owner or operator shall identify and ensure, by contract or other approved means as described in §112.2, the availability of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1998 must make arrangements to identify and ensure, by contract or other approved means as described in §112.2, the availability of additional capacity to be under contract by 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's oil storage capacity.

10.3 The procedures discussed in sections 10.3.1 through 10.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Groups A and B oils).

10.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A or B); and the geographic area(s) in which the facility operates

(i.e., operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 6 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

10.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 10.2.2 of this appendix.

10.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

10.4 A response plan must identify response resources with fire fighting capability appropriate for the risk of fire and explosion at the facility from the discharge or threat of discharge of oil. The owner or operator of a facility that handles, stores, or transports Group A or B oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual to work with the fire department for Group A or B oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.5 The following is an example of the procedure described in sections 10.2 and 10.3 of this appendix. A facility with a 37.04 million gallon (881,904 barrel) capacity of several types of vegetable oils is located in the Inland Operating Area. The vegetable oil with the highest specific gravity stored at the facility is soybean oil (specific gravity 0.922, Group B vegetable oil). The facility has ten aboveground oil storage tanks with a combined total capacity of 18 million gallons (428,571 barrels) and without secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (3 million gallons or 71,428 barrels) has its own secondary containment. Two 2.1 million gallon (50,000 barrel) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 4.2 million gallons (100,000 barrels) plus sufficient freeboard.

10.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground vegetable oil storage tanks without secondary containment (18.0 million gallons) plus the capacity of the largest aboveground storage tank inside secondary containment (3.0 million gallons). The resulting worst case discharge is 21 million gallons or 500,000 barrels.

10.5.2 With a specific worst case discharge identified, the planning volume for on-water recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil

Operating Area: Inland

Planned percent recovered floating vegetable oil (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 20%

Emulsion factor (from Table 7): 2.0

Planning volumes for on-water recovery: 21,000,000 gallons × 0.2 × 2.0 = 8,400,000 gallons or 200,000 barrels.

Determine required resources for on-water recovery for each of the three tiers using mobilization factors (from Table 4, column Inland/Nearshore/Great Lakes)

Inland Operating Area	Tier 1	Tier 2	Tier 3
Mobilization factor by which you multiply planning volume	.15	.25	.40
Estimated Daily Recovery Capacity (bbls)	30,000	50,000	80,000

10.5.3 Because the requirements for On-Water Recovery Resources for Tiers 1, 2, and 3 for Inland Operating Area exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response of 12,500 barrels per day (bpd) for Tier 1, 25,000 bpd for Tier 2, and 50,000 bpd for Tier 3. Resources for the remaining 17,500 bpd for Tier 1, 25,000 bpd for Tier 2, and 30,000 bpd for Tier 3 shall be identified but need not be contracted for in advance.

10.5.4 With the specific worst case discharge identified, the planning volume of onshore recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil

Operating Area: Inland

Planned percent recovered floating vegetable oil from onshore (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 65%

Emulsion factor (from Table 7): 2.0

Planning volumes for shoreline recovery:

21,000,000 gallons × 0.65 × 2.0 = 27,300,000 gallons or 650,000 barrels

10.5.5 The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in the response plan for the protection of fish and wildlife

and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments,'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be adversely affected in the event of a worst case discharge.

10.6 The procedures discussed in sections 10.6.1 through 10.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group C oils.

10.6.1 The owner or operator of a facility that handles, stores, or transports Group C oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored, or transported.

10.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group C oils under section 10.6.1 of this appendix shall be capable of being deployed on scene within 24 hours of discovery of a discharge.

10.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group C oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group C oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.7 The procedures described in sections 10.7.1 through 10.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

10.7.1 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must provide information in the response plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge of animal fats and vegetable oils to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

10.7.2 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the geographic area(s) (*i.e.,* operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

10.7.3. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of animal fat or vegetable oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

10.7.4 Response resources identified in a response plan according to section 10.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

10.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils that does not have adequate fire fighting resources located at

the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for animal fat and vegetable oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

11.0 Determining the Availability of Alternative Response Methods

11.1 For chemical agents to be identified in a response plan, they must be on the NCP Product Schedule that is maintained by EPA. (Some States have a list of approved dispersants for use within State waters. Not all of these State-approved dispersants are listed on the NCP Product Schedule.)

11.2 Identification of chemical agents in the plan does not imply that their use will be authorized. Actual authorization will be governed by the provisions of the NCP and the applicable ACP.

12.0 Additional Equipment Necessary to Sustain Response Operations

12.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetables oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

12.2 A facility owner or operator shall evaluate the availability of adequate temporary storage capacity to sustain the effective daily recovery capacities from equipment identified in the plan. Because of the inefficiencies of oil spill recovery devices, response plans must identify daily storage capacity equivalent to twice the effective daily recovery capacity required on-scene. This temporary storage capacity may be reduced if a facility owner or operator can demonstrate by waste stream analysis that the efficiencies of the oil recovery devices, ability to decant waste, or the availability of alternative temporary storage or disposal locations will reduce the overall volume of oily material storage.

12.3 A facility owner or operator shall ensure that response planning includes the capability to arrange for disposal of recovered oil products. Specific disposal procedures will be addressed in the applicable ACP.

13.0 References and Availability

13.1 All materials listed in this section are part of EPA's rulemaking docket and are located in the Superfund Docket, 1235 Jefferson Davis Highway, Crystal Gateway 1, Arlington, Virginia 22202, Suite 105 (Docket Numbers SPCC–2P, SPCC–3P, and SPCC–9P). The docket is available for inspection between 9 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays.

Appointments to review the docket can be made by calling 703–603–9232. Docket hours are subject to change. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services.

13.2 The docket will mail copies of materials to requestors who are outside the Washington, DC metropolitan area. Materials may be available from other sources, as noted in this section. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services. The RCRA/Superfund Hotline at 800–424–9346 may also provide additional information on where to obtain documents. To contact the RCRA/Superfund Hotline in the Washington, DC metropolitan area, dial 703–412–9810. The Telecommunications Device for the Deaf (TDD) Hotline number is 800–553–7672, or, in the Washington, DC metropolitan area, 703–412–3323.

13.3 Documents

(1) National Preparedness for Response Exercise Program (PREP). The PREP draft guidelines are available from United States Coast Guard Headquarters (G-MEP-4), 2100 Second Street, SW., Washington, DC 20593. (See 58 FR 53990–91, October 19, 1993, Notice of Availability of PREP Guidelines).

(2) ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments (published in the Federal Register by DOC/NOAA at 59 FR 14713–22, March 29, 1994.). The guidance is available in the Superfund Docket (see sections 13.1 and 13.2 of this appendix).

(3) ASTM Standards. ASTM F 715, ASTM F 989, ASTM F 631–99, ASTM F 808–83 (1999). The ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

(4) Response Plans for Marine Transportation-Related Facilities, Interim Final Rule. Published by USCG, DOT at 58 FR 7330–76, February 5, 1993.

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA

Oil Recovery Devices		
Operating environment	Significant wave height [1]	Sea state
Rivers and Canals	≤ 1 foot	1
Inland	≤ 3 feet	2
Great Lakes	≤ 4 feet	2–3
Ocean	≤ 6 feet	3–4

Boom				
Boom property	Use			
	Rivers and canals	Inland	Great Lakes	Ocean
Significant Wave Height [1]	≤ 1	≤ 3	≤ 4	≤ 6
Sea State	1	2	2–3	3–4
Boom height—inches (draft plus freeboard)	6–18	18–42	18–42	≥42
Reserve Buoyancy to Weight Ratio	2:1	2:1	2:1	3:1 to 4:1
Total Tensile Strength—pounds	4,500	15,000–20,000.	15,000–20,000.	≥20,000
Skirt Fabric Tensile Strength—pounds	200	300	300	500
Skirt Fabric Tear Strength—pounds	100	100	100	125

[1] Oil recovery devices and boom *shall* be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR PETROLEUM OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group [1]	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore
1—Non-persistent oils	80	10	10	80	20	10
2—Light crudes	40	15	45	50	50	30
3—Medium crudes and fuels	20	15	65	30	50	50
4—Heavy crudes and fuels	5	20	75	10	50	70

[1] The response resource considerations for non-petroleum oils other than animal fats and vegetable oils are outlined in section 7.7 of this appendix.

NOTE: Group 5 oils are defined in section 1.2.8 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS [1]

Non-Persistent Oil:	
Group 1	1.0
Persistent Oil:	
Group 2	1.8
Group 3	2.0
Group 4	1.4
Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.	

[1] See sections 1.2.2 and 1.2.7 of this appendix for group designations for non-persistent and persistent oils, respectively.

TABLE 4 TO APPENDIX E—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

Operating area	Tier 1	Tier 2	Tier 3
Rivers and Canals	0.30	0.40	0.60
Inland/Nearshore Great Lakes	0.15	0.25	0.40

Note: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA

	Tier 1	Tier 2	Tier 3
February 18, 1993:			
All except Rivers & Canals, Great Lakes	10K bbls/day	20K bbls/day	40K bbls/day.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA—Continued

	Tier 1	Tier 2	Tier 3
Great Lakes	5K bbls/day	10K bbls/day	20K bbls/day.
Rivers & Canals	1.5K bbls/day	3.0K bbls/day	6.0K bbls/day.
February 18, 1998:			
All except Rivers & Canals, Great Lakes	12.5K bbls/day	25K bbls/day	50K bbls/day.
Great Lakes	6.35K bbls/day	12.3K bbls/day	25K bbls/day.
Rivers & Canals	1.875K bbls/day	3.75K bbls/day	7.5K bbls/day.
February 18, 2003:			
All except Rivers & Canals, Great Lakes	TBD	TBD	TBD.
Great Lakes	TBD	TBD	TBD.
Rivers & Canals	TBD	TBD	TBD.

Note: The caps show cumulative overall effective daily recovery capacity, not incremental increases.
TBD=To Be Determined.

TABLE 6 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR ANIMAL FATS AND VEGETABLE OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group [1]	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore
Group A	40	15	45	50	20	30
Group B	20	15	65	30	20	50

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

NOTE: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

TABLE 7 TO APPENDIX E—EMULSIFICATION FACTORS FOR ANIMAL FATS AND VEGETABLE OILS

Oil Group [1]:	
Group A	1.0
Group B	2.0

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

NOTE: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

ATTACHMENTS TO APPENDIX E

Attachment E-1 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) _____ (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . _____

Step (C) Operating Area (choose one) . . . . ☐ Near shore/Inland Great Lakes ☐ or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step(A)}}{100}$ _____ (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . . _____ (E2)

Step (F) Emulsification Factor
(Table 3 of this appendix) . . . . . _____ (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-1 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . . [ ]

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-1 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) 170,000 (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . 4

Step (C) Operating Area (choose one) . . [X] Near shore/Inland Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
10	50	70
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ 85,000 (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ 119,000 (E2)

Step (F) Emulsification Factor (Table 3 of this appendix) . . . . . 1.4 (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.15	0.25	0.40
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-1 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
17,850	29,750	47,600
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 166,600

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
10,000	20,000	40,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
7,850	9,750	7,600
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-2 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) [ ] (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . [ ]

Step (C) Operating Area (choose one) . . . . [ ] Near shore/Inland Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
[ ] (D1)	[ ] (D2)	[ ] (D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ [ ] (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . [ ] (E2)

Step (F) Emulsification Factor
(Table 7 of this appendix) . . . . . [ ] (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
[ ] (G1)	[ ] (G2)	[ ] (G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-2 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . [ ]

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-2 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) . . . . . 500,000 (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . . . . . B

Step (C) Operating Area (choose one) [X] Near shore/Inl and Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
30 (D1)	20 (D2)	50 (D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ 100,000 (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ 250,000 (E2)

Step (F) Emulsification Factor (Table 7 of this appendix) . . . . . 2.0 (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.15 (G1)	0.25 (G2)	0.40 (G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-2 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils (continued)

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
30,000	50,000	80,000
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 500,000

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
12,500	25,000	50,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
17,500	25,000	30,000
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

[59 FR 34111, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40806, 40807, June 30, 2000; 65 FR 47325, Aug. 2, 2000; 66 FR 47325, Aug. 2, 2000; 66 FR 35460, 35461, June 29, 2001]

APPENDIX F TO PART 112—FACILITY-SPECIFIC RESPONSE PLAN

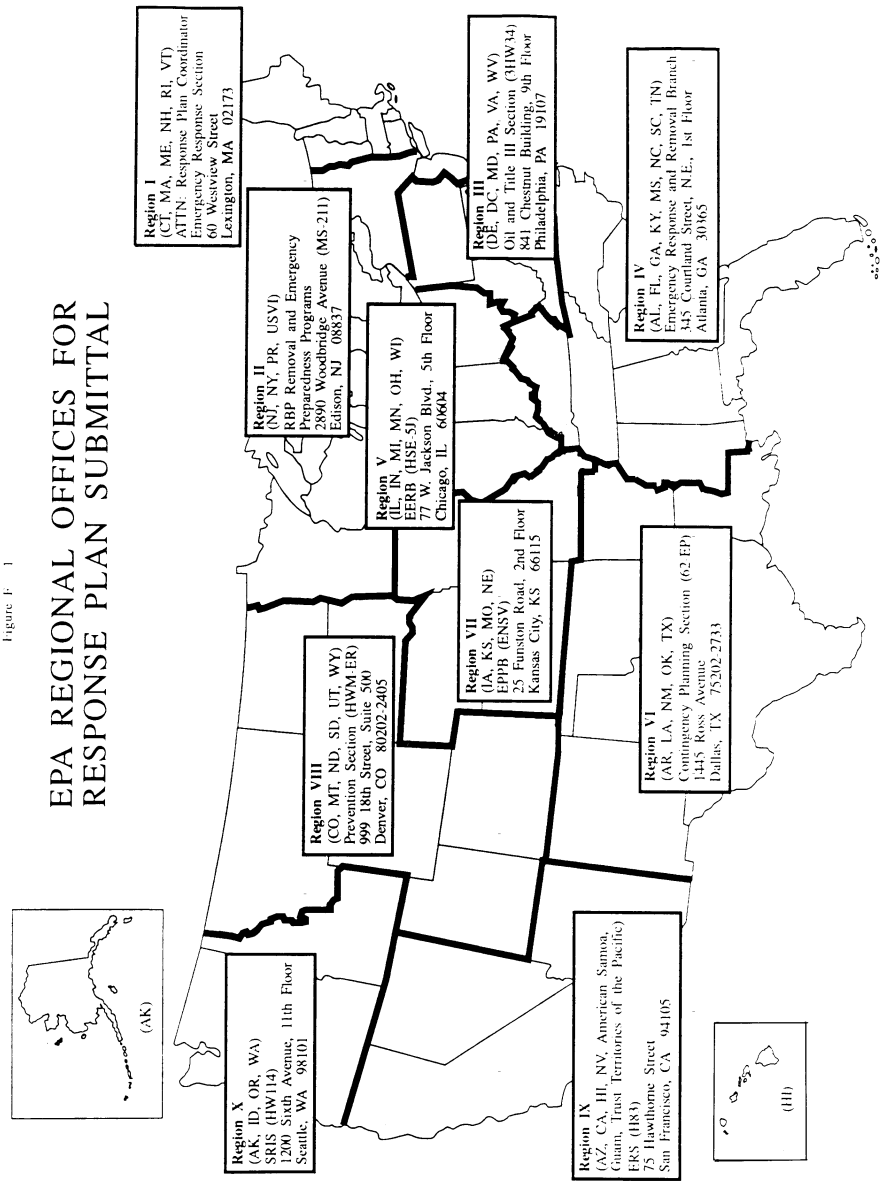
Table of Contents

1.0 Model Facility-Specific Response Plan

(A) Owners or operators of facilities regulated under this part which pose a threat of substantial harm to the environment by discharging oil into or on navigable waters or adjoining shorelines are required to prepare and submit facility-specific response plans to EPA in accordance with the provisions in this appendix. This appendix further describes the required elements in §112.20(h).

(B) Response plans must be sent to the appropriate EPA Regional office. Figure F–1 of this Appendix lists each EPA Regional office and the address where owners or operators must submit their response plans. Those facilities deemed by the Regional Administrator (RA) to pose a threat of significant and substantial harm to the environment will have their plans reviewed and approved by EPA. In certain cases, information required in the model response plan is similar to information currently maintained in the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan as required by 40 CFR 112.3. In these cases, owners or operators may reproduce the information and include a photocopy in the response plan.

(C) A complex may develop a single response plan with a set of core elements for all regulating agencies and separate sections for the non-transportation-related and transportation-related components, as described in §112.20(h). Owners or operators of large facilities that handle, store, or transport oil at more than one geographically distinct location (e.g., oil storage areas at opposite ends of a single, continuous parcel of property) shall, as appropriate, develop separate sections of the response plan for each storage area.



1.1 Emergency Response Action Plan

Several sections of the response plan shall be co-located for easy access by response personnel during an actual emergency or oil discharge. This collection of sections shall be called the Emergency Response Action Plan. The Agency intends that the Action Plan contain only as much information as is necessary to combat the discharge and be arranged so response actions are not delayed. The Action Plan may be arranged in a number of ways. For example, the sections of the Emergency Response Action Plan may be photocopies or condensed versions of the

forms included in the associated sections of the response plan. Each Emergency Response Action Plan section may be tabbed for quick reference. The Action Plan shall be maintained in the front of the same binder that contains the complete response plan or it shall be contained in a separate binder. In the latter case, both binders shall be kept together so that the entire plan can be accessed by the qualified individual and appropriate spill response personnel. The Emergency Response Action Plan shall be made up of the following sections:

1. Qualified Individual Information (Section 1.2) partial
2. Emergency Notification Phone List (Section 1.3.1) partial
3. Spill Response Notification Form (Section 1.3.1) partial
4. Response Equipment List and Location (Section 1.3.2) complete
5. Response Equipment Testing and Deployment (Section 1.3.3) complete
6. Facility Response Team (Section 1.3.4) partial
7. Evacuation Plan (Section 1.3.5) condensed
8. Immediate Actions (Section 1.7.1) complete
9. Facility Diagram (Section 1.9) complete

1.2 Facility Information

The facility information form is designed to provide an overview of the site and a description of past activities at the facility. Much of the information required by this section may be obtained from the facility's existing SPCC Plan.

1.2.1 *Facility name and location:* Enter facility name and street address. Enter the address of corporate headquarters only if corporate headquarters are physically located at the facility. Include city, county, state, zip code, and phone number.

1.2.2 *Latitude and Longitude:* Enter the latitude and longitude of the facility. Include degrees, minutes, and seconds of the main entrance of the facility.

1.2.3 *Wellhead Protection Area:* Indicate if the facility is located in or drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986 (SDWA).[1] The response plan requirements in the Wellhead Protection Program are outlined by the State or Territory in which the facility resides.

1.2.4 *Owner/operator:* Write the name of the company or person operating the facility and the name of the person or company that owns the facility, if the two are different. List the address of the owner, if the two are different.

1.2.5 *Qualified Individual:* Write the name of the qualified individual for the entire facility. If more than one person is listed, each individual indicated in this section shall have full authority to implement the facility response plan. For each individual, list: name, position, home and work addresses (street addresses, not P.O. boxes), emergency phone number, and specific response training experience.

1.2.6 *Date of Oil Storage Start-up:* Enter the year which the present facility first started storing oil.

1.2.7 *Current Operation:* Briefly describe the facility's operations and include the North American Industrial Classification System (NAICS) code.

1.2.8 *Dates and Type of Substantial Expansion:* Include information on expansions that have occurred at the facility. Examples of such expansions include, but are not limited to: Throughput expansion, addition of a product line, change of a product line, and installation of additional oil storage capacity. The data provided shall include all facility historical information and detail the expansion of the facility. An example of substantial expansion is any material alteration of the facility which causes the owner or operator of the facility to re-evaluate and increase the response equipment necessary to adequately respond to a worst case discharge from the facility.

Date of Last Update: _____

FACILITY INFORMATION FORM

Facility Name: _____
Location (Street Address): _____
City: _____ State: _____ Zip: _____
County: _____ Phone Number: ( ) _____
Latitude: _____ Degrees _____ Minutes _____ Seconds
Longitude: _____ Degrees _____ Minutes _____ Seconds
Wellhead Protection Area: _____
Owner: _____
Owner Location (Street Address): _____
(if different from Facility Address)
City: _____ State: _____ Zip: _____
County: _____ Phone Number: ( ) _____
Operator (if not Owner): _____
Qualified Individual(s): (attach additional sheets if more than one)
Name: _____
Position: _____
Work Address: _____
Home Address: _____
Emergency Phone Number: ( ) _____

[1] A wellhead protection area is defined as the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. For further information regarding State and territory protection programs, facility owners or operators may contact the SDWA Hotline at 1–800–426–4791.

Date of Oil Storage Start-up: _____
Current Operations: _____

_____

_____

Date(s) and Type(s) of Substantial Expansion(s): _____

_____

(Attach additional sheets if necessary)

1.3 Emergency Response Information

(A) The information provided in this section shall describe what will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. The Emergency Response Information section of the plan must include the following components:

(1) The information provided in the Emergency Notification Phone List in section 1.3.1 identifies and prioritizes the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. This section shall include all the appropriate phone numbers for the facility. These numbers must be verified each time the plan is updated. The contact list must be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties.

(2) The Spill Response Notification Form in section 1.3.1 creates a checklist of information that shall be provided to the National Response Center (NRC) and other response personnel. All information on this checklist must be known at the time of notification, or be in the process of being collected. This notification form is based on a similar form used by the NRC. Note: Do not delay spill notification to collect the information on the list.

(3) Section 1.3.2 provides a description of the facility's list of emergency response equipment and location of the response equipment. When appropriate, the amount of oil that emergency response equipment can handle and any limitations (e.g., launching sites) must be described.

(4) Section 1.3.3 provides information regarding response equipment tests and deployment drills. Response equipment deployment exercises shall be conducted to ensure that response equipment is operational and the personnel who would operate the equipment in a spill response are capable of deploying and operating it. Only a representative sample of each type of response equipment needs to be deployed and operated, as long as the remainder is properly maintained. If appropriate, testing of response equipment may be conducted while it is being deployed. Facilities without facility-owned response equipment must ensure that the oil spill removal organization that is identified in the response plan to provide this response equipment certifies that the deployment exercises have been met. Refer to the National Preparedness for Response Exercise Program (PREP) Guidelines (see Appendix E to this part, section 13, for availability), which satisfy Oil Pollution Act (OPA) response exercise requirements.

(5) Section 1.3.4 lists the facility response personnel, including those employed by the facility and those under contract to the facility for response activities, the amount of time needed for personnel to respond, their responsibility in the case of an emergency, and their level of response training. Three different forms are included in this section. The Emergency Response Personnel List shall be composed of all personnel employed by the facility whose duties involve responding to emergencies, including oil discharges, even when they are not physically present at the site. An example of this type of person would be the Building Engineer-in-Charge or Plant Fire Chief. The second form is a list of the Emergency Response Contractors (both primary and secondary) retained by the facility. Any changes in contractor status must be reflected in updates to the response plan. Evidence of contracts with response contractors shall be included in this section so that the availability of resources can be verified. The last form is the Facility Response Team List, which shall be composed of both emergency response personnel (referenced by job title/position) and emergency response contractors, included in one of the two lists described above, that will respond immediately upon discovery of an oil discharge or other emergency (i.e., the first people to respond). These are to be persons normally on the facility premises or primary response contractors. Examples of these personnel would be the Facility Hazardous Materials (HAZMAT) Spill Team 1, Facility Fire Engine Company 1, Production Supervisor, or Transfer Supervisor. Company personnel must be able to respond immediately and adequately if contractor support is not available.

(6) Section 1.3.5 lists factors that must, as appropriate, be considered when preparing an evacuation plan.

(7) Section 1.3.6 references the responsibilities of the qualified individual for the facility in the event of an emergency.

(B) The information provided in the emergency response section will aid in the assessment of the facility's ability to respond to a worst case discharge and will identify additional assistance that may be needed. In addition, the facility owner or operator may want to produce a wallet-size card containing a checklist of the immediate response and notification steps to be taken in the event of an oil discharge.

1.3.1 Notification

Date of Last Update: _____

EMERGENCY NOTIFICATION PHONE LIST WHOM TO NOTIFY

Reporter's Name: _____
Date: _____
Facility Name: _____
Owner Name: _____
Facility Identification Number: _____
Date and Time of Each NRC Notification: _____

Organization	Phone No.
1. National Response Center (NRC):	1–800–424–8802
2. Qualified Individual:	
Evening Phone:	
3. Company Response Team:	
Evening Phone:	
4. Federal On-Scene Coordinator (OSC) and/or Regional Response Center (RRC):	
Evening Phone(s):	
Pager Number(s):	
5. Local Response Team (Fire Dept./Co-operatives):	
6. Fire Marshall:	
Evening Phone:	
7. State Emergency Response Commission (SERC):	
Evening Phone:	
8. State Police:	
9. Local Emergency Planning Committee (LEPC):	
10. Local Water Supply System:	
Evening Phone:	
11. Weather Report:	
12. Local Television/Radio Station for Evacuation Notification:	
13. Hospitals:	

SPILL RESPONSE NOTIFICATION FORM

Reporter's Last Name: _____
First: _____
M.I.: _____
Position: _____
Phone Numbers:
Day ( ) –
Evening ( ) –
Company: _____
Organization Type: _____
Address: _____
_____
City: _____
State: _____
Zip: _____
Were Materials Discharged? _____ (Y/N) Confidential? _____ (Y/N)
Meeting Federal Obligations to Report? _____ (Y/N) Date Called: _____
Calling for Responsible Party? _____ (Y/N) Time Called: _____

Incident Description

Source and/or Cause of Incident: _____
_____
_____
_____
_____
Date of Incident: _____
Time of Incident: _____ AM/PM
Incident Address/Location: _____
_____
Nearest City: _____ State: _____
County: _____ Zip: _____
Distance from City: _____ Units of Measure: _____ Direction from City: _____
Section: _____ Township: _____ Range: _____ Borough: _____
Container Type: _____ Tank Oil Storage Capacity: _____ Units of Measure: _____
Facility Oil Storage Capacity: _____ Units of Measure: _____
Facility Latitude: _____ Degrees _____ Minutes _____ Seconds
Facility Longitude: _____ Degrees _____ Minutes _____ Seconds

Material

CHRIS Code	Discharged quantity	Unit of measure	Material Discharged in water	Quantity	Unit of measure

CHRIS Code	Discharged quantity	Unit of measure	Material Discharged in water	Quantity	Unit of measure

Response Action

Actions Taken to Correct, Control or Mitigate Incident:

_____

_____

_____

_____

Impact

Number of Injuries: _____ Number of Deaths: _____

Were there Evacuations? _____ (Y/N) Number Evacuated: _____

Was there any Damage? _____ (Y/N)

Damage in Dollars (approximate): _____

Medium Affected: _____

Description: _____

More Information about Medium: _____

_____

_____

Additional Information

Any information about the incident not recorded elsewhere in the report:

_____

_____

_____

Caller Notifications

EPA? _____ (Y/N) USCG? _____ (Y/N) State? _____ (Y/N)

Other? _____ (Y/N) Describe: _____

1.3.2 Response Equipment List

Date of Last Update:_____

FACILITY RESPONSE EQUIPMENT LIST

1. Skimmers/Pumps—Operational Status: _____

Type, Model, and Year: _____

_____

Type Model Year

Number: _____

Capacity: _____ gal./min.

Daily Effective Recovery Rate: _____

Storage Location(s): _____

Date Fuel Last Changed: _____

2. Boom—Operational Status: _____

Type, Model, and Year: _____

Type Model Year

Number: _____

Size (length): _____ ft.

Containment Area: _____ sq. ft.

Storage Location: _____

3. Chemicals Stored (Dispersants listed on EPA's NCP Product Schedule)

Type	Amount	Date purchased	Treatment capacity	Storage location

Were appropriate procedures used to receive approval for use of dispersants in accordance with the NCP (40 CFR 300.910) and the Area Contingency Plan (ACP), where applicable?_____ (Y/N).

Name and State of On-Scene Coordinator (OSC) authorizing use: _____ .

Date Authorized: _____ .

4. Dispersant Dispensing Equipment—Operational Status: _____ .

Type and year	Capacity	Storage location	Response time (minutes)

5. Sorbents—Operational Status: _____
Type and Year Purchased: _____
Amount: _____
Absorption Capacity (gal.): _____
Storage Location(s): _____
6. Hand Tools—Operational Status: _____

Type and year	Quantity	Storage location

7. Communication Equipment (include operating frequency and channel and/or cellular phone numbers)—Operational Status: _____

Type and year	Quantity	Storage location/ number

8. Fire Fighting and Personnel Protective Equipment—Operational Status: _____

Type and year	Quantity	Storage location

Type and year	Quantity	Storage location

9. Other (e.g., Heavy Equipment, Boats and Motors)—Operational Status: _____

Type and year	Quantity	Storage location

1.3.3 Response Equipment Testing/Deployment

Date of Last Update:_____

Response Equipment Testing and Deployment Drill Log

Last Inspection or Response Equipment Test Date: _____
Inspection Frequency: _____
Last Deployment Drill Date: _____
Deployment Frequency: _____
Oil Spill Removal Organization Certification (if applicable): _____

1.3.4 Personnel

Date of Last Update:_____

EMERGENCY RESPONSE PERSONNEL

Company Personnel

Name	Phone [1]	Response time	Responsibility during response action	Response training type/date
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

[1] Phone number to be used when person is not on-site.

EMERGENCY RESPONSE CONTRACTORS

Date of Last Update: _____

Contractor	Phone	Response time	Contract responsibility [1]
1.			
2.			
3.			
4.			

[1] Include evidence of contracts/agreements with response contractors to ensure the availability of personnel and response equipment.

FACILITY RESPONSE TEAM

Date of Last Update:_____

Team member	Response time (minutes)	Phone or pager number (day/evening)
Qualified Individual:		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/

NOTE: If the facility uses contracted help in an emergency response situation, the owner or operator must provide the contractors' names and review the contractors' capacities to provide adequate personnel and response equipment.

1.3.5 Evacuation Plans

1.3.5.1 Based on the analysis of the facility, as discussed elsewhere in the plan, a facility-wide evacuation plan shall be developed. In addition, plans to evacuate parts of the facility that are at a high risk of exposure in the event of a discharge or other release must be developed. Evacuation routes must be shown on a diagram of the facility (see section 1.9 of this appendix). When developing evacuation plans, consideration must be given to the following factors, as appropriate:

(1) Location of stored materials;
(2) Hazard imposed by discharged material;
(3) Discharge flow direction;
(4) Prevailing wind direction and speed;
(5) Water currents, tides, or wave conditions (if applicable);
(6) Arrival route of emergency response personnel and response equipment;
(7) Evacuation routes;
(8) Alternative routes of evacuation;
(9) Transportation of injured personnel to nearest emergency medical facility;
(10) Location of alarm/notification systems;
(11) The need for a centralized check-in area for evacuation validation (roll call);
(12) Selection of a mitigation command center; and
(13) Location of shelter at the facility as an alternative to evacuation.

1.3.5.2 One resource that may be helpful to owners or operators in preparing this section of the response plan is The *Handbook of Chemical Hazard Analysis Procedures* by the Federal Emergency Management Agency (FEMA), Department of Transportation (DOT), and EPA. *The Handbook of Chemical Hazard Analysis Procedures* is available from: FEMA , Publication Office, 500 C. Street, S.W., Washington, DC 20472, (202) 646–3484.

1.3.5.3 As specified in §112.20(h)(1)(vi), the facility owner or operator must reference existing community evacuation plans, as appropriate.

1.3.6 Qualified Individual's Duties

The duties of the designated qualified individual are specified in §112.20(h)(3)(ix). The qualified individual's duties must be described and be consistent with the minimum requirements in §112.20(h)(3)(ix). In addition, the qualified individual must be identified with the Facility Information in section 1.2 of the response plan.

1.4 Hazard Evaluation

This section requires the facility owner or operator to examine the facility's operations closely and to predict where discharges could occur. Hazard evaluation is a widely used industry practice that allows facility owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. *The Handbook of Chemical Hazard Analysis Procedures,* prepared by the EPA, DOT, and the FEMA and the *Hazardous Materials Emergency Planning Guide* (NRT–1), prepared by the National Response Team are good references for conducting a hazard analysis. Hazard identification and evaluation will assist facility owners or operators in planning for potential discharges, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also may help the operator identify and correct potential sources of discharges. In addition, special hazards to workers and emergency response personnel's health and safety shall be evaluated, as well as the facility's oil spill history.

1.4.1 Hazard Identification

The Tank and Surface Impoundment (SI) forms, or their equivalent, that are part of this section must be completed according to the directions below. (''Surface Impoundment'' means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well or a seepage facility.) Similar worksheets, or their equivalent, must be developed for any other type of storage containers.

(1) List each tank at the facility with a separate and distinct identifier. Begin aboveground tank identifiers with an ''A'' and belowground tank identifiers with a ''B'', or submit multiple sheets with the aboveground tanks and belowground tanks on separate sheets.

(2) Use gallons for the maximum capacity of a tank; and use square feet for the area.

(3) Using the appropriate identifiers and the following instructions, fill in the appropriate forms:

(a) Tank or SI number—Using the aforementioned identifiers (A or B) or multiple reporting sheets, identify each tank or SI at the facility that stores oil or hazardous materials.

(b) Substance Stored—For each tank or SI identified, record the material that is stored therein. If the tank or SI is used to store more than one material, list all of the stored materials.

(c) Quantity Stored—For each material stored in each tank or SI, report the average volume of material stored on any given day.

(d) Tank Type or Surface Area/Year—For each tank, report the type of tank (e.g., floating top), and the year the tank was originally installed. If the tank has been refabricated, the year that the latest refabrication was completed must be recorded in parentheses next to the year installed. For

each SI, record the surface area of the impoundment and the year it went into service.

(e) Maximum Capacity—Record the operational maximum capacity for each tank and SI. If the maximum capacity varies with the season, record the upper and lower limits.

(f) Failure/Cause—Record the cause and date of any tank or SI failure which has resulted in a loss of tank or SI contents.

(4) Using the numbers from the tank and SI forms, label a schematic drawing of the facility. This drawing shall be identical to any schematic drawings included in the SPCC Plan.

(5) Using knowledge of the facility and its operations, describe the following in writing:

(a) The loading and unloading of transportation vehicles that risk the discharge of oil or release of hazardous substances during transport processes. These operations may include loading and unloading of trucks, railroad cars, or vessels. Estimate the volume of material involved in transfer operations, if the exact volume cannot be determined.

(b) Day-to-day operations that may present a risk of discharging oil or releasing a hazardous substance. These activities include scheduled venting, piping repair or replacement, valve maintenance, transfer of tank contents from one tank to another, etc. (not including transportation-related activities). Estimate the volume of material involved in these operations, if the exact volume cannot be determined.

(c) The secondary containment volume associated with each tank and/or transfer point at the facility. The numbering scheme developed on the tables, or an equivalent system, must be used to identify each containment area. Capacities must be listed for each individual unit (tanks, slumps, drainage traps, and ponds), as well as the facility total.

(d) Normal daily throughput for the facility and any effect on potential discharge volumes that a negative or positive change in that throughput may cause.

HAZARD IDENTIFICATION TANKS [1]

Date of Last Update: _____

Tank No.	Substance Stored (Oil and Hazardous Substance)	Quantity Stored (gallons)	Tank Type/Year	Maximum Capacity (gallons)	Failure/Cause

[1] Tank = any container that stores oil.
Attach as many sheets as necessary.

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SIS)

Date of Last Update: _____

SI No.	Substance Stored	Quantity Stored (gallons)	Surface Area/Year	Maximum Capacity (gallons)	Failure/Cause

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SIS)—Continued

Date of Last Update: _____

SI No.	Substance Stored	Quantity Stored (gallons)	Surface Area/Year	Maximum Capacity (gallons)	Failure/Cause

Attach as many sheets as necessary.

1.4.2 Vulnerability Analysis

The vulnerability analysis shall address the potential effects (i.e., to human health, property, or the environment) of an oil discharge. Attachment C–III to Appendix C to this part provides a method that owners or operators shall use to determine appropriate distances from the facility to fish and wildlife and sensitive environments. Owners or operators can use a comparable formula that is considered acceptable by the RA. If a comparable formula is used, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet. This analysis must be prepared for each facility and, as appropriate, must discuss the vulnerability of:

(1) Water intakes (drinking, cooling, or other);
(2) Schools;
(3) Medical facilities;
(4) Residential areas;
(5) Businesses;
(6) Wetlands or other sensitive environments;[2]
(7) Fish and wildlife;
(8) Lakes and streams;
(9) Endangered flora and fauna;
(10) Recreational areas;
(11) Transportation routes (air, land, and water);
(12) Utilities; and
(13) Other areas of economic importance (e.g., beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats.

1.4.3 Analysis of the Potential for an Oil Discharge

Each owner or operator shall analyze the probability of a discharge occurring at the facility. This analysis shall incorporate factors such as oil discharge history, horizontal range of a potential discharge, and vulnerability to natural disaster, and shall, as appropriate, incorporate other factors such as tank age. This analysis will provide information for developing discharge scenarios for a worst case discharge and small and medium discharges and aid in the development of techniques to reduce the size and frequency of discharges. The owner or operator may need to research the age of the tanks the oil discharge history at the facility.

1.4.4 Facility Reportable Oil Spill History

Briefly describe the facility's reportable oil spill[3] history for the entire life of the facility to the extent that such information is reasonably identifiable, including:

(1) Date of discharge(s);
(2) List of discharge causes;
(3) Material(s) discharged;
(4) Amount discharged in gallons;
(5) Amount of discharge that reached navigable waters, if applicable;
(6) Effectiveness and capacity of secondary containment;
(7) Clean-up actions taken;
(8) Steps taken to reduce possibility of recurrence;
(9) Total oil storage capacity of the tank(s) or impoundment(s) from which the material discharged;
(10) Enforcement actions;
(11) Effectiveness of monitoring equipment; and
(12) Description(s) of how each oil discharge was detected.

[2] Refer to the DOC/NOAA ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (See appendix E to this part, section 13, for availability).

[3] As described in 40 CFR part 110, reportable oil spills are those that: (a) violate applicable water quality standards, or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

The information solicited in this section may be similar to requirements in 40 CFR 112.4(a). Any duplicate information required by §112.4(a) may be photocopied and inserted.

1.5 Discharge Scenarios

In this section, the owner or operator is required to provide a description of the facility's worst case discharge, as well as a small and medium discharge, as appropriate. A multi-level planning approach has been chosen because the response actions to a discharge (*i.e.*, necessary response equipment, products, and personnel) are dependent on the magnitude of the discharge. Planning for lesser discharges is necessary because the nature of the response may be qualitatively different depending on the quantity of the discharge. The facility owner or operator shall discuss the potential direction of the discharge pathway.

1.5.1 Small and Medium Discharges

1.5.1.1 To address multi-level planning requirements, the owner or operator must consider types of facility-specific discharge scenarios that may contribute to a small or medium discharge. The scenarios shall account for all the operations that take place at the facility, including but not limited to:

(1) Loading and unloading of surface transportation;
(2) Facility maintenance;
(3) Facility piping;
(4) Pumping stations and sumps;
(5) Oil storage tanks;
(6) Vehicle refueling; and
(7) Age and condition of facility and components.

1.5.1.2 The scenarios shall also consider factors that affect the response efforts required by the facility. These include but are not limited to:

(1) Size of the discharge;
(2) Proximity to downgradient wells, waterways, and drinking water intakes;
(3) Proximity to fish and wildlife and sensitive environments;
(4) Likelihood that the discharge will travel offsite (*i.e.*, topography, drainage);
(5) Location of the material discharged (*i.e.*, on a concrete pad or directly on the soil);
(6) Material discharged;
(7) Weather or aquatic conditions (*i.e.*, river flow);
(8) Available remediation equipment;
(9) Probability of a chain reaction of failures; and
(10) Direction of discharge pathway.

1.5.2 Worst Case Discharge

1.5.2.1 In this section, the owner or operator must identify the worst case discharge volume at the facility. Worksheets for production and non-production facility owners or operators to use when calculating worst case discharge are presented in Appendix D to this part. When planning for the worst case discharge response, all of the aforementioned factors listed in the small and medium discharge section of the response plan shall be addressed.

1.5.2.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In this section of the response plan, owners or operators must provide evidence that oil storage tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume shall be based on the combined oil storage capacity of all manifold tanks or the oil storage capacity of the largest single oil storage tank within the secondary containment area, whichever is greater. For permanently manifolded oil storage tanks that function as one storage unit, the worst case discharge shall be based on the combined oil storage capacity of all manifolded tanks or the oil storage capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of the worst case discharge calculation, permanently manifolded oil storage tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.6 Discharge Detection Systems

In this section, the facility owner or operator shall provide a detailed description of the procedures and equipment used to detect discharges. A section on discharge detection by personnel and a discussion of automated discharge detection, if applicable, shall be included for both regular operations and after hours operations. In addition, the facility owner or operator shall discuss how the reliability of any automated system will be checked and how frequently the system will be inspected.

1.6.1 Discharge Detection by Personnel

In this section, facility owners or operators shall describe the procedures and personnel that will detect any discharge of oil or release of a hazardous substance. A thorough discussion of facility inspections must be included. In addition, a description of initial response actions shall be addressed. This section shall reference section 1.3.1 of the response plan for emergency response information.

1.6.2 Automated Discharge Detection

In this section, facility owners or operators must describe any automated discharge detection equipment that the facility has in place. This section shall include a discussion of overfill alarms, secondary containment sensors, etc. A discussion of the plans to verify an automated alarm and the actions to be taken once verified must also be included.

1.7 Plan Implementation

In this section, facility owners or operators must explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in section 1.5 of the response plan. This section shall include the identification of response resources for small, medium, and worst case discharges; disposal plans; and containment and drainage planning. A list of those personnel who would be involved in the cleanup shall be identified. Procedures that the facility will use, where appropriate or necessary, to update their plan after an oil discharge event and the time frame to update the plan must be described.

1.7.1 Response Resources for Small, Medium, and Worst Case Discharges

1.7.1.1 Once the discharge scenarios have been identified in section 1.5 of the response plan, the facility owner or operator shall identify and describe implementation of the response actions. The facility owner or operator shall demonstrate accessibility to the proper response personnel and equipment to effectively respond to all of the identified discharge scenarios. The determination and demonstration of adequate response capability are presented in Appendix E to this part. In addition, steps to expedite the cleanup of oil discharges must be discussed. At a minimum, the following items must be addressed:

(1) Emergency plans for spill response;

(2) Additional response training;

(3) Additional contracted help;

(4) Access to additional response equipment/experts; and

(5) Ability to implement the plan including response training and practice drills.

1.7.1.2A recommended form detailing immediate actions follows.

OIL SPILL RESPONSE—IMMEDIATE ACTIONS

1. Stop the product flow	Act quickly to secure pumps, close valves, etc.
2. Warn personnel	Enforce safety and security measures.
3. Shut off ignition sources.	Motors, electrical circuits, open flames, etc.
4. Initiate containment	Around the tank and/or in the water with oil boom.
5. Notify NRC	1–800–424–8802
6. Notify OSC	
7. Notify, as appropriate	

Source: FOSS, Oil Spill Response—Emergency Procedures, Revised December 3, 1992.

1.7.2 Disposal Plans

1.7.2.1 Facility owners or operators must describe how and where the facility intends to recover, reuse, decontaminate, or dispose of materials after a discharge has taken place. The appropriate permits required to transport or dispose of recovered materials according to local, State, and Federal requirements must be addressed. Materials that must be accounted for in the disposal plan, as appropriate, include:

(1) Recovered product;

(2) Contaminated soil;

(3) Contaminated equipment and materials, including drums, tank parts, valves, and shovels;

(4) Personnel protective equipment;

(5) Decontamination solutions;

(6) Adsorbents; and

(7) Spent chemicals.

1.7.2.2 These plans must be prepared in accordance with Federal (e.g., the Resource Conservation and Recovery Act [RCRA]), State, and local regulations, where applicable. A copy of the disposal plans from the facility's SPCC Plan may be inserted with this section, including any diagrams in those plans.

Material	Disposal facility	Location	RCRA permit/manifest
1.			
2.			
3.			
4.			

1.7.3 Containment and Drainage Planning

A proper plan to contain and control a discharge through drainage may limit the threat of harm to human health and the environment. This section shall describe how to contain and control a discharge through drainage, including:

(1) The available volume of containment (use the information presented in section 1.4.1 of the response plan);
(2) The route of drainage from oil storage and transfer areas;
(3) The construction materials used in drainage troughs;
(4) The type and number of valves and separators used in the drainage system;
(5) Sump pump capacities;
(6) The containment capacity of weirs and booms that might be used and their location (see section 1.3.2 of this appendix); and
(7) Other cleanup materials.

In addition, a facility owner or operator must meet the inspection and monitoring requirements for drainage contained in 40 CFR part 112, subparts A through C. A copy of the containment and drainage plans that are required in 40 CFR part 112, subparts A through C may be inserted in this section, including any diagrams in those plans.

NOTE: The general permit for stormwater drainage may contain additional requirements.

1.8 Self-Inspection, Drills/Exercises, and Response Training

The owner or operator must develop programs for facility response training and for drills/exercises according to the requirements of 40 CFR 112.21. Logs must be kept for facility drills/exercises, personnel response training, and spill prevention meetings. Much of the recordkeeping information required by this section is also contained in the SPCC Plan required by 40 CFR 112.3. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.1 Facility Self-Inspection

Under 40 CFR 112.7(e), you must include the written procedures and records of inspections for each facility in the SPCC Plan. You must include the inspection records for each container, secondary containment, and item of response equipment at the facility. You must cross-reference the records of inspections of each container and secondary containment required by 40 CFR 112.7(e) in the facility response plan. The inspection record of response equipment is a new requirement in this plan. Facility self-inspection requires two-steps: (1) a checklist of things to inspect; and (2) a method of recording the actual inspection and its findings. You must note the date of each inspection. You must keep facility response plan records for five years. You must keep SPCC records for three years.

1.8.1.1. Tank Inspection

The tank inspection checklist presented below has been included as guidance during inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Duplicate information from the SPCC Plan may be photocopied and inserted in this section. The inspection checklist consists of the following items:

TANK INSPECTION CHECKLIST

1. Check tanks for leaks, specifically looking for:
   A. drip marks;
   B. discoloration of tanks;
   C. puddles containing spilled or leaked material;
   D. corrosion;
   E. cracks; and
   F. localized dead vegetation.
2. Check foundation for:
   A. cracks;
   B. discoloration;
   C. puddles containing spilled or leaked material;
   D. settling;
   E. gaps between tank and foundation; and
   F. damage caused by vegetation roots.
3. Check piping for:
   A. droplets of stored material;
   B. discoloration;
   C. corrosion;
   D. bowing of pipe between supports;
   E. evidence of stored material seepage from valves or seals; and
   F. localized dead vegetation.

TANK/SURFACE IMPOUNDMENT INSPECTION LOG

Inspector	Tank or SI#	Date	Comments

TANK/SURFACE IMPOUNDMENT INSPECTION LOG—Continued

Inspector	Tank or SI#	Date	Comments

1.8.1.2 Response Equipment Inspection

Using the Emergency Response Equipment List provided in section 1.3.2 of the response plan, describe each type of response equipment, checking for the following:

Response Equipment Checklist

1. Inventory (item and quantity);
2. Storage location;
3. Accessibility (time to access and respond);
4. Operational status/condition;
5. Actual use/testing (last test date and frequency of testing); and
6. Shelf life (present age, expected replacement date).

Please note any discrepancies between this list and the available response equipment.

RESPONSE EQUIPMENT INSPECTION LOG

[Use section 1.3.2 of the response plan as a checklist]

Inspector	Date	Comments

RESPONSE EQUIPMENT INSPECTION LOG—Continued

[Use section 1.3.2 of the response plan as a checklist]

Inspector	Date	Comments

1.8.1.3 Secondary Containment Inspection

Inspect the secondary containment (as described in sections 1.4.1 and 1.7.2 of the response plan), checking the following:

Secondary Containment Checklist

1. Dike or berm system.
   A. Level of precipitation in dike/available capacity;
   B. Operational status of drainage valves;
   C. Dike or berm permeability;
   D. Debris;
   E. Erosion;
   F. Permeability of the earthen floor of diked area; and
   G. Location/status of pipes, inlets, drainage beneath tanks, etc.
2. Secondary containment
   A. Cracks;
   B. Discoloration;
   C. Presence of spilled or leaked material (standing liquid);
   D. Corrosion; and
   E. Valve conditions.
3. Retention and drainage ponds
   A. Erosion;
   B. Available capacity;
   C. Presence of spilled or leaked material;
   D. Debris; and
   E. Stressed vegetation.

The tank inspection checklist presented below has been included as guidance during inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Similar requirements exist in 40 CFR 112.7(e). Duplicate information from the SPCC Plan may be photocopied and inserted in this section.

1.8.2 Facility Drills/Exercises

(A) CWA section 311(j)(5), as amended by OPA, requires the response plan to contain a description of facility drills/exercises. According to 40 CFR 112.21(c), the facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. Following the PREP guidelines (see Appendix E to this part, section 13, for availability) would satisfy a facility's requirements for drills/exercises under this part. Alternately, under §112.21(c), a facility owner or operator may develop a program that is not based on the PREP guidelines. Such a program is subject to approval by the Regional Administrator based on the description of the program provided in the response plan.

(B) The PREP Guidelines specify that the facility conduct internal and external drills/exercises. The internal exercises include: qualified individual notification drills, spill management team tabletop exercises, equipment deployment exercises, and unannounced exercises. External exercises include Area Exercises. Credit for an Area or Facility-specific Exercise will be given to the facility for an actual response to a discharge in the area if the plan was utilized for response to the discharge and the objectives of the Exercise were met and were properly evaluated, documented, and self-certified.

(C) Section 112.20(h)(8)(ii) requires the facility owner or operator to provide a description of the drill/exercise program to be carried out under the response plan. Qualified Individual Notification Drill and Spill Management Team Tabletop Drill logs shall be provided in sections 1.8.2.1 and 1.8.2.2, respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan. See section 1.3.3 of this appendix for Equipment Deployment Drill Logs.

1.8.2.1 Qualified Individual Notification Drill Logs

Qualified Individual Notification Drill Log

Date: _____
Company: _____
Qualified Individual(s): _____
Emergency Scenario: _____

_____

_____

Evaluation: _____

_____

_____

_____

Changes to be Implemented: _____

_____

_____

Time Table for Implementation: _____

_____

1.8.2.2 Spill Management Team Tabletop Exercise Logs

Spill Management Team Tabletop Exercise Log

Date: _____
Company: _____
Qualified Individual(s): _____
Emergency Scenario: _____

_____

_____

Evaluation: _____

_____

_____

_____

Changes to be Implemented: _____

_____

_____

Time Table for Implementation: _____

1.8.3 Response Training

Section 112.21(a) requires facility owners or operators to develop programs for facility response training. Facility owners or operators are required by §112.20(h)(8)(iii) to provide a description of the response training program to be carried out under the response plan. A facility's training program can be based on the USCG's Training Elements for Oil Spill Response, to the extent applicable to facility operations, or another response training program acceptable to the RA. The training elements are available from the USCG Office of Response (G-MOR) at (202) 267–0518 or fax (202) 267–4085. Personnel response training logs and discharge prevention meeting logs shall be included in sections 1.8.3.1 and 1.8.3.2 of the response plan respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.3.1 Personnel Response Training Logs

PERSONNEL RESPONSE TRAINING LOG

Name	Response training/date and number of hours	Prevention training/date and number of hours

1.8.3.2 Discharge Prevention Meetings Logs

DISCHARGE PREVENTION MEETING LOG

Date: _____
Attendees: _____

_____

_____

_____

_____

_____

_____

Subject/issue identified	Required action	Implementation date

1.9 Diagrams

The facility-specific response plan shall include the following diagrams. Additional diagrams that would aid in the development of response plan sections may also be included.

(1) The Site Plan Diagram shall, as appropriate, include and identify:
(A) the entire facility to scale;
(B) above and below ground bulk oil storage tanks;
(C) the contents and capacities of bulk oil storage tanks;
(D) the contents and capacity of drum oil storage areas;
(E) the contents and capacities of surface impoundments;
(F) process buildings;
(G) transfer areas;
(H) secondary containment systems (location and capacity);
(I) structures where hazardous materials are stored or handled, including materials stored and capacity of storage;
(J) location of communication and emergency response equipment;
(K) location of electrical equipment which contains oil; and
(L) for complexes only, the interface(s) (i.e., valve or component) between the portion of the facility regulated by EPA and the portion(s) regulated by other Agencies. In most cases, this interface is defined as the last valve inside secondary containment before piping leaves the secondary containment area to connect to the transportation-related portion of the facility (i.e., the structure used or intended to be used to transfer oil to or from a vessel or pipeline). In the absence of secondary containment, this interface is the valve manifold adjacent to the tank nearest the transfer structure as described above. The interface may be defined differently at a specific facility if agreed to by the RA and the appropriate Federal official.

(2) The Site Drainage Plan Diagram shall, as appropriate, include:
(A) major sanitary and storm sewers, manholes, and drains;
(B) weirs and shut-off valves;
(C) surface water receiving streams;
(D) fire fighting water sources;
(E) other utilities;
(F) response personnel ingress and egress;
(G) response equipment transportation routes; and
(H) direction of discharge flow from discharge points.

(3) The Site Evacuation Plan Diagram shall, as appropriate, include:
(A) site plan diagram with evacuation route(s); and
(B) location of evacuation regrouping areas.

1.10 Security

According to 40 CFR 112.7(g) facilities are required to maintain a certain level of security, as appropriate. In this section, a description of the facility security shall be provided and include, as appropriate:

(1) emergency cut-off locations (automatic or manual valves);
(2) enclosures (e.g., fencing, etc.);
(3) guards and their duties, day and night;
(4) lighting;
(5) valve and pump locks; and
(6) pipeline connection caps.

The SPCC Plan contains similar information. Duplicate information may be photocopied and inserted in this section.

2.0 Response Plan Cover Sheet

A three-page form has been developed to be completed and submitted to the RA by owners or operators who are required to prepare and submit a facility-specific response plan. The cover sheet (Attachment F–1) must accompany the response plan to provide the Agency with basic information concerning the facility. This section will describe the Response Plan Cover Sheet and provide instructions for its completion.

2.1 General Information

Owner/Operator of Facility: Enter the name of the owner of the facility (if the owner is the operator). Enter the operator of the facility if otherwise. If the owner/operator of

the facility is a corporation, enter the name of the facility's principal corporate executive. Enter as much of the name as will fit in each section.

(1) *Facility Name:* Enter the proper name of the facility.

(2) *Facility Address:* Enter the street address, city, State, and zip code.

(3) *Facility Phone Number:* Enter the phone number of the facility.

(4) *Latitude and Longitude:* Enter the facility latitude and longitude in degrees, minutes, and seconds.

(5) *Dun and Bradstreet Number:* Enter the facility's Dun and Bradstreet number if available (this information may be obtained from public library resources).

(6) North American Industrial Classification System (NAICS) Code: Enter the facility's NAICS code as determined by the Office of Management and Budget (this information may be obtained from public library resources.)

(7) *Largest Oil Storage Tank Capacity:* Enter the capacity in GALLONS of the largest aboveground oil storage tank at the facility.

(8) *Maximum Oil Storage Capacity:* Enter the total maximum capacity in GALLONS of all aboveground oil storage tanks at the facility.

(9) *Number of Oil Storage Tanks:* Enter the number of all aboveground oil storage tanks at the facility.

(10) *Worst Case Discharge Amount:* Using information from the worksheets in Appendix D, enter the amount of the worst case discharge in GALLONS.

(11) *Facility Distance to Navigable Waters:* Mark the appropriate line for the nearest distance between an opportunity for discharge (i.e., oil storage tank, piping, or flowline) and a navigable water.

2.2 Applicability of Substantial Harm Criteria

Using the flowchart provided in Attachment C–I to Appendix C to this part, mark the appropriate answer to each question. Explanations of referenced terms can be found in Appendix C to this part. If a comparable formula to the ones described in Attachment C–III to Appendix C to this part is used to calculate the planning distance, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet.

2.3 Certification

Complete this block after all other questions have been answered.

3.0 Acronyms

ACP: Area Contingency Plan
ASTM: American Society of Testing Materials
bbls: Barrels
bpd: Barrels per Day
bph: Barrels per Hour
CHRIS: Chemical Hazards Response Information System
CWA: Clean Water Act
DOI: Department of Interior
DOC: Department of Commerce
DOT: Department of Transportation
EPA: Environmental Protection Agency
FEMA: Federal Emergency Management Agency
FR: Federal Register
gal: Gallons
gpm: Gallons per Minute
HAZMAT: Hazardous Materials
LEPC: Local Emergency Planning Committee
MMS: Minerals Management Service (part of DOI)
NAICS: North American Industrial Classification System
NCP: National Oil and Hazardous Substances Pollution Contingency Plan
NOAA: National Oceanic and Atmospheric Administration (part of DOC)
NRC: National Response Center
NRT: National Response Team
OPA: Oil Pollution Act of 1990
OSC: On-Scene Coordinator
PREP: National Preparedness for Response Exercise Program
RA: Regional Administrator
RCRA: Resource Conservation and Recovery Act
RRC: Regional Response Centers
RRT: Regional Response Team
RSPA: Research and Special Programs Administration
SARA: Superfund Amendments and Reauthorization Act
SERC: State Emergency Response Commission
SDWA: Safe Drinking Water Act of 1986
SI: Surface Impoundment
SPCC: Spill Prevention, Control, and Countermeasures
USCG: United States Coast Guard

4.0 References

CONCAWE. 1982. Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry. Prepared by CONCAWE's Risk Assessment Ad-hoc Group.

U.S. Department of Housing and Urban Development. 1987. Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.

U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.

U.S. DOT, FEMA and U.S. EPA. Technical Guidance for Hazards Analysis: Emergency

Planning for Extremely Hazardous Substances.

The National Response Team. 1987. Hazardous Materials Emergency Planning Guide. Washington, DC.

The National Response Team. 1990. Oil Spill Contingency Planning, National Status: A Report to the President. Washington, DC. U.S. Government Printing Office.

Offshore Inspection and Enforcement Division. 1988. Minerals Management Service, Offshore Inspection Program: National Potential Incident of Noncompliance (PINC) List. Reston, VA.

ATTACHMENTS TO APPENDIX F

Attachment F–1—Response Plan Cover Sheet

This cover sheet will provide EPA with basic information concerning the facility. It must accompany a submitted facility response plan. Explanations and detailed instructions can be found in Appendix F. Please type or write legibly in blue or black ink. Public reporting burden for the collection of this information is estimated to vary from 1 hour to 270 hours per response in the first year, with an average of 5 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing this burden to: Chief, Information Policy Branch, Mail Code: PM–2822, U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503.

GENERAL INFORMATION

Owner/Operator of Facility:

_____

Facility Name: _____

Facility Address (street address or route):

_____

_____

City, State, and U.S. Zip Code:

_____

Facility Phone No.: _____

Latitude (Degrees: North):

_____

degrees, minutes, seconds

Dun & Bradstreet Number: [1]

_____

Largest Aboveground Oil Storage Tank Capacity (Gallons):

_____

Number of Aboveground Oil Storage Tanks:

_____

Longitude (Degrees: West):

_____

degrees, minutes, seconds _____

North American Industrial Classification System (NAICS) Code: [1] _____

_____

Maximum Oil Storage Capacity (Gallons): __

Worst Case Oil Discharge Amount (Gallons):

Facility Distance to Navigable Water. Mark the appropriate line. _____

0– ¼ mile ____ ¼–½ mile ____ ½–1 mile ____ >1 mile ____

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water [2] to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment [2] that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance [2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? [3]

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million

[1] These numbers may be obtained from public library resources.

[2] Explanations of the above-referenced terms can be found in Appendix C to this part. If a comparable formula to the ones contained in Attachment C–III is used to establish the appropriate distance to fish and wildlife and sensitive environments or public drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

[3] For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable ACP.

gallons and is the facility located at a distance[2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?[2]

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill [2] in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____

No _____

CERTIFICATION

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

Signature: _____

Name (Please type or print): _____

_____

Title: _____

Date: _____

[59 FR 34122, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40816, June 30, 2000; 65 FR 43840, July 14, 2000; 66 FR 34561, June 29, 2001; 67 FR 47152, July 17, 2002]

PART 113—LIABILITY LIMITS FOR SMALL ONSHORE STORAGE FACILITIES

Subpart A—Oil Storage Facilities

Sec.

AUTHORITY: Sec. 311(f)(2), 86 Stat. 867 (33 U.S.C. 1251 (1972)).

SOURCE: 38 FR 25440, Sept. 13, 1973, unless otherwise noted.

Subpart A—Oil Storage Facilities

§ 113.1 Purpose.

This subpart establishes size classifications and associated liability limits for small onshore oil storage facilities with fixed capacity of 1,000 barrels or less.

§ 113.2 Applicability.

This subpart applies to all onshore oil storage facilities with fixed capacity of 1,000 barrels or less. When a discharge to the waters of the United States occurs from such facilities and when removal of said discharge is performed by the United States Government pursuant to the provisions of subsection 311(c)(1) of the Act, the liability of the owner or operator and the facility will be limited to the amounts specified in § 113.4.

§ 113.3 Definitions.

As used in this subpart, the following terms shall have the meanings indicated below:

(a) *Aboveground* storage facility means a tank or other container, the bottom of which is on a plane not more than 6 inches below the surrounding surface.

(b) *Act* means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1151, *et seq.*

(c) *Barrel* means 42 United States gallons at 60 degrees Fahrenheit.

(d) *Belowground* storage facility means a tank or other container located other than as defined as ''Aboveground''.

(e) *Discharge* includes, but is not limited to any spilling, leaking, pumping, pouring, emitting, emptying or dumping.

(f) *Onshore Oil Storage Facility* means any facility (excluding motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States, other than submerged land.

(g) *On-Scene Coordinator* is the single Federal representative designated pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan and identified in approved Regional Oil and Hazardous Substances Pollution Contingency Plans.

(h) *Oil* means oil of any kind or in any form, including but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Appendix B

Facility Spill Response Materials

Recommended Spill Response Materials for Petroleum Oils

The following are some recommended items for on-site oil spill response materials. Spill materials should be well marked and kept in readily accessible locations. Facility personnel should be familiar with the location and contents of the spill materials. Note: The number and contents of oil spill response materials will vary with the nature, size and location of the facility. Response materials should be tailored to the site-specific features of the facility.

Drum or other container to hold contents of spill materials

Drums or other containers to hold contaminated materials

Loose absorbent for oil

Sorbent pads/wipes/pillows/booms/socks
Nitrile gloves
Neoprene gloves for cold weather use
Vinyl/PVC Pull-On Over-boots
Shovels
Brooms
Dust pans
Sand bags for dams or underflow weirs
Temporary drain covers for catch basins in the area (e.g., rubber mat or like product)

Recommended Spill Response Materials for Non-Petroleum Oils

Drum or other container to hold contents of spill materials

Drums or other containers to hold contaminated materials

Loose absorbent for oil (baking soda, talcum powder, cornmeal, sawdust, cat litter)

Liquid Dawn dish detergent OR liquid laundry detergent
Nitrile gloves
Neoprene gloves for cold weather use
Vinyl/PVC Pull-On Over-boots
Shovels
Brooms
Dust pans
Sand bags for dams or underflow weirs
Temporary drain covers for catch basins in the area (e.g., rubber mat or like product)

Appendix C

Spill Notification Forms

Spill Notification Form

Product Name that was Spilled:	**Who is Reporting Spill:**
Parties or Party Who *Appeared* Responsible:	**Spill Date and Time:**
Approximate Quantity of the Spill:	**Approximate Size of the Area Affected by the Spill:**
Weather Conditions at the Time of Spill:	**Specific Spill Location:**
Proximity of Nearby Surface Water Bodies or Drains:	**Type of Surface the Spill Occurred on:** [ ] concrete [ ] asphalt [ ] grass [ ] soil [ ]other_____ _____
Nature of spill and any environmental or health effects: [ ]Injuries [ ] Fatalities	

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Send a copy of this form to the Environmental Manager (Jimmy Jordan). This form shall be retained for a period of three years.

Appendix D

CLT Airport's Contingency Plan

SPILL PREVENTION AND RESPONSE

Safe operating procedures and effective preventative maintenance programs help to prevent most spills. However, mistakes are made, and equipment and materials do fail. The following paragraphs list the planned solutions to those shortcomings. To allow a degree of generalization in this discussion each item discussed is referenced to the spill sources to which it applies. The source locations are listed in Table 2 through Table 20 - Potential Spills - Prediction and Control and are located on Figures 4 through Figure 21.

CLT Airport's Contingency Plan and Emergency Response

The Contingency Plan is a flexible approach to provide the manpower, equipment, and materials required to quickly control and remove any spilled oil. CLT Airport is committed to the implementation of the Contingency Plan.

This section describes the cleanup response and protocols to follow in the event of an oil spill. The uncontrolled discharge of oil to ground water, surface water or soil is prohibited by State or Federal laws. It is imperative that action be taken to respond to a spill once it has occurred.

Containment and Clean-Up

If a spill does occur, it will be contained to the property and cleaned up before it reaches surface waters. Effective and immediate action will be taken. A step-by-step Notification Procedure has been developed and is outlined below to guide personnel in determining what and when certain steps should be taken. CLT Airport has committed trained personnel, equipment, contractors and other resources necessary to prevent oil discharges into surface waters. Implementation of this plan provides an organized and well-planned response.

Notification Procedure

The Notification Procedure contains a list of individuals who would be involved in the event of a spill. It also outlines general instructions on what to do, who should do it, and when it should be done. A shortened form of the Notification Procedure is also included. A copy of the shortened form will be posted or readily available from the Environmental Manager (EM).

1. Spill Detection - (when a spill occurs or is discovered it is important to act quickly.)

    a. If closing a valve can stop a spill, shutting off a pump, or redirecting a pipe or hose, do it immediately.

    b. Notify Immediate Supervisor

2. Immediate Supervisor

    a. Make a visual inspection of the spill, confer with the Environmental Manager, and make an evaluation. Cordon-off the area if necessary.

b. Notify the Environmental Manager if the spill is greater than 10 gallons and provide a description and evaluation of the situation.

c. If the Environmental Manager is not available, contact the Airport Operations Supervisor or an Operations Officer.

d. If the spill is serious, the Environmental Manager will call the Fire Department.

e. Provide additional manpower if necessary.

f. If the spill reaches or is going to reach navigable waters, notify the Environmental Manager.

3. Environmental Manager/ Airport Operations Supervisor/Operations Officer

a. If the spill reaches or is expected to reach navigable waters in any quantity call the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA) **immediately** and the North Carolina Department of Environmental Quality (NCDEQ) **within 24 hours**.

NC Emergency Response Commission Oil Spills and Hazardous Discharges 7-day, 24-hour phone	(800) 858-0368
NCDEQ– Mooresville Regional Office	(704) 663-1699
USCG Oil Spills and Hazardous Discharges (Washington) 7-day, 24-hour phone Toll free	(800) 424-8802
EPA Region 4 Oil Spills and Hazardous discharges Atlanta, GA, 7-day, 24-hour phone	(404) 562-8700

The telephone report shall contain the following information:

1. The name, address, and the telephone number of the party in charge of or responsible for, the activity or facility and of the party at the site of the spill or accidental discharge who is in charge of operations at the site;

2. The exact location of the spill or discharge, including the name of the waters involved;

3. The type of material spilled or discharged;
4. An estimate of the quantity of material spilled or discharged;

5. The extent of actual and potential water pollution; and

6. The steps being taken or proposed to contain and clean-up the spilled or discharged material.

b. If the discharge to surface waters was more than 1,000 gallons in a single spill event or 42 gallons or greater in two spill events occurring within any twelve-month period, CLT Airport shall submit the required information to the Regional Administrator of the Environmental Protection Agency and to the NCDEQ for their review. The submittal must be made within **60 days** of the spill event. The list of required information as well as the review procedure is included in 40 CFR subsection 112.4 included in Appendix A.

Spill Response Team

Employees that participate in oil spill containment and clean-up operations are both informed and trained. A group of personnel on each shift has been trained in the latest spill control techniques, in the use of the oil spill equipment available on site, and in simulated oil spills which will provide valuable experience and training feedback information. The team will be under the direction of the Environmental Manager. This trained group will form the nucleus of the labor force required to contain and clean-up oil spills.

Waste Disposal

Wastes resulting from a minor spill response will be containerized in impervious bags, drums, buckets or other suitable containers. Arrangements for transportation and disposal of the waste will be made by the Environmental Manager. If necessary, this may include obtaining the services of a licensed waste hauler.

Wastes resulting from a major spill response will be removed and disposed by a cleanup contractor.

Spill Notification Forms

After making the appropriate phone calls and after the spill is contained, a *Spill Notification Form*, included in **Appendix C**, shall be completed and submitted to the Environmental Manager. The *Spill Notification Form* includes a checklist to document the proper notification of state and federal agencies. The form will be filed by facility name and maintained by CLT Airport.

The Notification Procedure on the following page will be posted in the vicinity of oil storage locations throughout the CLT Airport to provide a quick reference for reporting spills at the CLT Airport.

Outdoor Liquid Spills at CLT Airport

Notification and Communication Procedure

For fuel spills, and all other liquid spills – known or unknown

Areas covered: Airport Ramp, all non-movement and movement areas, and All Airport owned / tenant-leased properties.

Notify the Airport's Environmental Staff or Airport Operations for spills of:

Group A: Petroleum Products – these include oils and fuels of all kinds

- ✓ The spill is 10 gallons or greater;
- ✓ The spill is a petroleum product of any amount and has entered a subsurface conduit such as a grate, drain, or curb gutter;
- ✓ Rainfall is in progress of any size petroleum spill;

Group B: Non-Petroleum Products
(Including cooking oils, detergents, sewage, and other liquid products**)**

- ✓ The spill is 10 gallons or greater;
- ✓ The spill is an unknown or potentially hazardous product – call for any amount over 1 gallon OR if the spill cannot be immediately cleaned up;
- ✓ Un-dilute Liquid Deicer –Call for spills of 25 gallons or more;

Tenants or employees should notify either Airport Operations or an Airport Environmental Staff member if any of the above criteria apply to the situation. Reasonable measures should be taken by ANYONE who is available to stop or minimize a continuing spill.

Airport Operations 704-359-4012
CLT Environmental Manager 980-288-3793
Environmental Compliance Officer 704-793-7706

Reporting spills to the appropriate regulatory agencies will be handled by the Airport Environmental Manager. AIRLINE EMPLOYEES, RAMP WORKERS, TENANT OR FUELING PERSONNEL, OR EMERGENCY RESPONSE PERSONS SHOULD NOT REPORT SPILLS UNLESS THEY FIRST CONFER WITH THE CLT ENVIRONMENTAL MANAGER.

Appendix E

Employee Training Log

Employee Training Log

Note: New employees shall receive initial training in the contents and implementation of this CLT Airport's SPCC Plan upon start of their employment. All employees shall receive annual refresher training in the contents and implementation of this CLT Airport's SPCC Plan.

Date of Training	Topic Covered	Names of Employees Attending	Instructor(s)

Appendix F

Monthly Inspection Checklist
&
Inspection Records

MONTHLY INSPECTION CHECKLIST

This inspection record must be completed each month. If any response requires further elaboration, provide comments in Description & Comments space provided. Further description and comments, if necessary, must be provided on a separate sheet of paper and attached to this sheet. Any item that receives a "yes" as an answer must be described and addressed immediately.

Date of Inspection: _____ Tank/Area Name or No.: _____

Inspector: _____ Signature: _____

Environmental Manager Signature: _____

A. TANKS	**YES**	**NO**	**NOTES**
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
B. Secondary Containment (i.e., dikes, pallets, etc.)	**YES**	**NO**	
Area within secondary containment is stained			
Drainage valve is open or is not locked			
Walls or floors are cracked or are separating			
Dike not retaining water (following large rainfall)			
Secondary containment is leaking			
Containment pallet has liquid			
C. Piping	**YES**	**NO**	
Valve seals or gaskets are leaking			
Pipelines or supports are damaged or deteriorated			
Oil on the outside of or under any aboveground piping, hoses, fittings, or valves			
Buried piping is exposed			
Out-of-service pipes are not capped			
Warning signs are missing or damaged			
D. Loading/Unloading and Transfer Equipment	**YES**	**NO**	
Loading/unloading rack is damaged or deteriorated			
Rollover containment berm is damaged or stained			
Berm drainage valve is open or not locked			

C. Security/Safety/Spill Countermeasures	YES	NO	
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
6. Is fire extinguisher properly charged?			
Corrective Actions Required:			

Annual Reminders (Provide date next to each item below when task has been completed)

_____ Tank alarms and instruments will be tested annually to confirm proper function, alarm, and shutdown. Place test results in Appendix I of the Plan.

_____ Hold SPCC briefing of all oil-handling personnel (and update briefing log in the Plan; Appendix E)

_____ Check contact information for key employees and response/cleanup contactors and update them in the Plan as needed.

This report shall be kept on file for at least three years

Appendix G

Dike Water Drainage Log

Secondary Containment Release Log

This log is to be completed whenever water is discharged from a diked area. Only *clean* (oil free) water may be discharged from a diked area. The dike valve must remain closed except when draining water from the diked area. The dike valve must be closed promptly after the diked area is drained.

Date Time Secondary Containment ID Color Foam y/n Visible Sheen y/n Estimated Amount (in inches or gallons) Initials

Date	Time	Secondary Containment ID	Color	Foam y/n	Visible Sheen y/n	Estimated Amount (in inches or gallons)	Initials

* Note: **Water which has sheen must not be discharged from the diked area**. Contaminated water must be treated so that it does not have sheen prior to being discharged from the diked area, or transported off site by a licensed hazardous waste or waste oil contractor for disposal.

Appendix H

Secondary Containment Calculations

Mid Field Fueling

Calculation of secondary containment capacity based on a design-criteria of including a rainfall criterion of 5.76", 25 year storm data for Charlotte, NC:

Containment surface area = 18 ft x 29.08 ft = 523.5 ft^2
Tank volume, based on 100% of tank capacity = 12,000 gallons
Tank volume, in cubic feet = 12,000 gallons / 7.48 gallons/ft^3 = 1,604.28 ft^3
Wall height that would contain the tank's volume = 1,604.28 ft^3 / 523.5 ft^2 = 3.06 ft

Rainfall criterion for 25-year storm in Charlotte = 5.76"
Therefore, a dike design based on a criterion of 25-year storm rainfall criterion of 5.76" would result in a dike wall height of 3.06 ft.

The wall height of the concrete dike at Mid Field Fueling is 3.42 ft. The current wall height meets the standards.

CLT Police Helicopter Pad

Calculation of secondary containment capacity based on a design criterion of 110% of tank storage capacity:

Containment surface area = 30 ft x 35 ft = 1,050 ft^2
Tank volume, based on 100% of tank capacity = 10,000 gallons
Tank volume, in cubic feet = 10,000 gallons / 7.48 gallons/ft^3 = 1,336.90 ft^3
Wall height that would contain the tank's volume = 1,336.90 ft^3 / 1,050 ft^2 = 1.27 ft

Containment capacity with freeboard, based on 110% of tank capacity = 11,000 gallons
Containment capacity, in cubic feet = 11,000 gallons / 7.48 gallons/ft^3 = 1,470.59 ft^3
Wall height equivalent to 110% of storage capacity = 1,470.59 ft^3 / 1,050 ft^2 = 1.40 ft
Height of freeboard = 1.40 ft – 1.27 ft = 0.13 ft = 1.5 inches

Therefore, a dike design based on a criterion of 110% of tank capacity provides a dike wall height of 1.40 feet.

The wall height of the concrete dike at HP1 and HP2 is 1.54 feet. The current wall height meets the standards.

Appendix I

Results of Tank
and/or
Line Testing

Appendix J

Substantial Harm Criteria Checklist

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Old CLT Fleet Maintenance / CLT Center
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Fleet Maintenance – 3801 Harlee Avenue
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT Main Passenger Terminal
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Christine
Name (please type or print)

Jack Christine
Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Old Terminal Building
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT East Field Light Vault
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Cheesting
Name (please type or print)

Jack Thrasher
Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT Mid Field Light Vault
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT West Field Light Vault
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Mid Field Fueling
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Glycol Blending Station
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ No __X__

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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.

Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: American Airlines Maintenance Hanger
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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

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Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: "T"-Point Service & Fueling Area
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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__

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Jack Christine
Name (please type or print)

Signature

Chief Operating Officer
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT Fire Station #41
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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__

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JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT Fire Station #17
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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__

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JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: CLT Police Helicopter Pad
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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__

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JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Honeywell Corporate Aircraft Hangar
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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

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JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Valet Parking Decks
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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.

JACK CHRISTIE
Name (please type or print)

Jack Christie
Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Yorkmont Road Maintenance Area
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ 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 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 such that a discharge from the facility would shut down a public drinking water intake?
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

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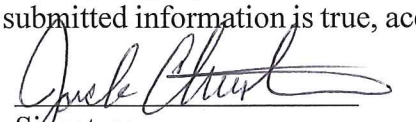
JACK CHRISTINE
Name (please type or print)


Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

SUBSTANTIAL HARM CRITERIA CHECKLIST (40 CFR 112.20 (e))
CERTIFICATION OF THE APPLICABILITY

FACILITY NAME: Charlotte/Douglas International Airport
FACILITY ADDRESS: Cargo Area - Amazon
Charlotte, North Carolina

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 to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes ____ No __X__

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Yes ____ No __X__

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Yes ____ No __X__

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Yes ____ No __X__

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JACK CHRISTINE
Name (please type or print)

Signature

CHIEF OPERATING OFFICER
Title

12/4/19
Date

Appendix K

Corrective Action Photolog

Corrective Action Photographic Log
Charlotte Douglas International Airport
Project #: 4335-19-054-4

Photo 1	
	**Date:** September 6, 2019 **Photographer:** J. Wellons
Location	Blending Station
Remarks	Add lock to tank fill box and drain on tank fill box.

Photo 2	
	**Date:** September 6, 2019 **Photographer:** J. Wellons
Location	Blending Station
Remarks	View of drain on tank fill box. Add lock to prevent unauthorized discharge.

Appendix L

Representative ASTs Photolog

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
1	3/8/16

Direction Photo Taken:

Southwest

Description:

Concourses and other locations. Transformers Quantity – various tank sizes. Quantity 35

Photo No.	Date:
2	4/27/16

Direction Photo Taken:

South

Description:

Concourses and other locations. 55 Gallon Drums –various petroleum products. Quantity 87

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
3	4/27/16

Direction Photo Taken:

North

Description:

Concourses. Emergency Generator – Generac 2000 series, capacity 450 gallons diesel fuel. Quantity 6

Photo No.	Date:
4	4/27/16

Direction Photo Taken:

N/A

Description

CLT Field Maintenance 8,000 gallon double walled AST with pipe fittings.2 diesel, 1 gasoline. Quantity 3

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
5	3/8/16

Direction Photo Taken:

North

Description:

Concourses. Used cooking oil double walled AST – 300 gallon capacity. Quantity: 6

Photo No.	Date:
6	3/8/2016

Direction Photo Taken:

North

Description:

Concourses. Polyethylene double walled tank – capacity, 250 gallons of used oil. Quantity: 3

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
7	3/22/16

Direction Photo Taken:

North

Description:

Double walled concrete AST, 500 gallon capacity, diesel fuel.
Quantity: 3

Photo No.	Date:
8	4/21/16

Direction Photo Taken:

West

Description:

1,000 gallon vegetable oil double walled AST, Concourse C
Quantity 1.

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
9	3/22/16

Direction Photo Taken:

West

Description:

CLT Dock Area – cooking oil. 259 gallons each. Quantity – 2

Photo No.	Date:
10	4/21/16

Direction Photo Taken:

Southeast

Description:

Double walled, concrete tank with 2,000 gallon capacity – diesel fuel. Quantity: 2

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
11	4/21/16

Direction Photo Taken:

Southeast

Description:

Double walled steel tank with concrete dike – capacity 12,000 gallon. Mid Field Fueling.
Quantity: 2
1 – Diesel Fuel
1 - Gasoline

Photo No.	Date:
12	4/27/16

Direction Photo Taken:

Northwest

Description:

Eastern parking deck Kohler generator, capacity 850 gallons, diesel fuel – quantity 1

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
13	4/27/16

Direction Photo Taken:

Northwest

Description:

Helipad
Double walled steel tank with containment dike, 10,000 gallon capacity – jet fuel.
Quantity - 2

Photo No.	Date:
14	3/22/16

Direction Photo Taken:

Southeast

Description:

West Field Light Vault.
Double walled, concrete tank with 6,000 gallon capacity – diesel fuel.
Quantity: 1

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
15	4/27/16

Direction Photo Taken:

Southeast

Description:

CLT Field Maintenance – (3) 260 gallon tanks containing transmission fluid, hydraulic oil, and motor oil.

Photo No.	Date:
16	4/27//16

Direction Photo Taken:

N/A

Description:

Pipe juncture boxes at Helipad. Quantity: 4

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
17	4/27/16

Direction Photo Taken:

Southeast

Description:

CLT Field Maintenance, 500 gallon, double walled tank containing used oil.
Quantity: 1

Photo No.	Date:
18	3/22/16

Direction Photo Taken:

Northeast

Description:

CLT Fire Station #41, double walled steel tank, diesel fuel with a capacity of 800 gallons.
Quantity:1

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
19	4/21/16

Direction Photo Taken:

Southwest

Description:

CLT Fire Station #17, double walled tank with a capacity of 500 gallons – containing diesel fuel.
Quantity: 1

Photo No.	Date:
20	3/22/16

Direction Photo Taken:

Northwest

Description:

CLT Fire Station #17, double walled tank, contains diesel fuel – capacity 2,000 gallons.
Quantity: 1

AECOM

REPRESENTATIVE PHOTOGRAPHIC LOG

Site Name:	Site Location:	Project Number:
Charlotte Douglas International Airport	Mecklenburg County, Charlotte, NC	60490090

Photo No.	Date:
21	4/27/16

Direction Photo Taken:

Southeast

Description:

Western parking deck Generac Industrial emergency generator, capacity 850 gallons diesel fuel. Quantity: 1

Representative ASTs Photolog
Charlotte Douglas International Airport
Project #: 4335-19-054-4

Photo 23	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	New CLT Fleet Maintenance
Remarks	Oil storage room.

Photo 24	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	Terminal A Expansion
Remarks	Emergency generator.

Photo 25	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	T-Point Service Center
Remarks	MOGAS AST.

Photo 26	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	Blending Station
Remarks	Diesel fuel AST.

Photo 27	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	CLT Yorkmont Road Maintenance Area
Remarks	Diesel fuel ASTs and not-in-use AST (background).

Photo 28	
	**Date:** September 6, 2019 **Photographer:** J. WELLONS
Location	Cargo Area
Remarks	Emergency generator.