SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

Prepared for:

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

Maryland Department of Transportation
Maryland Aviation Administration
Division of Planning and Engineering
Office of Environmental Compliance and Sustainability
Environmental Compliance Section
PO Box 8766, Terminal Building, Third Floor
BWI Marshall Airport, Maryland 21240

August 2022

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Agencies and Contact Information for Reporting an Oil Release

Agency or Individual	Address	Phone Number(s)
Federal Agencies		
National Response Center	U.S. Coast Guard (CG-3RFP-2) 2100 2nd Street, SW, Room 2111-B Washington, DC 20593	(800) 424-8802
U.S. Environmental Protection Agency Region III	1650 Arch Street Philadelphia, PA 19103	(800) 438-2474
Chemical Transportation Emergency Center	1300 Wilson Boulevard Arlington, VA 22209	(800) 262-8200
State Agencies		
Maryland Department of the Environment Emergency Response Division	1800 Washington Boulevard Baltimore, MD 21230	(866) 633-4686
Maryland State Police	1201 Reisterstown Road Pikesville, MD 21208	(410) 653-4200 (800) 525-5555
Maryland Emergency Management Agency	5401 Rue Saint Lo Drive Reisterstown, MD 21136	(877) 636-2872
Maryland Department of Natural Resources	Tawes State Office Building 580 Taylor Avenue Annapolis, MD 21401	(877) 620-8367
Local Agencies		
Anne Arundel County Fire Marshal	2660 Riva Road Annapolis, MD 21401	(410) 222-7884
Anne Arundel County Fire/Rescue Operations	8501 Veterans Highway Millersville, MD 21108	(410) 222-8322
Anne Arundel County Police Department Headquarters	8495 Veterans Highway Millersville, MD 21108	(410) 222-8050
Emergency Response Contractors		
Kalyani Environmental Solutions	1201 Bernard Drive Baltimore, MD 21223	(410) 536-4200

Agencies and Contact Information for Reporting an Oil Release (continued)

Agency or Individual	Address	Phone Number(s)
Facility Contacts		
Paul L. Shank, P.E., C.M. Chief Engineer, Division of Planning and Engineering Maryland Department of Transportation Maryland Aviation Administration	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7061
Wayne Pennell, C.M. Chief Operating Officer, Office of Operations and Maintenance	Terminal Building, Third Floor P.O. Box 8766 BWI Marshall Airport, MD 21240	Office: (410) 859-7335
Darline Terrell-Tyson Director, Office of Environmental Compliance and Sustainability, Maryland Department of Transportation Maryland Aviation Administration	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859 -7370
Mark Williams, C.M. Manager, Environmental Compliance Section Office of Environmental Compliance and Sustainability, Maryland Department of Transportation Maryland Aviation Administration	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7448 Cell: (443) 250-1029
Evans Browne Environmental Analyst Environmental Compliance Section Office of Environmental Compliance and Sustainability	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7806 Cell: (410) 215-1514
Airport Operations Center	Terminal Building, Third Floor P.O. Box 8766 BWI Marshall Airport, MD 21240	Office: (410) 859-7018

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LIST OF ACRONYMS AND ABBREVIATIONS

ARFF	Aircraft Rescue and Firefighting Facility
AST	Aboveground Storage Tank
BWI Marshall	Baltimore/Washington International Thurgood Marshall Airport
CDL	Commercial Driver's License
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
COMAR	Code of Maryland Regulations
CRDM	Continuous Release Detection Method
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERC	Emergency Response Coordinator
FRD	Fire and Rescue Department
FRP	Facility Response Plan
JETS	Joint Environmental Tracking System
MDOT MAA	Maryland Department of Transportation Maryland Aviation Administration
MAC	Material Acquisition Center
MDE	Maryland Department of the Environment
NPDES	National Pollutant Discharge Elimination System
OECS	Office of Environmental Compliance and Sustainability
OFOE	Oil-Filled Operational Equipment
OOP	Oil Operations Permit
PCB	Polychlorinated Biphenyl
SIDA	Security Identification Display Area
SPCC	Spill Prevention, Control, and Countermeasure
STI	Steel Tank Institute
SWM	Stormwater Management
SWPPP	Stormwater Pollution Prevention Plan
UST	Underground Storage Tank

1. CERTIFICATIONS

1.1 PROFESSIONAL ENGINEER CERTIFICATION

Regulatory Requirement: *A licensed Professional Engineer must review and certify a Spill Prevention, Control, and Countermeasure (SPCC) Plan for it to be effective to satisfy the requirements of Title 40, Code of Federal Regulations (CFR), Part 112.3.* **[40 CFR §112.3(d)]**

By means of this certification the Professional Engineer attests:

(i) That he is familiar with the requirements of the "U.S. Environmental Protection Agency (EPA) Regulations on Oil Pollution Prevention" (40 CFR §112.7) including amendments

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

(iii) That the SPCC 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

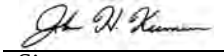
(v) That the SPCC Plan is adequate for the facility.

This Certification is only valid in conjunction with the associated certifications as to the truth, accuracy, and completeness of the information provided and the organizational commitment to provide the necessary resources to implement the practices and procedures described, made herein by the Maryland Department of Transportation Maryland Aviation Administration.

This Certification is no longer valid when there is a change in facility design, construction, operation, or maintenance that materially affects its potential for discharge of oil; or when regulations imposing SPCC Plan requirements change; or when technical (non-administrative) amendments are made to this Plan prior to or during the mandatory 5-year review and evaluation period for the Plan.

A site review was conducted at this facility and, if anything was found needing attention, these items are identified in Section 4 of this SPCC Plan. The following certification is made only under the terms that any action items will be corrected by the management of this facility following an implementation schedule that is provided in Section 4.

Mr. John H. Kumm, P.E.
Certifying Professional Engineer



Signature

29 August 2022
Date

27088
Registration Number

Maryland
State of Registration

Seal affixed:

1.2 APPLICABILITY OF SUBSTANTIAL HARM CRITERIA CERTIFICATION

Facility Name:	Baltimore/Washington International Thurgood Marshall Airport
Facility Address:	991 Corporate Drive, P.O. Box 8766 BWI Marshall Airport, Maryland 21240
Number of Oil Storage Tanks:	40 Aboveground Storage Tanks (including 18 Emergency Generator Day and Sub-Base Tanks), 6 Portable Tanks, 9 Small Drum Storage Areas (up to 48 drums total), 60 Oil-Filled Operational Equipment, 8 Mobile Snow Melter Tanks, and 10 Underground Storage Tanks (USTs; exempt from 40 CFR §112)
Total Oil Storage Capacity:	119,531 gallons (aboveground)
Largest Oil Storage Tank Capacity:	20,000 gallons (aboveground)

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 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 (as calculated using the appropriate formula in 40 CFR §112, Appendix C, Attachment C-III, or comparable formula) such that a discharge from the facility would cause injury to fish and wildlife and sensitive environments?

   Yes _____ No X

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR §112, Appendix C, Attachment C-III, or comparable formula) 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 discharge 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.

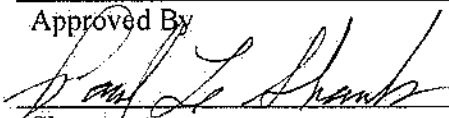
Paul L. Shank, P.E., C.M.	Chief Engineer
Facility Owner/Operator Name	Title
Paul L. Shank	9/27/22
Facility Owner/Operator Signature	Date

1.3 MANAGEMENT APPROVAL CERTIFICATION

Regulatory Requirement: *The owner or operator of a facility subject to 40 CFR §112 must have full approval of management at a level of authority to commit the necessary resources to fully implement the SPCC Plan.* **[40 CFR §112.7]**

This SPCC Plan, prepared by EA Engineering, Science, and Technology, Inc., PBC (EA), has been reviewed by personnel under my supervision in accordance with 40 CFR §112.7. I have the authority to commit the necessary resources to fully implement this SPCC Plan and any action items identified in this SPCC Plan.

Paul L. Shank, P.E., C.M.
Approved By



Signature

Chief Engineer, Division of Planning and Engineering
Title

9/27/22
Date

2. AVAILABILITY OF SPCC PLAN

Regulatory Requirement: *The owner or operator of a facility for which a SPCC Plan is required under 40 CFR §112 must maintain a complete copy of the SPCC Plan at the facility and the SPCC Plan shall be made available upon request.* **[40 CFR §112.3(e)]**

SPCC Plans for facilities are prepared and implemented as required by the EPA regulation contained in 40 CFR §112. A non-transportation-related onshore facility[1] such as Baltimore/Washington International Thurgood Marshall (BWI Marshall) Airport could reasonably be expected to discharge oil into or upon the navigable waters[2] of the United States due to the facility's location, and is thus subject to 40 CFR §112 when one of the following conditions are met by the facility:

- The underground storage capacity[3] at the facility exceeds 42,000 gallons.
- The total aboveground storage capacity of the facility exceeds 1,320 gallons.

The facility's SPCC Plan is not required to be filed with EPA, but a copy of this SPCC Plan must be available to regulatory agency personnel upon request. The Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) will make every effort to work in cooperation with State and Federal agencies as part of the airport's continued commitment to implement safeguards to protect the environment; thus, copies of this SPCC Plan will be maintained at each of the following locations and be available for on-site review during facility operational hours:

1. Maryland Department of Transportation Maryland Aviation Administration
   Office of Planning and Environmental Services
   Division of Environmental Compliance
   991 Corporate Boulevard
   Linthicum, Maryland 21090

2. Baltimore/Washington International Thurgood Marshall Airport
   Office of Maintenance and Utilities
   Division of Airfield, Grounds, and Equipment Maintenance –
   Field Maintenance Section (Building 120)
   Field Maintenance Complex at Fuel Farm Road (across from Daily Parking Garage)
   BWI Marshall Airport, Maryland 21240

[1] A non-transportation-related onshore facility is defined as a facility that is located in, on, or under land and its operations do not include the transportation of oil outside of the facility (Appendix A to 40 CFR §112.2).
[2] Navigable waters include: (1) all navigable waters of the United States and tributaries of such waters as defined in the Federal Water Pollution Control Act; (2) interstate waters; (3) intrastate lakes, rivers, and streams that are utilized by intrastate travelers for recreational or other purposes; and (4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.
[3] The completely buried storage capacity of a facility excludes the capacity of a completely buried tank (as defined in 40 CFR §112.2), connected underground piping, underground ancillary equipment, and containment systems, that is subject to requirements of 40 CFR 280 or to the requirements of a State program approved under 40 CFR 281.

3. Baltimore/Washington International Thurgood Marshall Airport
   BWI Airport Operations Center
   Terminal Building, Third Floor
   BWI Marshall Airport, Maryland 21240

4. Baltimore/Washington International Thurgood Marshall Airport
   Fire and Rescue Department
   1200 Mathison Way
   BWI Marshall Airport, Maryland 21240

3. AMENDMENTS TO SPCC PLAN

3.1 AMENDMENTS BY EPA REGIONAL ADMINISTRATOR

Regulatory Requirement: *EPA may require the facility to amend the SPCC Plan if it finds that the SPCC Plan does not satisfy the requirements of 40 CFR §112, or if amendment is necessary to prevent and contain discharges from the facility. A spill event to navigable waters may subject the facility to additional reporting requirements of 40 CFR §112.4.* **[40 CFR §112.4(d)]**

This SPCC Plan will be amended if:

- The facility discharges a harmful quantity[4] of more than 1,000 gallons of oil in a single discharge, or more than 42 gallons of oil in each of two discharge events within a 12-month period.

- The EPA Region III Administrator determines that the information contained herein does not meet the requirements of 40 CFR §112.

3.2 AMENDMENTS BY OWNER/OPERATOR

Regulatory Requirement: *The SPCC Plan shall be amended within six months of whenever there may be a change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for discharge. The amendment must be implemented as soon as possible and not later than six months following preparation of the amendment.* **[40 CFR §112.5(a)]**

Complete review and evaluation of the SPCC Plan must occur at least once every 5 years. The SPCC Plan shall be amended within six months of the review to include more effective prevention and control technology if such technology has been field-proven at the time of review and will significantly reduce the likelihood of discharge from the facility. The amendment must be implemented as soon as possible and not later than 6 months following preparation of the amendment. Review and evaluation of the SPCC Plan must be documented, including a signed statement as to whether or not the SPCC Plan will be amended. This documentation can be found in Appendix A of this Plan. **[40 CFR §112.5(d)]**

A Professional Engineer must certify any technical amendments to the SPCC Plan in accordance with 40 CFR §112.3. **[40 CFR §112.5(e)]**

This SPCC Plan will be amended when necessary as specified in 40 CFR §112.5 and any reviews or updates will be documented in Appendix A. Amendments may be required if a change in the facility's design, construction, operation, or maintenance materially affects the facility's potential for discharge to the environment.

[4] A harmful quantity is defined by 40 CFR §110 as a quantity that either: (1) exceeds applicable water quality standards, or (2) causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Potential changes to the SPCC Plan may include:

- 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
- Revision of standard operation or maintenance procedures at facility.

In accordance with BWI Marshall's Oil Operations Permit (OOP), any anticipated facility expansions, production increases, or process modification that will result in new, different, or increased oil operations will be reported by submission of a new OOP application or by notice to Maryland Department of the Environment (MDE).

Additionally, the owner or operator may amend the SPCC Plan with technical changes that may include changes to specific security measures and/or to prevention and control technologies. Technical amendments made to the SPCC Plan must be certified by a Professional Engineer.

Due to the dynamic nature of operations at BWI Marshall, the SPCC Plan will be reviewed and evaluated periodically to ensure that changes to facility operations are incorporated appropriately. The SPCC Plan will be amended within six months of the review to include any changes.

The current individual responsible for reviewing potential changes to this SPCC Plan is Mr. Mark Williams, Environmental Program Manager of the MDOT MAA Environmental Compliance Section. Each review and evaluation will be documented in Appendix A by Mr. Williams or his designee.

4. REGULATION COMPLIANCE AND ACTION ITEMS

Regulatory Requirement: *If the SPCC Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items must be discussed in separate paragraphs and must include the details of installation and operational start-up.* **[40 CFR §112.7]**

At the time of preparation of this SPCC Plan, BWI Marshall was in compliance with the requirements of 40 CFR §112. Periodic inspections, tests, and evaluations will be conducted to identify any future non-compliance issues if they arise so that they may be promptly addressed and the SPCC Plan may be appropriately amended, if necessary.

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5. FACILITY DESCRIPTION AND DISCHARGE PREVENTION

Regulatory Requirement: *The SPCC Plan must describe the physical layout of the facility and include a facility diagram that marks the location and contents of each fixed oil storage container and the storage areas where mobile or portable containers are located. If applicable, the facility diagram must include completely buried tanks that are otherwise exempted from the requirements under 40 CFR §112.1(d)(4). The type and volume of oil in each container that is stored at the facility must be described in the SPCC Plan. Additionally, discharge prevention measures, secondary containment, discharge countermeasures, disposal methods, and emergency contacts must also be addressed in the SPCC Plan.* **[40 CFR §112.7(a)(3)]**

5.1 FACILITY INFORMATION

Facility Name and Address:	Baltimore/Washington International Thurgood Marshall Airport Aviation Boulevard and Elm Road BWI Marshall Airport, Maryland 21240
Facility Description:	Airport that serves commuter, charter, cargo, and commercial airlines.
Facility Owner:	State of Maryland Department of Transportation 7201 Corporate Center Drive P.O. Box 548 Hanover, Maryland 21076
Facility Operator:	Maryland Department of Transportation Maryland Aviation Administration 991 Corporate Boulevard Linthicum, Maryland 21090
Facility Tenants:	Airport tenants provide cargo facilities, automobile rental, and various airport and aircraft ground support services.
Fixed Aboveground Storage:	79,821 gallons
Portable Storage:	19,040 gallons
Small Quantity Drum Storage:	Up to approximately 2,640 gallons
Oil-Filled Operational Equipment:	18,030 gallons
Total Aboveground Storage Capacity:	**119,531 gallons**

5.2 FACILITY DESCRIPTION

BWI Marshall serves the Baltimore/Washington region and is located in Anne Arundel County, Maryland, approximately 9 miles south of the City of Baltimore, and approximately 30 miles northeast of Washington, D.C. The airport property currently includes over 3,500 acres; most of

the northern half of the airport property has been developed, while most of the southern quadrants of the property remain largely undeveloped. A site location map of the airport is presented in Appendix B.

BWI Marshall is owned by the State of Maryland and operated by MDOT MAA. The airport serves over 50 commuter, charter, and cargo airlines, and over 30 commercial airlines. The airport's existing terminal complex configuration is classified as a centralized passenger processing building that consists of five piers (four domestic and one international); a Midfield Cargo Facility; and one ground service for passenger airlines, cargo airlines, charter services, and private aircraft. In addition to air operations, airport tenants provide cargo facilities, automobile rental, and various airport and aircraft ground support services.

Because there may be opportunities for potential spills and releases from the facility's tanks, equipment, and associated valves or piping, the intent of this SPCC Plan is to address both spill prevention and spill response actions that will be implemented in the occurrence of such spills and releases during typical storage and/or loading/unloading activities with regards to the tanks, equipment, and associated appurtenances.

5.3 FACILITY OIL STORAGE

Regulatory Requirement: *The SPCC Plan must describe the type of oil in each container and its storage capacity. For mobile or portable storage containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable storage containers, the types of oil, and anticipated storage capacities.* **[40 CFR §112.7(a)(3)(i)]**

The locations, capacities, and contents of the storage containers at BWI Marshall are summarized in Table 5-1. Additional details for each tank are provided in Appendix C, with the location of each oil storage container or storage area depicted in Appendix D. Representative photographs of the active storage containers are shown in Appendix E.

The largest quantity of oil owned and used by MDOT MAA at BWI Marshall is diesel fuel for emergency backup power. Additionally, Jet A fuel is used for firefighting training. Other uses of oil at BWI Marshall include motor oil and transmission fluid for automotive maintenance; diesel fuel for heavy-duty snow removal equipment; dielectric oil for transformers; hydraulic oil for freight and passenger elevators; and used oil generated from vehicle and equipment maintenance operations. Tenants at BWI Marshall own and operate large capacity oil storage facilities in the form of aircraft fueling depots that are covered under their respective tenant SPCC Plans, and are consequently not addressed in MDOT MAA's SPCC Plan. A list of tenants at BWI Marshall that have emergency plans is provided in Appendix F.

Only oil storage containers with capacities of 55 gallons or more are considered in this SPCC Plan [40 CFR §112.1(d)(5)]. Oil storage containers at BWI Marshall that exceed this capacity include the following:

- Thirty-eight fixed aboveground storage tanks (ASTs), which include 13 emergency generator sets with sub-base tanks and 3 emergency generators with day tanks

- Nine drum storage areas consisting of a total of up to 48, 55-gallon drums

- Six portable fueling tanks (1 mobile refueler and 5 portable emergency generators)

- Eight snow melters each equipped with a 1,500-gallon double wall tank (12,000 gallons total) containing Ultra-Low Sulfur Diesel Fuel

- Sixty oil-filled operational equipment (OFOE) that include transformers, hydraulic elevators, and current regulators

- Ten USTs.

5.3.1 Aboveground Storage Tanks

The largest aggregate quantity of the facility's oil storage is located at the Fire Training Facility, where 5,000-gallon and 10,000-gallon ASTs (FTF-1A and FTF-2A, respectively) provide storage for Jet A fuel used for firefighting training. Additionally, two 20,000-gallon ASTs (FTF-3A and FTF-4A) are also located at the Fire Training Facility that provide storage for waste from firefighting training, consisting of Jet A fuel, firefighting foam, and water. FTF-3A and FTF-4A are currently the tanks with the largest storage capacity at BWI Marshall.

The majority of the fixed storage containers consist of diesel fuel stored within generator sets in sub-base tanks or day tanks for emergency backup power. These tanks are located throughout the airport facility and locations are provided in Table 5-1. A 660-gallon sub-base tank E-lA; was relocated to the public side of terminal E due to major earthmoving operations associated with the D/E Connector Project. Following completion of the D/E Connector, E-1A was moved back to the Security Identification Display Area (SIDA) adjacent to Gate E-1 in June 2017. Discussion of this tank's spill prevention measures and safety precautions are included in Sections 12.1 and 11, respectively.

A 60-gallon AST (137-ES-12A) containing used motor oil was added to Building 137 and is connected to the drip pipe from the oil filter crusher. This unit was put into service to replace portable containers that were previously utilized to collect motor oil drips from the crusher’s drain. Refer to Section 9.1.2 and Appendix J-1 for a description of inspection procedures for emergency generators at BWI Marshall.

Other ASTs are shop-fabricated tanks that primarily provide storage for vehicle and equipment maintenance operations:

- Five 275-gallon ASTs (121-VM-1A through 121-VM-5A) located in Room 121-1 of the Vehicle Maintenance Shop (Building 121)

- One 275-gallon used oil AST (121-VM-6A) located in the Main Garage of the Vehicle Maintenance Shop (Building 121)

- One 250-gallon No. 2 heating oil AST (Recently replaced and re-named 121-VM-8A) in Room 121-13 of the Vehicle Maintenance Shop (Building 121)

- Four 240-gallon ASTs (137-ES-6A through 137-ES-9A) located in the shed behind the Heavy Equipment Shop (Building 137)

- One 3,000-gallon AST (E-2A) located at Pier E – International Terminal containing diesel fuel to supply an emergency generator day tank (E-3A)

- One 3,000-gallon AST (123-PS-1A) located outside of the Old Paint Shop (Building 123) containing No.2 heating oil supply for the building

- One 500-gallon AST (134-VM-1A) located outside the Vehicle Maintenance Building (Building 134) containing No. 2 heating oil for the building.

An updated listing of ASTs, including tank identification number, tank size, product stored, and type of secondary containment, is provided to MDE on an annual basis to comply with BWI Marshall's OOP.

5.3.2 Drum Storage

There are nine drum storage areas at BWI Marshall used to store small quantities of oil in 55-gallon steel drums:

- Building 137 – Heavy Equipment Shop (137-ES-1D, 137-ES-2D, and 137-ES-3D)
- Room 180J of the Material Acquisition Center (MAC) Building (172-MAC-1D)
- Building 121 – Main Garage of the Vehicle Maintenance Building (121-VM-9D)
- Building 118 – Equipment Building (118-ES-1D)
- Building 114 – Central Utility Plant (114-CUP-1D and 114-CUP-2D)
- Building 105 – Aircraft Rescue and Firefighting Facility (ARFF) (105-ARFF-1D).

The number of drums stored on-site varies depending on operational needs.

5.3.3 Portable Storage Tanks

MDOT MAA owns and operates a mobile refueler (Tank Truck 533) and five portable emergency generators with fuel tanks (MOBILE-1M through MOBILE-4M; and 114-CUP-1M). The mobile refueler has a 2,700-gallon storage capacity and is used to provide diesel for the emergency generators (day tanks and sub-base fuel tanks), the No. 2 heating oil AST (123-PS-1A), and heavy-duty snow removal equipment. The mobile refueler is normally parked at the Field Maintenance

Facility adjacent to AST-FM-4A between Buildings 116 and 118. Fuel deliveries to the mobile refueler are performed by a state fueling contractor and typically occur in the lot where the truck is normally parked behind Building 116. One of the portable generators has a 2,800-gallon storage capacity tank (114-CUP-1M) and provides temporary power supply primarily for the Central Utility Building (Building 114). The other three portable generators provide temporary power supply at events that occur at the airport.

MAA owns eight (8) trailered snow melters, each equipped with a 1,500-gallon double walled ASTs (12,000 gallons total) containing Ultra-Low Sulfur Diesel Fuel. These devices can be towed to any location throughout the BWI Campus where they may be needed; and are stored within the SIDA at General Aviation.

5.3.4 Oil-Filled Operational Equipment

Although OFOE are regulated under the SPCC Rule and are included in the facility's total oil storage capacity, they are not subject to specific requirements that pertain to bulk storage containers (e.g., secondary containment, overfill alarms, etc.) if they meet qualified OFOE requirements. The OFOE at BWI Marshall include the following:

- Transformers[1] containing dielectric fluid located outdoors at substations throughout the facility

- Hydraulic systems for elevators (passenger and freight) and vehicle lifts[2] located indoors throughout the airport terminal and other buildings

- Electrical current regulators for the airport field lighting located indoors at the Field Lighting Vault (Building 101).

Qualified OFOE requirements include:

- No single discharge from OFOE exceeding 1,000 gallons or no two discharges each exceeding 42 gallons within any 12-month period in the 3 years prior to the SPCC Plan certification date

- Establishing and documenting the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge

- Provide an oil spill contingency plan with a written commitment of manpower, equipment, and materials to respond to a discharge of oil.

All OFOE are managed through active containment measures (e.g., spill kits), passive containment measures (e.g., containment sump and catchment basin), or a combination. In addition, all OFOE are inspected during the monthly documented inspections. Section 5.5 describes discharge

[1] Oil stored in transformers at BWI Marshall Airport does not contain polychlorinated biphenyls (PCBs).
[2] Vehicle lifts, due to their indoor locations and oil storage capacities of less than 55 gallons, are not included in this SPCC Plan.

countermeasures employed at the facility for minor and major discharges of oil. Section 8.3 describes oil spill contingency planning. There have been no discharges from OFOE within 3 years of the certification of this SPCC.

5.3.5 Underground Storage Tanks

The completely buried storage capacity that is subject to the SPCC rule does not include underground storage tanks that are subject to 40 CFR §280 or 40 CFR §281, and thereby is exempt from 40 CFR §112. BWI Marshall owns and operates a total of 10 active USTs with a total underground storage capacity of 124,000 gallons:

- Four USTs supply diesel fuel for emergency generators
  - Tank 003 is a 1,500-gallon UST located at the Field Lighting Vault (Building 101)
  - Tank 012 is 2,500-gallon UST located at the Aircraft Rescue and Firefighting Facility (ARFF) (Building 105)
  - Tanks 004 and 063 are each 2,500-gallon USTs located adjacent to the Hourly Parking Garage (Building 160)
- Four USTs supply heating oil to various buildings on-site
  - Tanks 006, 007, and 008 are each 30,000-gallon double-walled USTs located at the Utility Building (Building 114)
  - Tank 010 is a 2,000-gallon double-walled UST located at the Field Maintenance Office (Building 120)
- Two USTs supply motor vehicle fuel at Field Maintenance (Building 116)
  - Tank 064 is an 8,000-gallon double-walled UST used to store gasohol for vehicle fueling
  - Tank 065 is used to store 15,000 gallons of ultra-low sulfur diesel for vehicle fueling.

These exempt USTs are included in Table 5-1 for reference, but all are Part 280/281 compliant and are therefore not subject to Part 112.

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
101-FLV-1A	011A	Emergency Generator Day Tank - Fuel Supply	Building 101 - Field Lighting Vault	1	275	Diesel Fuel	2002	Shop-Fabricated, Single-Walled Steel Tank	1
MOBILE-1M	172-MAC-1M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	100	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	1
MOBILE-2M	172-MAC-2M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	160	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	1
MOBILE-3M	172-MAC-3M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	80	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	2
MOBILE-4M	N/A	Portable Emergency Generator	Building 112 – Behind Cargo Building	1	1,200	Diesel Fuel	2015	Shop-Fabricated, Double-Walled Steel Tank	1
114-CUP-1M	--	Portable Emergency Generator	Building 114 - Central Utility Plant	1	2,800	Diesel Fuel	2012	Shop-Fabricated, Double-Walled Steel Tank	1
114-CUP-1D	--	Drum Storage Used Oil Drums	Building 114-Central Utility Plant	4	220	Used Oil/Used Refrigerant Oil	N/A	Plastic Drums	N/A
114-CUP-2D	--	Drum Storage	Building 114-Central Utility Plant	2	110	Refrigeration Oil	N/A	Steel Drums	N/A
533	---	Mobile refueler - Diesel Fuel Deliveries for Vehicles and Equipment	Building 115 - Field Maintenance (Typically Parked Between Building 115 and Building 158)	1	2,700	Diesel Fuel	N/A	Mobile refueler, Single-Walled Steel Tank	2

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
116-FM-2A	046A, B-2A	Emergency Generator Sub-Base Tank - Fuel Supply	Behind Building 116 – Field Maintenance	1	375	Diesel Fuel	2010; Relocated in 2012	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	N/A
116-FM-4A	050A	AST - Fuel Supply	Building 116 - Field Maintenance (behind FMX Building)	1	4,000	Diesel Fuel	2014	Shop-Fabricated, Double-Walled Steel Tank	1
118-ES-1D	--	Drum Storage	Building 118 - Equipment Building	3	165	Oil	N/A	Steel Drum	N/A
121-VM-1A	034A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (15/40)	2008	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-2A	032A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (10/30)	2008	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-3A	041A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Automatic Transmission Fluid	2008	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-4A	035A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Hydraulic Oil	2008	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-5A	033A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (5/30)	2008	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-6A	007A	AST - Used Oil from Vehicle Maintenance	Building 121 - Vehicle Maintenance (Main Garage)	1	275	Used Oil	1995	Shop-Fabricated, Single-Walled Steel Tank	1
121-VM-8A	029A	AST - Heating Fuel Supply	Building 121 - Vehicle Maintenance (Room 121-3)	1	250	No. 2 Heating Oil	1998	Shop-Fabricated, Single-Walled Steel Tank	2
121-VM-9D	--	Drum Storage Used Oil Drums	Building 121 - Vehicle Maintenance (Main Garage)	1	55	Used Oil	N/A	Steel Drum	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
123-PS-1A	040A	AST - Heating Fuel Supply	Building 123 - Old Paint Shop	1	3,000	No. 2 Heating Oil	2008	Shop-Fabricated, Double-Walled Steel Tank	1
134-VM-1A	--	AST - Heating Fuel Supply	Building 134 - Vehicle Maintenance (Northeast Corner)	1	500	No. 2 Heating Oil	2012	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-12A	--	AST-Used Oil from Drained Filters	Heavy Equipment Shop, Building 137	1	60	Used Oil	2017	Shop -Fabricated Double-Walled Galvanized Steel tank	N/A
137-ES-6A	043A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	Automatic Transmission Fluid	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-7A	038A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	Hydraulic Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-8A	037A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	15/40 Heavy Weight Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-9A	039A	AST - Used Oil from Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)	1	240	Used Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-10A	036A	AST – Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	60	10/30 Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-11A	N/A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)	1	60	Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	1
137-ES-1D	028A	Drum Storage - Used Oil Drums	Building 137 - Heavy Equipment Shop	Up to 5	Up to 275 (55 gal/ea.)	Crankcase Oil	N/A	Steel and Poly Drums	N/A
137-ES-2D	--	Drum – Small Engine Fueling	Building 137- Heavy Equipment Shop (Yellow Shed Behind Building)	1	55	2-cycle fuel	N/A	Steel Drum	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
137-ES-3D	--	Drum Storage – Vehicle Maintenance	Building 137- Heavy Equipment Shop (Shed Behind Building)	1	55	Motor Oil	N/A	Steel Drum	N/A
140-DPG-1A	017A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 140 - Daily Parking Garage (On Hill to West of Garage)	1	1,750	Diesel Fuel	2003	Shop-Fabricated, Double-Walled Steel Tank	1
155-KAUF-2A	026A, C-2A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building	1	411	Diesel Fuel	2011	Shop-Fabricated, Double-Walled Steel Tank	1
155-KAUF-3A	155-KAUF-1A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building	1	310	Diesel Fuel	2014	Shop-Fabricated, Double-Walled Steel Tank	1
160-HPG-1A	010A	Emergency Generator Day Tank - Fuel Supply	Building 160 - Hourly Parking Garage (Emergency Generator Room - First Floor Across From 1G Parking Area)	1	200	Diesel Fuel	2002	Shop-Fabricated, Double-Walled Steel Tank	1
160-HPG-2A	016A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 160 - Hourly Parking Garage (By Terminal Loop Below Skywalk)	1	375	Diesel Fuel	2003	Shop-Fabricated, Double-Walled Steel Tank	1
172-MAC-1A	012A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 172 - MAC Building (By MAA Radio Tower)	1	700	Diesel Fuel	2006	Shop-Fabricated, Double-Walled Steel Tank	1
172-MAC-1D	027A	Drum Storage - Stock Oils for Vehicle or Equipment Use	Building 172 - MAC Building (Room 180J)	Up to 25	Up to 1,375 (55 gal/ea.)	Gear Oil, Hydraulic Oil, Motor Oil, Lubricating Oil, Transmission Fluid	--	Steel Drums	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
FTF-1A	001A	AST - Firefighting Training Fuel	Fire Training Facility	1	5,000	Jet A	1988 / Modified in 2006	Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	1
FTF-2A	002A	AST - Firefighting Training Fuel	Fire Training Facility	1	10,000	Jet A	2006	Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	1
FTF-3A	030A	AST - Firefighting Training Used Fuel/Waste	Fire Training Facility	1	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	2008	Shop-Fabricated, Double-Walled Steel Tank	1
FTF-4A	031A	AST - Firefighting Training Used Fuel/Waste	Fire Training Facility	1	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	2008	Shop-Fabricated, Double-Walled Steel Tank	1
105-ARFF-1D	--	Drum Storage	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	Up to 6	Up to 330 (55 gal/ea.)	Oil	N/A	Steel & Poly Drums	N/A
MELT-1 through MELT-8	--	Mobile AST affixed to each of 8 Snow Melter Units	Stored within Long Term B Parking Lot during off-season, and within the SIDA at General Aviation during De-Icing Season.	8	12,000	Ultra-Low Sulfur Diesel	N/A	Shop-Fabricated, Double-Walled Steel Tank	N/A
A-1A	025A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - Terminal A (Room AT049A)	1	600	Diesel Fuel	2005	Shop-Fabricated, Double-Walled Steel Tank	1
A-2A	024A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - By Triturator (15R Deicing)	1	430	Diesel Fuel	2005	Shop-Fabricated, Double-Walled Steel Tank	1
B-1A	014A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier B - Domestic Terminal (Gate B-7)	1	150	Diesel Fuel	2000	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	1

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
C-3A	--	Emergency Generator Sub-Base Tank – Fuel Supply	Pier C – Between Gate C-7 and C tower	1	3,540	Diesel Fuel	2012	Shop-Fabricated, Double-Walled Steel Tank	1
C-4A	--	Emergency Generator Sub-Base Tank - Fuel Supply	Pier C – Gate C-4	1	800	Diesel Fuel	2013	Shop-Fabricated, Double-Walled Steel Tank	1
E-1A	047A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier E - International Terminal (public side of terminal)	1	660	Diesel Fuel	2010	Shop-Fabricated, Double-Walled Steel Tank	1
E-2A	049A	AST - Fuel Supply to AST E-3A (for Emergency Generator)	Pier E - International Terminal	1	3,000	Diesel Fuel	2010	Shop-Fabricated, Double-Walled Steel Tank	1
E-3A	008A	Emergency Generator Day Tank - Fuel Supply	Pier E - International Terminal (Roof)	1	150	Diesel Fuel	1997	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	1
E-4A	--	Emergency Generator Sub-Base Tank – Fuel Supply	Pier E – International Terminal between Gates E-5 & E-7	1	555	Diesel Fuel	2018	Shop-Fabricated Double-Walled Steel Tank	1
ONS-1T	T-1	OFOE - Transformer - Electric Transmission	Old North Substation	1	1,545	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
ONS-2T	T-2	OFOE - Transformer - Electric Transmission	Old North Substation	1	1,545	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
NS-1T	T-3	OFOE - Transformer - Electric Transmission	North Substation	1	1,582	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
NS-2T	T-4	OFOE - Transformer - Electric Transmission	North Substation	1	1,299	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
NS-3T	T-5	OFOE - Transformer - Electric Transmission	North Substation	1	1,299	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
SS-1T	T-6	OFOE - Transformer - Electric Transmission	South Substation	1	1,318	Dielectric Fluid (Non-PCB)	2022	N/A	N/A
SS-2T	T-7	OFOE - Transformer - Electric Transmission	South Substation	1	940	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
SS-3T	T-8	OFOE - Transformer - Electric Transmission	South Substation	1	1,582	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
105-ARFF-1T	T-9	OFOE - Transformer - Electric Transmission	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	1	224	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
28PS-1T	T-10	OFOE - Transformer - Electric Transmission	28 Pump Station	1	192	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
28DP-1T	T-11	OFOE - Transformer - Electric Transmission	28 Deicing Pad	1	192	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
GLY-1T	T-12	OFOE - Transformer - Electric Transmission	Glycol Facility	1	539	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
TRI-1T	T-13	OFOE - Transformer - Electric Transmission	Triturator Facility	1	353	Dielectric Fluid (Non-PCB)	Unknown	N/A	N/A
172-MAC-1E	E-24	OFOE - Hydraulic Elevator - Passenger Transportation	Building 172 - MAC Building (Lobby)	1	120	Hydraulic Oil	Unknown	N/A	N/A
A-A124-1E	E-1	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - A124	1	150	Hydraulic Oil	2004	N/A	N/A
A-AT029-2E	E-3	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT029A	1	145	Hydraulic Oil	2004	N/A	N/A
A-AT029-3E	E-2	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT029	1	125	Hydraulic Oil	2004	N/A	N/A
A-AT108-4E	E-4	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT108	1	140	Hydraulic Oil	2004	N/A	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
A-AT108-5E	E-5	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT108	1	140	Hydraulic Oil	2004	N/A	N/A
A-BT013-1E	E-6	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT013	1	140	Hydraulic Oil	2004	N/A	N/A
A-BT013-2E	E-7	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT013	1	150	Hydraulic Oil	2004	N/A	N/A
A-BT131-3E	E-8	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT131	1	140	Hydraulic Oil	2004	N/A	N/A
A-BT131-4E	E-9	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT131	1	130	Hydraulic Oil	2004	N/A	N/A
B-B112C-1E	E-10	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B - B112C	1	130	Hydraulic Oil	2004	N/A	N/A
B-B149E-1E	E-13	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B - B149E	1	150	Hydraulic Oil	1998	N/A	N/A
B-SKYB12-1E	E-12	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B Skywalk - SKYB12	1	140	Hydraulic Oil	2003	N/A	N/A
B-SKYB13-2E	E-11	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B Skywalk - SKYB13	1	110	Hydraulic Oil	2003	N/A	N/A
C-C135A-1E	E-14	OFOE - Hydraulic Elevator - Passenger Transportation	Pier C - C135A	1	80	Hydraulic Oil	Unknown	N/A	N/A
CT1001-1E	E-28	OFOE - Hydraulic Elevator - Passenger Transportation	South Terminal Host - CT 1001	1	90	Hydraulic Oil	1998	N/A	N/A
CT104K-3E	E-21	OFOE - Hydraulic Elevator - Passenger Transportation	Central Terminal - CT104K	1	130	Hydraulic Oil	2006	N/A	N/A
CT104K-4E	E-22	OFOE - Hydraulic Elevator - Passenger Transportation	Central Terminal - CT104K	1	130	Hydraulic Oil	2006	N/A	N/A
CT106-1E	E-20	OFOE - Hydraulic Elevator - Freight Elevator	Central Terminal - CT106	1	80	Hydraulic Oil	2003	N/A	N/A
CUST-1210-1E	E-29	OFOE - Hydraulic Elevator - Passenger Transportation	U.S. Customs - 1210	1	120	Hydraulic Oil	Unknown	N/A	N/A
CUST-1210-2E	E-30	OFOE - Hydraulic Elevator - Passenger Transportation	U.S. Customs - 1210	1	120	Hydraulic Oil	Unknown	N/A	N/A
D-DX151-1E	E-15	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D - DX151	1	130	Hydraulic Oil	1986	N/A	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
D-DY100L-1E	E-18	OFOE - Hydraulic Elevator - Passenger Transportation	Pier DY Tower - DY100L	1	120	Hydraulic Oil	1998	N/A	N/A
D-DY113C-1E	E-19	OFOE - Hydraulic Elevator - Passenger Transportation	Pier DY - DY113C	1	130	Hydraulic Oil	2006	N/A	N/A
D-SKYD11-5E	E-16	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D Skywalk - SKYD11	1	90	Hydraulic Oil	Unknown	N/A	N/A
D-SKYD12-6E	E-17	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D Skywalk - SKYD12	1	100	Hydraulic Oil	Unknown	N/A	N/A
INT-1602-1E	E-31	OFOE - Hydraulic Elevator - Passenger Transportation	Concourse E - Upper Level Ramp - 1602	1	135	Hydraulic Oil	Unknown	N/A	N/A
INT-1703-1E	E-23	OFOE - Hydraulic Elevator - Passenger Transportation	International Red Column - 1703	1	140	Hydraulic Oil	Unknown	N/A	N/A
NT110-1E	E-25	OFOE - Hydraulic Elevator - Freight Elevator	North Terminal - NT110	1	130	Hydraulic Oil	2002	N/A	N/A
OBS-ST105B-1E	E-26	OFOE - Hydraulic Elevator - Passenger Transportation	Observation Gallery - ST105B	1	120	Hydraulic Oil	Unknown	N/A	N/A
ST120-1E	E-27	OFOE - Hydraulic Elevator - Freight Elevator	South Terminal - ST120	1	100	Hydraulic Oil	2002	N/A	N/A
USO-NTE265-1E	E-32	OFOE - Hydraulic Elevator - Passenger Transportation	United Service Organization - NTE265	1	120	Hydraulic Oil	Unknown	N/A	N/A
101-FLV-1R	R-1	OFOE - Regulator - Electrical Current Regulation R/W 10-28 Edge Lights East (30 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-2R	R-2	OFOE - Regulator - Electrical Current Regulation - R/W 10-28 Centerline Lights (50 kW @ 20 A)	Building 101 - Field Lighting Vault	1	165	Oil	Unknown	N/A	N/A
101-FLV-3R	R-3	OFOE - Regulator - Electrical Current Regulation - R/W 10-28 Touchdown Lights (50 kW @ 20 A)	Building 101 - Field Lighting Vault	1	165	Oil	Unknown	N/A	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
101-FLV-4R	R-4	OFOE - Regulator - Electrical Current Regulation - R/W 15R-33L Touchdown Lights (50 kW @ 20A)	Building 101 - Field Lighting Vault	1	90	Oil	Unknown	N/A	N/A
101-FLV-5R	R-5	OFOE - Regulator - Electrical Current Regulation - R/W 15R-33L Touchdown Lights (20 kW @ 6.6 A)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-6R	R-6	OFOE - Regulator - Electrical Current Regulation - T/W R, S (15 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-7R	R-7	OFOE - Regulator - Electrical Current Regulation - T/W U, V (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-8R	R-8	OFOE - Regulator - Electrical Current Regulation - T/W U1 Centerline (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-9R	R-9	OFOE - Regulator - Electrical Current Regulation - T/W P (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-10R	R-10	OFOE - Regulator - Electrical Current Regulation - T/W K, Q, L, and R/W 15L-33R (30 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-11R	R-11	OFOE - Regulator - Electrical Current Regulation - T/W J, M (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	N/A
101-FLV-12R	R-12	OFOE - Regulator - Electrical Current	Building 101 - Field Lighting Vault	1	90	Oil	Unknown	N/A	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
		Regulation - Spare Regulator							
101-FLV-13R	R-13	OFOE - Regulator - Electrical Current Regulation - R/W 04-22 Edge Lights (30 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	N/A
101-FLV-14R	R-14	OFOE - Regulator - Electrical Current Regulation - T/W F, G and 15R Deicing (20 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	N/A
101-FLV-15R	R-15	OFOE - Regulator - Electrical Current Regulation - T/W D1, D2, P2 (15 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	N/A
--	3	UST* - Emergency Generator Fuel Supply	Building 101 - Field Lighting Vault	1	1,500	Diesel Fuel	1993	Double-Walled Steel Tank	N/A
--	12	UST* - Emergency Generator Fuel Supply	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	1	2,500	Diesel Fuel	1996	Single-Walled Fiberglass Reinforced Plastic Tank	N/A
--	6	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	N/A
--	7	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	N/A
--	8	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	N/A
--	64	UST* - Vehicle Fuel Supply	Building 116 - Field Maintenance	1	8,000	Gasohol	2005	Double-Walled Composite Tank	N/A

TABLE 5-1. Oil Storage Containers at BWI Marshall.

New Tank ID	Old Tank ID	Description/Use	Location	No. of Units	Capacity (gallons)	Contents	Year Installed	Construction	Category Per STI SP-001
--	65	UST* - Vehicle Fuel Supply	Building 116 - Field Maintenance	1	15,000	Ultra-low Sulfur Diesel Fuel	2005	Double-Walled Composite Tank	N/A
--	10	UST* - Boiler Fuel Supply	Building 120 - Field Maintenance Office	1	2,000	Heating Oil	1993	Double-Walled Steel Tank	N/A
--	4	UST* - Emergency Generator Fuel Supply	Building 160 - Hourly Parking Garage	1	2,500	Diesel Fuel	1993	Single-Walled Fiberglass Reinforced Plastic Tank	N/A
--	63	UST* - Emergency Generator Fuel Supply	Building 160 - Hourly Parking Garage	1	2,500	Diesel Fuel	2004	Double-Walled Fiberglass Reinforced Plastic Tank	N/A

* Subject to 40 CFR 280 or 40 CFR 281; therefore, exempt from 40 CFR 112.
N/A = Not applicable; PCB = Polychlorinated biphenyl; STI = Steel Tank Institute.

5.4 DISCHARGE PREVENTION MEASURES

Regulatory Requirement: *The SPCC Plan must describe discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.).* **[40 CFR §112.7(a)(3)(ii)]**

The SPCC Plan should also describe discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for discharge control. **[40 CFR §112.7(a)(3)(iii)]**

The remainder of this SPCC Plan describes the routine handling of oil products and preventative measures used at BWI Marshall to minimize the potential for discharge incidents at the facility. Measures taken to prevent discharges to navigable waters include, but are not limited to:

- Design and maintenance of secondary containment in compliance with 40 CFR §112.7(c), as discussed in Sections 8 and 16 of this SPCC Plan
- Inspections conducted in accordance with 40 CFR §112.7(e), as outlined in Section 9
- Proper loading and unloading procedures in compliance with 40 CFR §112.7(h), as discussed in Section 12
- Management of facility drainage in compliance with 40 CFR §112.8(b), as outlined in Section 15
- Design and maintenance of bulk storage containers in accordance with 40 CFR §112.8(c), as described in Section 16
- Design and maintenance of oil transfer systems in accordance with 40 CFR §112.8(d), as discussed in Section 17.

5.5 DISCHARGE COUNTERMEASURES

Regulatory Requirement: *The SPCC Plan must describe countermeasures for discharge discovery, response, and cleanup (both the facility's capabilities and those that might be required of a contractor).* **[40 CFR §112.7(a)(3)(iv)]**

The SPCC Plan must describe methods of disposal of recovered materials in accordance with applicable legal requirements. **[40 CFR §112.7(a)(3)(v)]**

The SPCC Plan must include contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom the facility has an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in the occurrence of a discharge. **[40 CFR §112.7(a)(3)(vi)]**

5.5.1 Spill Response Procedures

The uncontrolled discharge of oil to groundwater, surface water, or soil is prohibited per regulations and thus, immediate action must be taken to control, contain, and recover discharged product. The appropriate response procedures to follow will depend on characteristics of the spill that include:

- Size of the spill
- Whether the spill is of immediate danger to human health and safety or to the environment
- Where the spill occurred (indoors, outdoors, aboveground, underground, etc.)
- Whether the spill can be contained, or if the spill reached waterways, storm drains, soils, or shorelines.

A spill will be classified as either "minor" or "major" based on the spill characteristics discussed above:

- ***Minor Spill***—Does not pose any significant harm or threat to human health and safety or to the environment. Can be contained indoors or limited to paved surfaces and cleaned up prior to releasing to the environment (i.e., does not reach waterways, storm drains, soils, or shorelines). Rule of thumb for spill quantity is typically less than 25 gallons.[1]
- ***Major Spill***—Presents significant harm or threat to human health and safety or to the environment. Cannot be safely controlled or contained or is released to the environment (i.e., reaches waterways, storm drains, soils, or shorelines). Rule of thumb for spill quantity is typically greater than 25 gallons. Typically requires specialized response team, outside emergency response, or remediation contractor to safely control and clean up.

The response procedures for minor and major spills are described in the following sections and summarized in the flowchart provided in Figure 5-1. In all cases, the initial response actions should be conducted in a safe manner, placing the safety and security of persons in the area above all other factors. MDOT MAA personnel may clean up the spill only if they are properly trained in spill cleanup and discharge response, where the cleanup activities to be taken will depend on the resources available in the immediate vicinity of the incident.

[1] Most hydrocarbon fuels and hydraulic oils are mixtures of multiple constituents and are not listed under the hazardous substances list under Emergency Planning and Community Right-to-Know Act (EPCRA). As a result, reporting petroleum product releases that exceed 25 gallons has been considered a general rule of thumb since benzene, a common constituent found in petroleum products, has a reportable quantity of 25 gallons. (Benzene is among the chemicals that can be found on the EPCRA Hazardous Substances list, 40 CFR §302.4.) The reportable quantity of 25 gallons is thus used as a de minimis level of concern for gasoline or diesel spills before remediation is required.

5.5.1.1 Minor Spill Response

For spills that are contained indoors or limited to paved surfaces (i.e., spill can be cleaned up prior to reaching storm drains, waterways, or soils), the following procedures apply:

1. If properly trained, MDOT MAA personnel will stop spill and contain using nearby spill kit or absorbent materials. Absorbent materials (e.g., spill pads, booms, kitty litter) will be allowed to absorb the spilled oil after application.

2. MDOT MAA personnel will call BWI Airport Operations to report the spill. All personnel will be equipped with a means of communication via phone, cell phone, or radio. Individuals with access to a phone or cell phone can call BWI Airport Operations directly to report the spill. Individuals who are equipped with a radio will need to first notify their Supervisor(s), who will then report the spill to BWI Airport Operations. The following information will be provided:

    a. Location and time of incident
    b. Duration of release
    c. Name and/or type of material released
    d. Amount and size of container(s) from which release occurred
    e. The medium or media into which the release occurred
    f. Dangerous properties of the material, if any
    g. Number of personnel injured or involved, if any

3. BWI Airport Operations will notify the Fire and Rescue Department (FRD) of the spill, and it will be the discretion of Airport Operations to decide if FRD will be required to respond to the spill.

4. BWI Airport Operations will dispatch an on-site emergency response vehicle for additional spill response support, if necessary. MDOT MAA personnel will assist the dispatched emergency response team as needed or if directed to do so.

5. If properly trained to do so, personnel will clean up the absorbent materials. The used absorbent will be placed in the appropriate containers, properly labeled and moved to one of the two 90-day storage buildings located at BWI Marshall. MDOT MAA Environmental Compliance (EC) will then coordinate the pick-up and proper disposal of the drummed materials by a licensed contractor. If not properly trained, the personnel will remain at the spill site until someone who is properly trained in disposal arrives. The empty disposal containers at BWI Marshall are located in the 90-day storage building located behind Building 137 and in the MAC (Building 172) parking lot.

5.5.1.2 Major Spill Response

For spills that are too large to contain (typically greater than 25 gallons) or spills that reach storm drains, waterways, or soils, the following procedures apply:

1. If spill is discharging from fueling pumps, activate emergency shut-off switch to immediately stop the flow of oil. If properly trained, stop spill and use nearby spill kit or absorbent material to clean up spill where feasible. Allow absorbent materials (e.g., spill pads, booms, kitty litter) to absorb the spilled oil after application.

2. Call BWI Airport Operations to report the spill. Provide the following information:

    a. Location and time of incident
    b. Duration of release
    c. Name and/or type of material released
    d. Amount and size of container(s) from which release occurred
    e. The medium or media into which the release occurred
    f. Dangerous properties of the material, if any
    g. Number of personnel injured or involved, if any

3. BWI Airport Operations will notify FRD and the Shift Commander will assume the role of the Emergency Response Coordinator (ERC) and control the situation. If personnel were injured as a result of the spill incident, BWI Airport Operations will notify Emergency Medical Services to respond to the scene.

4. BWI Airport Operations will dispatch the emergency response vehicle to immediately respond to the scene. If necessary, BWI Airport Operations will also dispatch MDOT MAA's current emergency response contractor (Table 5-2) if additional response support or site remediation is required.

5. BWI Airport Operations will notify EC to report the spill, providing the same information that was provided to Airport Operations by the individual who discovered the spill. EC will notify the appropriate agencies and emergency response/remediation contractors.

6. Cleanup and disposal of waste materials resulting from a major spill is determined on a case by case basis. The remediation, containerization and disposal of waste materials from a major spill caused by MDOT MAA will be conducted by EC's remediation or cleanup contractor(s). Cleanup and disposal of waste material from a major spill caused by an MDOT MAA tenant is addressed in Tenant Directive 502.1, provided in Appendix Q.

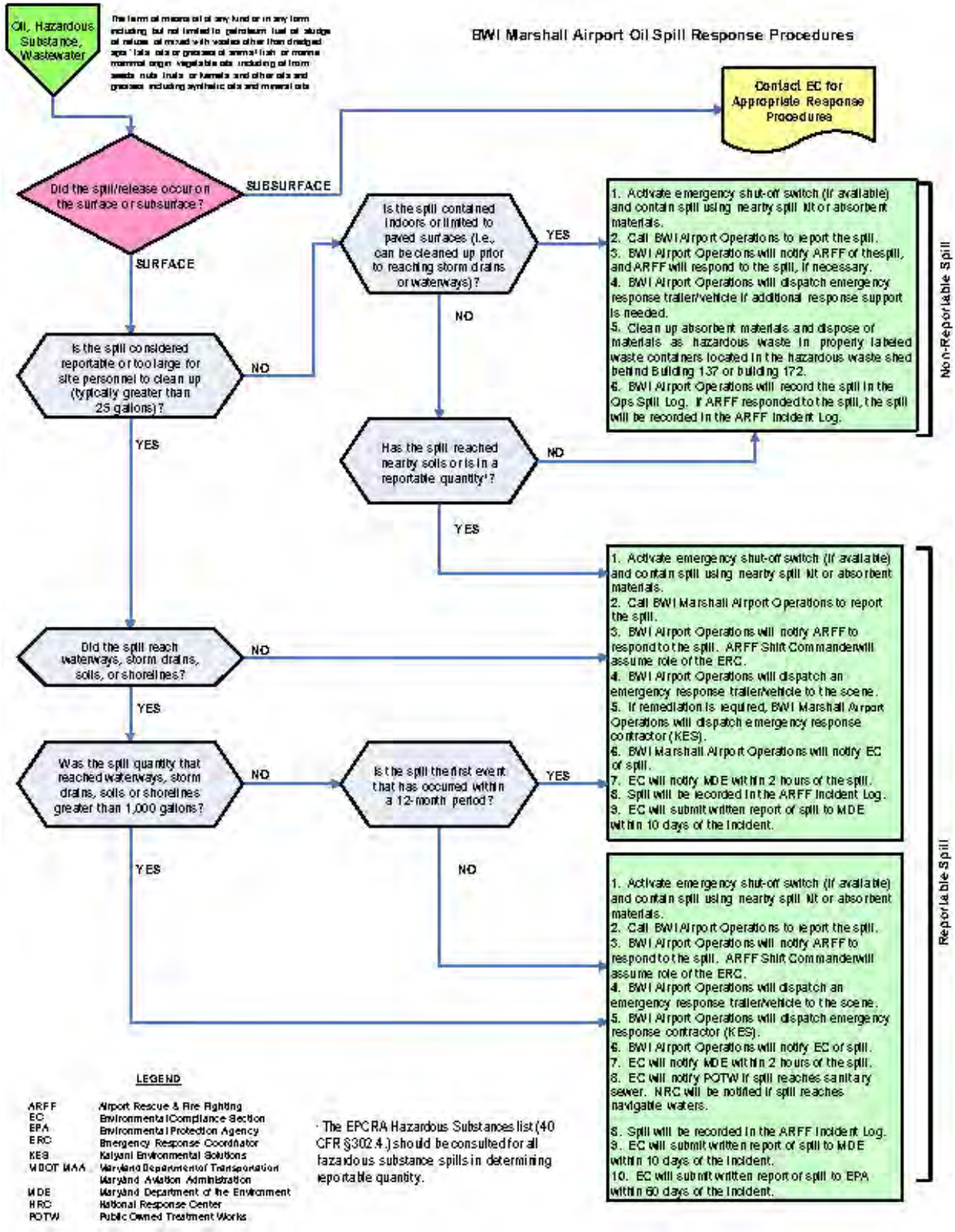

FIGURE 5-1. Oil Spill Response Procedures.

5.5.2 Emergency and Response Contacts

All MDOT MAA personnel with oil handling responsibilities are to be equipped with two-way radio systems and/or telephone communication in order to summon and coordinate appropriate emergency response activities. Spill control and response are the responsibility of the designated ERC. In the event of an oil spill, the designated ERC or alternative responder will be notified. At least one person, either on facility premises or on-call, will assume the responsibilities of the designated responder at all times. The designated responder or alternate will be thoroughly familiar with this SPCC Plan, facility operations, materials and products handled on-site, and response procedures.

Additionally, BWI Marshall is staffed with maintenance personnel 24 hours per day. Maintenance personnel will be provided with a copy of this SPCC Plan and will serve as emergency responders in the event that the designated ERC is not on-site, and provide access for outside emergency responders as needed. In the event that a major spill cannot be contained, the current emergency response contractor for BWI Marshall should be contacted immediately. The current emergency response contractor for BWI Marshall is included in Table 5-2 with the summary of facility emergency contacts.

Spills that result from tenant activities are addressed by the tenant or their subcontractor(s). Written procedures for notifying EC have been developed and distributed to tenants via a Tenant Directive, provided in Appendix Q.

The following information shall be provided to emergency contacts when reporting the spill:

- Name and/or type of material spilled or released, and indication of whether material is hazardous
- Location of release
- Time and duration of release
- Quantity released and size of container(s) from which spill or release occurred
- The medium or media into which the release occurred
- Known or anticipated acute or chronic health risks associated with the release
- Proper precautions to take as a result of release, including evacuation, if necessary
- Type of personal injuries, if any.

TABLE 5-2. Agencies and Contact Information for Reporting an Oil Release.

Agency or Individual	Address	Phone Number(s)
Federal Agencies		
National Response Center	U.S. Coast Guard (CG-3RFP-2) 2100 2nd Street, SW, Room 2111-B Washington, DC 20593	(800) 424-8802 (202) 267-2180
U.S. Environmental Protection Agency (EPA) Region III	1650 Arch Street Philadelphia, PA 19103	(800) 438-2474
Chemical Transportation Emergency Center (CHEMTREC)	1300 Wilson Boulevard Arlington, VA 22209	(800) 262-8200
State Agencies		
Maryland Department of the Environment (MDE) Emergency Response Division	1800 Washington Boulevard Baltimore, MD 21230	(866) 633-4686
Maryland State Police	1201 Reisterstown Road Pikesville, MD 21208	(800) 525-5555 (410) 653-4200
Maryland Emergency Management Agency	5401 Rue Saint Lo Drive Reisterstown, MD 21136	(877) 636-2872
Maryland Department of Natural Resources	Tawes State Office Building 580 Taylor Avenue Annapolis, MD 21401	(877) 620-8367
Local Agencies		
Anne Arundel County Fire Marshal	2660 Riva Road Annapolis, MD 21401	(410) 222-7884
Anne Arundel County Fire/Rescue Operations	8501 Veterans Highway Millersville, MD 21108	(410) 222-8322
Anne Arundel County Police Department Headquarters	8495 Veterans Highway Millersville, MD 21108	(410) 222-8050
Emergency Response Contractors		
Kalyani Environmental Solutions	1201 Bernard Drive Baltimore, MD 21223	(410) 536-4200

TABLE 5-2. Agencies and Contact Information for Reporting an Oil Release (continued).

Agency or Individual	Address	Phone Number(s)
Facility Contacts (Maryland Department of Transportation Maryland Aviation Administration)		
Paul L. Shank, P.E., C.M. Chief Engineer, Division of Planning and Engineering	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7061
Wayne S. Pennell, A.A.E. Chief, Division of BWI Marshall Operations & Maintenance	Terminal Building, Third Floor P.O. Box 8766 BWI Marshall Airport, MD 21240	Office: (410) 859-7335
Darline Terrell-Tyson Director, Office of Environmental Compliance and Sustainability	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7370
Mark Williams, Manager, Environmental Compliance Section Office of Planning and Environmental Compliance and Sustainability	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7448 Cell: (443) 250-1029
Evans Browne Environmental Analyst Environmental Compliance Section Office of Environmental Compliance and Sustainability	991 Corporate Boulevard Linthicum, MD 21090	Office: (410) 859-7806 Cell: (410) 215-1514
BWI Marshall Airport Operations	Terminal Building, Third Floor BWI Marshall Airport, MD 21240	Office: (410) 859-7018 or Office: (410) 859-7222
BWI Marshall Airport Rescue & Firefighting Consolidated Dispatch Center	1200 Mathison Way BWI Marshall Airport, MD 21240	Office: (410) 859-7222

5.5.3 Discharge Response Equipment

Discharge response equipment is located in areas that are considered high-risk for a spill (i.e., inside maintenance shops and fueling areas). An inventory of the spill response equipment should be taken and verified during the monthly inspection. Equipment available at BWI Marshall is provided in Table 5-3.

TABLE 5-3. Discharge Response Equipment Inventory.

Location	Equipment Type
Fire Training Facility	• Spill Kit*
Between mobile generators and Building 113 loading dock	• Spill Kit*
Field Maintenance Area	• Small and Large Oil Booms • Spill Kit*
Field Maintenance Building (Building 116)	• Spill Kit*
Field Maintenance Equipment Shed/Paint Shop (Building 117)	• Spill Kit*
Field Maintenance Equipment Shed (Building 118)	• Absorbent • Spill Kit*
Vehicle Maintenance Building (Building 121)	• Spill Kit*
Hazardous Waste Storage Area (Field Maintenance)	• Spill Kit
Hazardous Waste Storage Area (MAC Parking Lot)	• Spill Kit
Heavy Equipment Shop (Building 137)	• Spill Kit*
Mobile Refueler 533 Parked at Field Maintenance Between Buildings 116 and 118	• Spill Kit* •
Daily Parking Garage (Building 140)	• Absorbent
MAC Building (Building 172)	• Spill Kit*
Vehicle Maintenance Area	• 3” x 4’ Oil Booms • Spill Kit*
On Snow Melters stored within the SIDA at General Aviation	• Spill Kit*
Drum Storage Shed 137-ES-2D	• Spill Kit*
Lead/Acid Battery Storage Shed (Building 121)	• Spill Kit*
Tank 101-FLV-1A	• Spill Kit*
Tank 116-FM-4A	• Spill Kit*
Tank 123-PS-1A	• Spill Kit*
Tank 134-VM-1A	• Spill Kit*
Tank 140-DPG-1A	• Spill Kit*
Tank 155-KAUF-2A	• Spill Kit*
Tank 160-HPG-1A	• Spill Kit*
Tank A-1A	• Spill Kit*
Tank A-2A	• Spill Kit*

Location	Equipment Type
Tank C-3A	• Spill Kit*
Tank E-2A	• Spill Kit*
Tank E-3A	• Spill Kit*
Fire Training Facility	• Spill Kit*

* Spill kits typically contain the following items: overpack drums; booms; mats; pads; socks; gloves; disposal bags, ties, and labels; and emergency response guidebooks/instructions.

5.5.4 Waste Disposal

Waste disposal for materials generated during spills are addressed on a case-by-case basis in accordance with MDOT MAA's Work Instructions for Hazardous Waste Management, provided in Appendix P. As required by BWI Marshall's OOP, oils, used oil, waste oil, oily solids/sludges, or other oil contaminated substances generated by, or removed from operation are disposed of in a manner to prevent any such removed substances or runoff from entering or polluting the waters of the state. Such oil contaminated substances are collected and stored in proper containers, as prescribed in Appendix P.

6. SPILL REPORTING

Regulatory Requirement: *Unless the facility has submitted a response plan under 40 CFR §112.20, the SPCC Plan must provide information and procedures to enable a person reporting a discharge to relate information required under 40 CFR §112.7(a)(4).* **[40 CFR §112.7(a)(4)]**

Portions of the SPCC Plan should be organized to describe procedures that will be used when a discharge occurs in a way that will make them readily usable in an emergency, and should also include appropriate supporting material as appendices. **[40 CFR §112.7(a)(5)]**

It was determined that oil storage at BWI Marshall does not meet the criteria of causing substantial harm to the environment; thus, the facility is not required to prepare and submit a Facility Response Plan (FRP). Certification of the facility's applicability of the substantial harm criteria is provided in Section 1 of this SPCC Plan, with criteria applicability outlined in Section 18. Tenants that own and operate oil storage meeting the substantial harm criteria are required to have their own individual FRPs. These tenants are listed in Appendix F.

All individuals who either cause or discover a spill have been instructed to immediately contact BWI Airport Operations. The FRD will also be contacted as needed. All spills that occur at BWI Marshall will be recorded by either Airport Operations or FRD. Depending on the circumstances and/or size of the spill, the spill must also be reported to the appropriate Federal, State, and local agencies. Any quantity of oil released from the facility that reaches storm sewers or surface water should be reported to the appropriate agency contacts listed in Table 5-2.

6.1 REPORTING SPILLS TO STATE AGENCY (COMAR 26.10.01.03)

All releases of oil to the environment (i.e., to soil, groundwater, or surface water) must be reported to the MDE Emergency Response Division within two hours of detection and also documented in written reports to MDE. EC or the MDOT MAA tenant causing the spill will verbally notify MDE and report the following information:

- Time and location of discharge
- Type of facility involved
- Type and quantity of oil spilled
- Assistance required
- Name, address, and telephone number of person making report
- Other pertinent information as requested by MDE.

Additionally, within 10 days after completion of spill cleanup, EC will submit a written report of the discharge to MDE using the Spill Report Form provided in Appendix G. Copies of the submitted form will be maintained on-site with this SPCC Plan and uploaded to the MDOT MAA's Joint Environmental Tracking System (JETS). The completed written report will contain a narrative portion that includes the following:

- Date, time, and place of oil spill
- Amount and type of oil spilled
- A complete description of circumstances contributing to the spill
- A complete description of containment, removal, and clean-up operations, including disposal sites and costs of operations
- Procedures, methods, and precautions implemented to prevent recurrence
- Certification that the information provided is true and correct to the knowledge of the person signing the report
- Other information considered necessary or required by MDE for a complete description of the spill incident.

Minor oil spill incidents, as defined previously in Section 5, that are contained within buildings or are limited to paved surfaces with no potential pathways to sanitary sewers, navigable waters, and/or soil/groundwater do not need to be reported to MDE, provided that the appropriate response actions were taken to contain the spill and a record of the spill is maintained on-site. All spills must be reported to BWI Airport Operations**.**

6.2 REPORTING SPILLS TO FEDERAL AGENCY (40 CFR §112.4)

EC will also notify the EPA Region III Regional Administrator if the facility discharges a harmful quantity of more than 1,000 gallons of oil in a single discharge, or more than 42 gallons of oil in each of two discharge events within a 12-month period. Discharges that are reported to the National Response Center (i.e., "harmful quantity" of oil is discharged to navigable waters) are also required to be reported to EPA. Spill information must be reported to EPA within 60 days of the incident. The spill report form that is used to notify MDE can also be submitted to EPA.

BWI Marshall tenants and users are responsible for all containment, clean up, disposal, and reporting activities for spills and/or releases resulting from their activities.

6.3 SPILL HISTORY

All spill incidents at BWI Marshall, including those from BWI Marshall tenants, will be recorded in either the Airport Operations "Ops Spill Log" or FRD's "Incident Log." EC combines the logs generated from both Airport Operations, including tenants, and FRD to maintain a "master" spill log, which will be updated on a monthly basis. Spill history documentation must be maintained on-site with the SPCC Plan. Spills that have occurred at the facility in the last 5 years are provided in Appendix H.

7. DESCRIPTION OF POTENTIAL DISCHARGES

Regulatory Requirement: *Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, leakage, or any other equipment known to be a discharge source), include in the SPCC Plan a prediction of the direction, rate of flow, and total quantity of oil that could be discharged from the facility as a result of each type of major equipment failure.* **[40 CFR §112.7(b)]**

Experience indicates a reasonable potential for equipment failure that could result in a discharge of oil. Discharges of oil can potentially occur due to equipment malfunction or tank loading and unloading operations. In the event of a release, potential discharge directions, rates, and volumes for aboveground bulk oil storage containers, portable storage containers, and oil-filled operational equipment with capacities greater than 55 gallons are described in this section.

A discharge of oil from BWI Marshall could flow into either the Sawmill Creek Watershed, Stony Run Watershed, or Cabin Branch watershed. Table 7-1 provides an analysis of discharge scenarios for oil storage containers (55 gallons and larger) that are located within the following watersheds and their respective drainage areas:

- **Sawmill Creek Watershed**

  — ***Muddy Bridge Branch***—Tanks located by Pier C and E, and the MAC Building (Building 172). Transformers located at 28 Pump Station and 28 Deicing Pad.

  — ***Sawmill Creek Tributary***—Transformers located at the South Substation.

- **Stony Run Watershed**

  — ***Hawkins Branch***—Tanks located at the Fire Training Facility.

  — ***Kitten Branch***—Tanks located by Piers A,B, and C; the Field Lighting Vault (Building 101); the Kauffman Building (Building 155); the Central Utility Plant (Building 114); and the Hourly Parking Garage (Building 160). Transformers located at the North Substation, the ARFF (Building 105), the Glycol Facility, and the Triturator Facility.

  — ***Sachs Branch***—Tanks located at Cargo (Building 112), Field Maintenance (Building 116), Vehicle Maintenance (Buildings 121 and 134), the Old Paint Shop (Building 123), the Heavy Equipment Shop (Building 137), and the Daily Parking Garage (Building 140). Mobile refueler 533 typically parked adjacent to AST-FM-4A between Buildings 116 and Building 118. Transformers located at Old North Substation.

- **Cabin Branch Watershed**

  — Mobile Snow Melter Tanks (MELT-1 through MELT- 8) are stored in the SIDA at General Aviation.

The discharge scenarios within each of the above watersheds and drainage areas are depicted in Appendix N

TABLE 7-1. Potential Discharge Scenarios.

Potential Event	Volume Discharged	Spill Rate	Discharge Direction
Terminal Areas – Piers C and E (ASTs C-3A and E-1A through E-4A); Building 172 – MAC Building (ASTs 172-MAC-1A and Drums 172-MAC-1D)			
Complete failure of full tank	Maximum of 3,540 gallons	Instantaneous	Into nearby storm channels and into stormwater management basins, then to Muddy Bridge Branch drainage area, which contributes to Sawmill Creek. Sawmill Creek joins to Furnace Creek, then Curtis Creek, before entering the Patapsco River at Curtis Bay. Leaks from mobile refueler would drain through outside stormwater drains and oil/water separators prior to discharging to stormwater detention basins that discharge to Muddy Bridge.
Partial failure of full tank	Maximum of 3,540 gallons	Gradual to instantaneous	
Tank overfill	Maximum of 2,700 gallons	Gradual	
Pipe failure	Maximum of 3,540 gallons	Gradual to instantaneous	
Mobile refueler leak or failure (including fuel tanks of trucks)	Maximum of 2,700 gallons	Gradual to instantaneous	
Hose leak during mobile refueler unloading	1 to several gallons	Gradual	
Spill or leakage from 55-gallon drums stored inside buildings	Maximum of 55 gallons	Gradual to instantaneous	To building floor, otherwise into nearby storm channels to a stormwater management basin, then to Muddy Bridge Branch drainage area, which contributes to Sawmill Creek. Sawmill Creek joins to Furnace Creek, then Curtis Creek, before entering the Patapsco River at Curtis Bay.
Fire Training Facility (ASTs FTF-1A, FTF-2A, FTF-3A, FTF-4A and Drums 105-ARFF-1D)			
Complete failure of full tank	Maximum of 20,000 gallons	Instantaneous	Overland into a nearby forested area or a drainage channel next to a stone access road to the south, and then to the Hawkins Branch drainage area, which contributes to Stony Run. Stony Run drains directly into the Patapsco River.
Partial failure of full tank	Maximum of 20,000 gallons	Gradual to instantaneous	
Tank overfill	Maximum of 20,000 gallons	Gradual	
Pipe failure	Maximum of 20,000 gallons	Gradual to instantaneous	
Mobile refueler leak or failure (including fuel tanks of trucks)	Maximum of 20,000 gallons	Gradual to instantaneous	
Hose leak during mobile refueler loading or unloading	1 to several gallons	Gradual	
Terminal Areas – Piers A and B (ASTs A-1A, A-2A, B-1A, and C-4A); Field Lighting Vault (101-FLV-1A); Central Utility Plant (Portable AST 114-CUP-1M, Drums 114-CUP-1D and 114-CUP-2D); Building 155 – Kauffman Building (155-KAUF-2A and 155 KAUF-3A); Building 160 – Hourly Parking Garage (ASTs 160-HPG-1A and 160-HPG-2A)			
Complete failure of full tank	Maximum of 2,800 gallons	Instantaneous	To secondary containment (sump, building, or pavement). If containment fails, through stormwater drains and then oil/water separators to Kitten Branch drainage area, which contributes to Stony Run. Stony Run drains directly into the Patapsco River.
Partial failure of full tank	Maximum of 2,800 gallons	Gradual to instantaneous	
Tank overfill	Maximum of 2,700 gallons	Gradual to instantaneous	

Potential Event	Volume Discharged	Spill Rate	Discharge Direction
Pipe failure	Maximum of 2800 gallons	Gradual	Through storm drains and oil/water separators to Kitten Branch drainage area, which contributes to Stony Run. Stony Run drains directly into the Patapsco River.
Mobile refueler leak or failure (including fuel tanks of trucks)	Maximum of 2,700 gallons	Gradual to instantaneous	
Hose leak during mobile refueler unloading	1 to several gallons	Gradual	
Cargo Area (Portable ASTs MOBILE-1M through MOBILE-4M); Field Maintenance Area – Buildings 116, 118, 121, 123, 134, and 137 (ASTs 116-FM-2A, 116-FM-4A, 121-VM-1A through 121-VM-8A, 123-PS-1A, 134-VM-1A, and 137-ES-6A through 137-ES-11A, Drums 137-ES-1D through 137-ES-3D, 118-ES-1D, and 121-VM-9D); Daily Parking Garage (AST 140-DPG-1A)			
Complete failure of full tank	Maximum of 4,000 gallons	Instantaneous	Building 121: through floor drains to closed sump or onto asphalt towards Vortechs® stormwater treatment system that discharge to the Sachs Branch drainage area, which contributes to Kitten Branch, a larger tributary to Stony Run. Stony Run drains directly into the Patapsco River. Building, 116, Building 118, Building 123, Building 137, and Daily Parking Garage: onto asphalt towards oil-water separators.
Partial failure of full tank	Maximum of 4,000 gallons	Gradual to instantaneous	
Tank overfill	Maximum of 2,700 gallons	Gradual	
Pipe failure	Maximum of 4,000 gallons	Gradual to instantaneous	
Mobile refueler leak or failure (including fuel tanks of trucks)	Maximum of 2,700 gallons	Gradual to instantaneous	
Hose leak during mobile refueler loading	1 to several gallons	Gradual	
Spill or leakage from 275-gal ASTs stored indoors	Maximum of 275 gallons	Gradual to instantaneous	
Mobile Refueler by Field Maintenance Area (533)			
Mobile refueler leak or failure (including fuel tanks of truck)	Maximum of 2,700 gallons	Gradual to instantaneous	Onto asphalt towards oil/water separator that discharges to the Sachs Branch drainage area, which contributes to Kitten Branch, a larger tributary to Stony Run. Stony Run drains directly into the Patapsco River.
Hose leak during mobile refueler unloading	1 to several gallons	Gradual	

TABLE 7-1. Potential Discharge Scenarios (continued).

Potential Event	Volume Discharged	Spill Rate	Discharge Direction
Mobile Snow Melter Units (MELT-1 through MELT-8) - Stored within the SIDA at General Aviation.			
Complete failure of full tank	Maximum of 1,500 gallons	Instantaneous	Varies. Tanks can be towed to any location throughout the BWI Campus as needed. During the off-season, Snow Melter tanks are stored in the Long Term B parking Lot where overland flow is to nearby SWM facilities to the Cabin Branch Watershed.
Partial failure of full tank	Maximum of 1,500 gallons	Gradual to instantaneous	
Transformers* at Old North Substation (ONS-1T and ONS-2T)			
Complete failure of transformer	Maximum of 1,545 gallons	Instantaneous	Ground surface to storm drains that discharge to Sachs Branch drainage area, which contributes to Kitten Branch before draining to Stony Run. Stony Run drains directly into the Patapsco River.
Partial failure of transformer	Maximum of 1,545 gallons	Gradual to instantaneous	
Transformers* at South Substation (SS-1T, SS-2T, and SS-3T)			
Complete failure of transformer	Maximum of 1,582 gallons	Instantaneous	Ground surface to storm drains that discharge to Sawmill Creek. Sawmill Creek joins to Furnace Creek, then Curtis Creek, before entering the Patapsco River at Curtis Bay.
Partial failure of transformer	Maximum of 1,582 gallons	Gradual to instantaneous	
Transformers* at North Main Substation (NS-1T, NS-2T, and NS-3T); Building 105 – ARFF (105-ARFF-1T and 105-ARFF-1D);Glycol Facility (GLY-1T); Triturator Facility (TRI-1T)			
Complete failure of transformer	Maximum of 1,582 gallons	Instantaneous	Ground surface to storm drains that discharge to Kitten Branch drainage area, which contributes to Stony Run. Stony Run drains directly into the Patapsco River.
Partial failure of transformer	Maximum of 1,582 gallons	Gradual to instantaneous	
Transformers* at 28 Pump Station and 28 Deicing Pad (28PS-1T and 28DP-1T)			
Complete failure of transformer	Maximum of 192 gallons	Instantaneous	Ground surface to storm drains that discharge to Muddy Bridge Branch drainage area, which contributes to Sawmill Creek. Sawmill Creek joins to Furnace Creek, then Curtis Creek, before entering the Patapsco River at Curtis Bay.
Partial failure of transformer	Maximum of 192 gallons	Gradual to instantaneous	
Electrical Current Regulators at Field Lighting Vault (101-FLV-1R through 101-FLV-15R)			
Complete failure of hydraulic system	Maximum of 85 gallons	Instantaneous	To building interior.
Partial failure of hydraulic system	Maximum of 85 gallons	Gradual to instantaneous	
Hydraulic Elevator Sumps, Various Locations			
Complete failure of hydraulic system	Maximum of 160 gallons	Instantaneous	To building interior.
Partial failure of hydraulic system	Maximum of 160 gallons	Gradual to instantaneous	

* Addition or removal of oil from transformers is not routinely performed; thus, these operations are not included in this analysis.
NPDES = National Pollutant Discharge Elimination System; SWM = Stormwater management.

An overflow of the tanks or equipment could potentially occur during tank loading and unloading operations. All loading and unloading operations are continually manned, as continuous on-site monitoring during such operations will allow an immediate response to releases and minimize the amount of oil that would be released. Additionally, the majority of tanks at BWI Marshall are equipped with tank gauges to monitor liquid levels in the tanks during refueling. Procedures that are followed during loading and unloading operations are further discussed in Section 12.

Leakage from containers and oil-containing mechanical equipment can also potentially occur from worn out or corroded seals, valves, fittings, or walls; therefore, visual inspections on ASTs and associated piping are conducted to assess integrity and identify visible corrosion, as discussed in Section 9.

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8. CONTAINMENT AND DIVERSIONARY STRUCTURES

Regulatory Requirement: *Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge from occurring. 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, will not escape the containment system prior to cleanup. In determining the method, design, and capacity for secondary containment, only the typical failure mode needs to be addressed and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, one of the prevention systems listed in 40 CFR §112.7(c)(1) or its equivalent must be used. Dikes, berms, or retaining walls must be sufficiently impervious to contain oil.* **[40 CFR §112.7(c)]**

Regulatory Requirement: *If the installation of containment and/or diversionary structures or equipment to prevent a discharge is not practicable, the SPCC Plan must clearly explain why such measures are not practicable. Periodic integrity testing of bulk storage containers, in addition to periodic integrity and leak testing of the valves and piping, should be conducted. Unless the facility has submitted a response plan under 40 CFR §112.20, the SPCC Plan should provide an oil spill contingency plan and a written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.* **[40 CFR §112.7(d)]**

8.1 CONTAINMENT OF STORAGE CONTAINERS

Methods of secondary containment at BWI Marshall include a combination of structures (e.g., built-in secondary containment, containment pallets), drainage systems (e.g., oil/water separators), and land-based spill response (e.g., drain covers, sorbent materials) to prevent oil from reaching navigable waters and adjoining shorelines. The following methods of secondary containment are used for storage containers at BWI Marshall:

- ***Double-Wall Tank Construction***—The bulk storage tanks that have double-wall designs with a secondary shell are listed in Table 5-1. All double-wall ASTs are UL listed. The interstice of a double-walled tank will be checked for liquids during the monthly inspection to test the integrity of the tank. Several tanks are also equipped with an automated leak detection system that monitors the interstitial space of the tank at all times.

- ***Secondary Containment Vessels***—The single-walled ASTs that are located outdoors are encased within steel containment vessels fitted with drain valves for adequate containment to hold the contents of each tank.

- ***Indoor Containment and Containment Pallets***—Most of the single-walled ASTs at BWI Marshall, as well as the electrical current regulators, hydraulic elevators, and vehicle lifts, are located indoors and within the containment of buildings. Small quantity storage containers that are stored indoors typically have curbs surrounding the perimeter of the storage areas to prevent the flow of oil into adjacent building areas under emergency conditions; containers that are not stored within curbs are placed on spill containment pallets, which are capable of effectively containing the volume of any single 55-gallon

drum. Only compatible materials are stored within the same storage areas. Unopened drums of oil are stored in the warehouse facility (Building 172) in areas designated for storing hazardous materials. Only one drum of oil or lubricant material is used at a time in the heavy equipment shop (Building 137).

— The single-walled 121-VM-8A located indoors at the Vehicle Maintenance Shop (Building 121) is currently maintained within adequate secondary containment due to the location of the tank; there are no floor drains discharging to stormwater in the immediate vicinity of the tank, as the floor drains in Building 121 discharge to a closed sump. Routine inspections are made of this AST and emergency spill kits that include appropriate absorbent material are available to address spills or leaks immediately upon detection.

- ***Spill Kits***—Spill kits that include absorbent material, booms, and other portable barriers are located inside the various maintenance shops (Table 5-3 provides the locations) and are stored near oil storage areas. The spill kits are located in close proximity to oil storage areas for rapid deployment in the occurrence of a spill. Spill kits are also located outdoors by the fuel pumps to allow for prompt deployment in the occurrence of a discharge resulting from tank overfills, leaking pipes/valves, etc. The mobile refueler and mobile snow melters are also equipped with portable spill kits at all times.

- ***Drainage System***—Drainage systems for several of the tanks located indoors are engineered to direct oil that may be discharged from the indoor bulk and drum storage areas into oil/water separators. Drainage from outdoor areas is also directed to oil/water separators. The mobile refueler (533) containing diesel fuel is located at the Field Maintenance Facility, between Buildings 116 and 118, and is typically parked on a paved area that drains to an oil/water separator serviced and inspected by the Maryland Environmental Service. Spill absorbent kits and drain protector seals are also stored in the vicinity of the truck for immediate access in the occurrence of a spill. Drain protector safety seals are also placed over stormwater drains, grates, and manholes to prevent migration of oil into the stormwater sewers.

- ***Oil/Water Separators***—The oil/water separators located throughout the facility are designed to treat oil that may accumulate from their respective drainage areas. Many are equipped with an audible alarm. Best Management Practices, as outlined in the facility's Storm Water Pollution Prevention Plan, are utilized to minimize the flow of solids or other debris entering the oil/water separator. The oil/water separators are inspected monthly, quarterly, and annually by Maryland Environmental Service, which includes checking the water level and bottom sludge/floating oils within the separator.

- ***Active Containment***—Measures that require deployment or specific actions prior to the start of an activity involving the handling of oil, or in reaction to a discharge, are implemented at the facility. Such active containment measures, also known as spill countermeasures, include closing valves prior to filling activities. These measures will be utilized when a secondary containment structure for a tank is not practicable or if the tank is not readily accessible (e.g., oil-filled operational equipment). An alternative is for

owners or operators of oil-filled operational equipment to prepare an oil spill contingency plan or written commitment of manpower, equipment, and materials in place of providing secondary containment.

- Oil-filled operational equipment (i.e., transformers, hydraulic elevators, and regulators) or motive power containers (i.e., snow removal equipment) at BWI Marshall do not require "passive" measures of secondary containment (e.g., double-walled tank or concrete containment dike); however, certain "active" measures of secondary containment that ensure immediate response of a spill or release from this equipment are sufficient. Examples of active measures provided by EPA guidance include, but are not limited to, the following:

  - Placing a storm drain cover over a drain to contain a potential spill in an area where transfers occur, *prior* to transfer activities

  - Placing a storm drain cover over a drain in response to a discharge, before the oil reaches the drain

  - Using spill kits in the event of a discharge

  - Use of spill response capability or spill response teams in the event of a discharge.

- The hydraulic elevators at BWI Marshall are either equipped with electric pumps or 5-gallon spill buckets for additional containment.

8.2 DISCHARGE PREVENTION AT FUEL DELIVERY LOCATIONS

The 2,700-gallon mobile refueler (533) that is owned and operated by MDOT MAA is used to provide diesel fuel to the airport's emergency generators (day tanks and sub-base tanks), USTs (003, 004, 012, and 063), and heavy-duty snow removal equipment. Fuel transfers from the mobile refueler occur at the location of each tank or piece of equipment. The mobile refueler is equipped with emergency shut-off, fire extinguishers, a spill kit, and pelletized absorbent material at all times so that the fuel delivery driver can promptly respond in the occurrence of a spill or leak. The mobile refueler truck has been retrofitted to provide both pressure and gravity type fuel deliveries depending on tank type and material.

A Maryland Department of General Services contractor currently refills MDOT MAA's mobile refueler and AST 116-FM-4A equipped with a loading rack. Fuel delivery to MDOT MAA's mobile refueler occurs at the lot where MDOT MAA's truck is normally parked (between Buildings 116 and 118). The Department of General Services contractor will also refuel heating oil USTs (006, 007, 008, and 010), AST 123-PS-1A, and AST 134-VM-1A. Contractors are responsible for following proper fuel delivery procedures at BWI Marshall, which are consistent with Code of Maryland Regulations (COMAR) 26.10.01.16 and 26.10.01.17. Any oil discharge from the delivery trucks during fuel delivery will be addressed by the personnel or contractor delivering the fuel.

No stormwater inlets are located within the Field Maintenance Facility to receive drainage from the mobile refueler area. Two 20,000-gallon oil/water separators provide secondary containment for fuel transfers that occur in this parking lot. Drainage from this area flows by gravity to the oil-water separators that are located downhill from the parking lot area and in front of Building 121. These would capture and retain any significant loss of oil from the mobile refueler. Section 16.9 provides additional information pertaining to mobile and portable oil storage tanks.

MDOT MAA's fuel delivery drivers receive the appropriate training for discharge prevention and spill response, as discussed in Section 10.1. The mobile refuelers are also equipped with emergency shut-off, fire extinguishers, and spill kits at all times so that the fuel delivery drivers can promptly respond in the occurrence of a spill or leak. Maintenance personnel are present during all fuel transfers to monitor loading and unloading operations. Loading and unloading procedures that are followed by MDOT MAA personnel to prevent potential discharges are further discussed in Section 12. Work Instructions for BWI Fuel Transfer Operations for Maintenance are followed to prevent discharge during fuel transfers at BWI Marshall. These procedures are provided in Appendix O. Discharge prevention procedures include placing drain blocking devices, as necessary, prior to fueling and manually gauging tanks before, during and after fueling.

8.3 SPILL CONTINGENCY

BWI Marshall is not required to submit an FRP as the facility does not meet the criteria of causing substantial harm to the environment (Section 18); consequently, this SPCC Plan serves as a written commitment of manpower, equipment, and materials for an efficient response in the occurrence of an oil release. Additionally, this SPCC Plan includes the following components of an oil spill contingency plan as required by 40 CFR §109.5:

- Definition of the responsible parties and contacts who would be involved in the planning or directing of oil spill response activities (Section 5.5.2)

- Establishment of spill notification and response procedures (Section 5.5.1)

- Provisions to ensure full-resource capability and commitment of resources during spill response (Section 5.5.2).

9. INSPECTIONS, TESTS, AND RECORDKEEPING

Regulatory Requirement: *The owner or operator of the facility must conduct inspections and tests required by 40 CFR §112 in accordance with written procedures that the owner/operator or certifying engineer develop for the facility. These written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspection, must be kept with the SPCC Plan for a period of 3 years. Records of inspections and tests kept under usual and customary business practices will suffice.* **[40 CFR §112.7(e)]**

Regularly scheduled inspections and testing by qualified personnel are critical elements of discharge prevention and 40 CFR 112.8(c)(6) establishes that inspection and testing requirements for aboveground bulk storage containers should be performed in accordance with industry standards. MDOT MAA has selected the Steel Tank Institute (STI) *Standard for the Inspection of Aboveground Storage Tanks*, SP001, Fifth Edition (STI SP001 Standard) as a basis for developing an inspection and testing schedule for the ASTs at BWI Marshall.

The STI SP001 Standard provides criteria that is used to determine testing types and frequencies for existing ASTs and are based on factors including the tank size, configuration, and design (e.g., shop-fabricated, double-walled, etc.). These factors classify tanks into one of three categories per the STI SP001 Standard, where each type of container has an established inspection schedule. The STI category for each tank (where applicable) is included in Appendix C. Minimum frequencies and testing types are provided in Table 9-1 for shop-fabricated ASTs and portable containers.

TABLE 9-1. STI SP001 Standard Inspection Schedule.

AST Type and Size (U.S. gallons)		Category 1	Category 2			Category 3		
Shop-Fabricated ASTs	0 – 1,100	• P	• P			• P • E & L (10)		
	1,101 – 5,000	• P	• P • E & L (10)			• P • E & L (5) • I (10)	OR	• P • L (2) • E (5)
	5,001 – 30,000	• P • E (20)	• P • E (10) • I (20)	OR	• P • E (5) • L (10)	• P • E & L (5) • I (10)	OR	• P • L (2) • E (5)
	30,001 – 50,000	• P • E (20)	• P • E & L (5) • I (15)			• P • E & L (5) • I (10)		
Portable Containers		• P	• P			• P*		

LEGEND

P = Periodic inspection (routine)
E = Formal external inspection by Certified Inspector
I = Formal Internal Inspection by Certified Inspector
L = Leak test by owner or owner's designee
( ) = Indicates maximum inspection interval in years.

Category 1 = ASTs with spill control and with Continuous Release Detection Method (CRDM)
Category 2 = ASTs with spill control and without CRDM
Category 3 = ASTs without spill control and without CRDM

* Owners of Category 3 portable containers must either discontinue use of container or have the container tested and recertified by the Department of Transportation (every 7 years for plastic containers, every 12 years for steel containers, and every 17 years for stainless steel containers).

9.1 PERIODIC VISUAL INSPECTIONS

9.1.1 Aboveground Storage Tanks and Portable Containers

Oil storage containers must be regularly inspected in accordance with established standards. The type of inspection program and its scope is determined based on-site specific conditions (e.g., size, configuration, and construction of containers) and the application of good engineering practices. All ASTs and portable containers at BWI Marshall are considered either Category 1 or 2 Tanks[8] under the STI SP001 Standard, which require periodic inspections that can be performed by properly trained facility personnel (Environmental Compliance Section or designated inspector). The inspector must be knowledgeable of the storage facility operations, the type and configuration of the AST and its associated components, and characteristics of the liquid stored in the AST. Inspections must be performed without suspending AST operations or removing the AST from service.

Periodic visual inspections are performed monthly and annually at BWI Marshall and are documented utilizing the checklists provided in Appendices I-1 and I-2, respectively. The monthly periodic visual inspection checklist is based on the recommended inspection parameters provided by the STI SP001 Standard. Portable generator monthly visual inspections are conducted when the generators are parked in designated areas in the SIDA. These locations include in front of the Central Utility Plant Building #114, and on the SIDA in front of Cargo building #113. Monthly visual inspection may not occur during periods of operation when the generators are deployed during emergency power situations and continuously operating. When deployed, OFM's generator contractor performs preventive maintenance on the generators before use and they are frequently monitored during periods of ongoing operation. At a minimum, a discharge from this equipment would be observed from deployed generators during refueling of the generators, which can take place as frequently as every 8 hours for the smaller generators.

The annual periodic visual inspection checklist is intended to supplement the monthly inspections and includes inspection items that are not observed monthly. The annual checklist also incorporates site-specific inspection recommendations provided in the STI SP001 Standard. The monthly and annual checklists were developed as exception-based reporting tools based on the layout and design of the oil storage containers at BWI Marshall. Certain parameters in the STI SP001 checklist were not included, as they were determined not to be applicable at the facility. Any changes in facility design, construction, operation, or maintenance will prompt a review of the SPCC Plan, at which time the inspection parameters will be reviewed to determine whether the checklist(s) should be revised accordingly.

The monthly and annual visual inspections will be used to observe general conditions of the primary and secondary (if applicable) tanks; tank supports, anchors, foundation and external supports; normal and emergency vents; tank appurtenances; tank gauges and alarms; release prevention barriers; spill control systems; oil/water accumulation within the secondary containment; and availability of discharge response equipment. The tanks must be viewed in

[8] Category 1 Tanks are provided with: (1) spill control, which is a means of preventing a release of liquid to the environment, and (2) Continuous Release Detection Method (CRDM), which is a means of detecting a release of liquid through inherent design.

sufficient light from above and all sides. All tanks sit on impervious surfaces, so the tank bottoms are not required to be visible.

9.1.2 Emergency Generators

Emergency generators are inspected on a monthly basis by Office of Facilities Maintenance generator contractor to check the fuel volume of the associated fuel tanks and perform a visual inspection of the generators for malfunctions (checklist provided in Appendix J-1); however, MDOT MAA personnel or their designee currently include the associated fuel tanks for the emergency generators in the monthly and annual inspections provided in Appendices I-1 and I-2.

9.1.3 Oil-Filled Operational Equipment

OFOE are not required to follow specific requirements that pertain to bulk storage containers (e.g., secondary containment, overfill alarms, etc.) if they are qualifying OFOE (refer to Section 5.3.4 for qualified OFOE requirements). The OFOE at BWI Marshall, which include transformers and regulators, are included under a separate section on the monthly checklist provided in Appendix I-1. The hydraulic elevators are not included in this inspection, as they are inspected on a monthly basis by Office of Facilities Maintenance elevator contractor. The inspection checklist utilized for the elevators is provided in Appendix J-2.

9.1.4 Oil Operations

All aspects of oil operations at BWI Marshall are regularly supervised and checked. Any deficiencies in operational procedure and any actual or potential defects or weaknesses in the operating system are identified and corrected to prevent oil spills.

9.2 FORMAL EXTERNAL INSPECTIONS

As indicated in Table 9-1, formal external inspections in addition to periodic visual inspections must be performed on Category 1 Tanks that exceed 5,000 gallons, Category 2 Tanks that exceed 1,000 gallons, or all Category 3 Tanks. Formal external inspections must be performed by a STI SP001 Certified Inspector and include an assessment of the condition of the AST and determination of its suitability for continued service without entry into the AST interior. The applicable tanks at BWI Marshall that require formal external inspections are provided in Table 9-2.

TABLE 9-2. Formal External Inspection Schedule for Applicable Tanks.

Tank ID	Capacity (gallons)	Category	Contents	Year Installed	Frequency of Formal External Inspection	Next Inspection
FTF-2A	10,000	1	Jet A Fuel	2006	20 years	2026
FTF-3A	20,000	1	Jet A Fuel / Firefighting Foam / Water Mixture	2008	20 years	2028
FTF-4A	20,000	1	Jet A Fuel / Firefighting Foam / Water Mixture	2008	20 years	2028

9.3 FORMAL INTERNAL INSPECTIONS

Formal internal inspections can be used to meet the inspection requirements of SP001 in combination with other formal inspections for Category 3 Tanks greater than 1,100 gallons or Category 2 Tanks greater than 5,000 gallons. A formal internal inspection, conducted by a STI SP001 Certified Inspector, assesses both the internal and external conditions of the AST and determines its suitability for continued service. Note that formal internal inspections include the inspection requirements of formal external inspection and thus can satisfy the requirements of formal external inspections. Formal internal inspections are not required on AST systems at BWI Marshall.

9.4 LEAK TESTING

Leak testing is not required for AST systems at BWI Marshall.

9.5 TESTING REQUIREMENTS FOR NEW AST SYSTEMS

New single-walled and double-walled AST systems manufactured for the storage of stable, flammable, and combustible liquids at normal atmospheric pressure must be tested upon arrival to BWI Marshall according to manufacturer's recommendations. All testing shall be in compliance with National Fire Protection Association 30 21.5.2. Test records have been maintained by the MDOT MAA Office of Environmental Compliance and Sustainability (OECS) for all new MDOT MAA owned tank installations since January 1, 2012. Tightness testing records are uploaded to JETS file repository for each tank asset and will be kept for a minimum of 5 years.

9.6 RECORDKEEPING

The inspector is required to check the status of each item included on an inspection checklist and indicate on the checklist whether an item's condition is acceptable. If the status of a particular item is unacceptable, the appropriate and complete information is recorded, including the corrective actions to be taken. Completed inspection records are uploaded to the MDOT MAA JETS website and the hard copies of the inspections are maintained with this SPCC Plan for a period of 3 years. Records resulting from the monitoring activities required by BWI Marshall's OOP are retained for a minimum of 3 years. All other maintenance records are managed through the JETS issue tracker feature.

10. EMPLOYEE TRAINING

Regulatory Requirement: *At a minimum, oil-handling personnel must be trained 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 this SPCC Plan.* **[40 CFR §112.7(f)(1)]**

A person who is accountable for discharge prevention and who reports to facility management should be designated. **[40 CFR §112.7(f)(2)]**

Discharge prevention briefings should be scheduled and conducted for the facility's oil-handling personnel at least once a year to ensure adequate understanding of this SPCC Plan. Such briefings must highlight and describe known discharges or failures, malfunctioning components, and any recently developed precautionary measures. **[40 CFR §112.7(f)(3)]**

10.1 OIL-HANDLING PERSONNEL TRAINING

MDOT MAA personnel who have duties that may involve oil-handling receive training for general oil spill prevention and basic spill response. This training is provided during the annual environmental awareness training. MDOT MAA's OECS is responsible for providing the annual environmental awareness training that includes the following topics:

- Awareness of SPCC Plan, including procedures and requirements outlined within the SPCC Plan
- Potential sources of oil spills
- Basic spill prevention and response procedures
- Spill reporting procedures.

BWI Marshall fuel delivery drivers are required to receive additional Class B Commercial Driver's License (CDL) training with tanker and hazardous material endorsements. CDL training is recertified every 5 years. Specific oil-handling procedures are discussed periodically at MDOT MAA's "toolbox" safety meetings, which are attended by MDOT MAA maintenance personnel and fuel delivery drivers whose responsibilities involve oil-handling on a daily or more frequent basis. MDOT MAA supervisors whose employees handle oil are responsible for ensuring that their employees receive the appropriate training.

Records of attendance to the annual environmental awareness training are uploaded to the JETS website. Records of trainings provided to MDOT MAA personnel are recorded in Appendix K. Personnel training records are maintained using MDOT MAA's intranet-based learning management system.

Tenants at BWI Marshall are responsible for providing training to their personnel. Where tanks are owned and operated by the tenants, their designated Compliance Officer will conduct the training and maintain records of spill prevention briefings on file at the facility.

10.2 UST OPERATOR CERTIFICATION PROGRAM AND TRAINING

Regulatory Requirement: *A regulated substance storage facility with one or more UST systems is required to train and certify UST operators.* **[COMAR 26.10.16]**

Facilities that store motor fuel, used oil, and/or hazardous substances in UST systems, as well as facilities that have bulk storage or operate emergency generator USTs, are required to designate and identify individuals to serve as Class A, B, and C operator(s) for each facility by August 8, 2012. As discussed in Section 14.3, operator training must be provided by companies approved by MDE's Oil Control Program as part of the UST Operator Certification Program; MDOT MAA currently provides training for Class C operators. The following topics are covered during this training:

- Hazards of petroleum (personnel health and safety; environment; etc.)
- Fuel dispensers and associated components
- Emergency shut off
- Emergency scenarios and response
- Tank monitors and alarms.

A Class C operator is an employee that is usually the first to respond to an emergency; consequently, they must be trained to properly monitor dispensing of regulated substances, as well as how to take action in response to emergencies or alarms caused by spills or releases from UST systems. The initial Level C Operator Training for BWI Marshall occurred on June 4, 2012. Additional training has occurred to accommodate personnel changes. Dates for the training are listed in the UST – Site Operator Handbook. MDOT MAAOECS personnel attend Class A/B training provided by a third party.

10.3 EMERGENCY RESPONSE TRAINING

FRD personnel receive oil spill emergency response through a 60-hour Hazardous Materials Technician Course. These personnel are the core response team for BWI Marshall. The FRD is responsible for ensuring that these individuals receive appropriate refresher courses and replacement personnel are equivalently trained. The FRD maintains a training record to include date, participants, and contents of training.

11. SITE SECURITY

Regulatory Requirement: *The SPCC Plan must describe how access to oil handling, processing, and storage areas are secured and controlled; how master flow and drain valves are secured; how unauthorized access to starter controls on oil pumps is prevented; and how out-of-service and loading/unloading connections of oil pipelines are secured. The SPCC Plan must also address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.* **[40 CFR §112.7(g)]**

The majority of oil storage locations at BWI Marshall are located within a fenced perimeter known as the SIDA. Access to these areas is monitored by guard stations. All personnel accessing secured areas are required to undergo a security application process to obtain security badges from the MDOT MAA security office. Personnel are required to wear security badges whenever on-site.

Oil storage locations that are not within the perimeter fence at BWI Marshall are located in areas that are locked and under frequent surveillance during normal shift hours. These areas remain locked and are periodically monitored during afterhours, weekends, and holidays. Visitors within the secured areas must be escorted by badged personnel and must remain with their escort at all times. Additionally, the Maryland Transportation Authority Police patrol all areas. Specific security and access for each oil storage location at BWI Marshall is described in the following sections.

11.1 FENCING, LIGHTING, AND ACCESS

- **Aboveground Storage Tanks**

  — ***Fire Training Facility***—The Fire Training Facility is surrounded by a security fence. Access gates to the facility are kept locked when the area is not attended. Outdoor facility lighting is provided for this area.

  — ***Field Maintenance Area, Buildings 116, 118, 121, 123, 134, and 137***—Bulk oil storage containers stored in the Field Maintenance Area are located indoors at Buildings 121 and 137. Access to these buildings is limited to authorized personnel, and the buildings are locked when unattended. Separate security lighting is not required for these containers due to their indoor locations. Five tanks in the Field Maintenance area are located outdoors (ASTs 116-FM-2A, 116-FM-4A, and 134-VM-1A, 123-PS-1A). The Field Maintenance Area is within SIDA. Outdoor facility lighting is provided for this area.

  — ***Terminal Areas (Piers A, B, C, and E) and Field Lighting Vault***—ASTs stored in terminal areas are located within the airport security perimeter. Access to these tanks is limited to authorized personnel and a security badge is required for access to these areas. These ASTs are located in areas that are provided with adequate lighting.

  — ***Daily Parking Garage, Building 140***—The tank and generator are located behind a 10-foot-high concrete wall located just west of the Daily Parking garage with single

access to the tank through an iron gate. Access to the tank is thus limited to authorized personnel. Street lights are provided near the generator.

— ***Hourly Parking Garage, Building 160***—AST 160-HPG-1A is located on the first floor of the garage in the Emergency Generator Room, across from the 1G parking area. Access to the room requires access through a locked gate area used for storing maintenance and custodial supplies. AST 160-HPG-2A is located outside of the garage by the Terminal Loop and beneath the skywalk to Pier D. Lights from the terminal and garage illuminate these storage areas.

— ***Kauffman Building, Building 155***—The doors to the generators are locked. Lights from the building illuminate the area around the generators.

— ***MAC Building, Building 172***—The emergency generator (172-MAC-1A) is located by the radio tower that is within a locked gate and requires a security badge for access. The drums (172-MAC-1D) are located inside Building 172, which is locked when the building is unattended. Access to these containers is thus limited to authorized personnel. Separate security lighting is not required for the drums due to their indoor location.

- **Portable Storage Tanks**

— ***Mobile Refueler***—The mobile refueler (533) owned and operated by MDOT MAA is typically parked at the Field Maintenance Facility adjacent to AST 116-FM-4A, which is secured with an 8-foot-high fence and gates. The area is also under frequent surveillance during normal shift hours, and remains locked during after hours, weekends, and holidays.

— ***Portable Generators—***Portable emergency generator 114-CUP-1M is housed in a truck located outside Building 114; the truck requires keys for access. The three portable emergency generators located in the cargo area (MOBILE-1M, MOBILE-2M, MOBILE-3M, and MOBILE-4M) are located within a secured area on the airfield side between Buildings 112 and 113.

— ***Snow Melters—***Snow melter trailers (MELT 1 through 8) are located on the General Aviation area and are located within a secured, lighted area on the airfield when not in use.

- **Oil-Filled Operational Equipment**

  — ***Transformers***—The transformers located at the North, Old North, and South substations are secured behind 8-foot high fencing with locked gates. Nearby street lights or building lights provide illumination for the transformer areas. The remaining transformers are located within the secured perimeter fence at BWI Marshall.

  — ***Hydraulic Elevators***—Hydraulic elevators are located inside buildings that are locked when unattended. Access to the hydraulic mechanisms and oil sumps is limited to authorized personnel.

  — ***Vehicle Lifts***—Vehicle lifts are located inside buildings that are locked when unattended. Access to the hydraulic mechanisms and oil sumps is limited to authorized personnel.

  — ***Regulators***—The electrical current regulators are located in the Field Lighting Vault (Building 101). The Field Lighting Vault is closed and locked when not in use or unattended. Access to the hydraulic mechanisms and oil sumps is limited to authorized personnel.

11.2 OTHER SECURITY MEASURES

Additional oil control security measures utilized at BWI Marshall include the following:

- ***Master Flow and Drain Valves***—Tank drain valves are kept secure by either plugging/capping or locking, except when tanks are being accessed during loading and unloading operations.

- ***Pump Starter Controls***—All oil storage tanks utilize pumps to move liquids into tanks. The starter controls for these pumps are located in areas accessible only to authorized personnel.

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12. LOADING AND UNLOADING RACK OPERATIONS

Regulatory Requirement: *Where loading/unloading rack 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/unloading racks. A containment must be designed to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.* **[40 CFR §112.7(h)(1)]**

Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in the area adjacent to a loading/unloading rack to prevent vehicles from departing prior to complete disconnection of flexible or fixed oil transfer lines. **[40 CFR §112.7(h)(2)]**

Prior to the filling and departure of any tank car or tank truck, closely inspect for discharges at 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. **[40 CFR §112.7(h)(3)]**

12.1 PROCEDURES

All bulk oil transfers are attended by MDOT MAA personnel to prevent or respond to potential overfilling or spills, and to ensure compliance with BWI Marshall's procedures for fuel loading and unloading. Fuel transfers must follow the BWI Fuel Transfer Operations for Maintenance work instructions, provided in Appendix O. Fuel Transfer/Delivery Records and Checklists (one for the mobile refueler and loading rack and one for all other tanks), provided in Appendix L, are utilized at BWI Marshall for the following fuel transfers:

- Fuel transfer from MDOT MAA's mobile refueler to an AST or UST
- Fuel transfer from MDOT MAA's mobile refueler to equipment (e.g., loader, snow removal equipment, etc.).

A list of tanks (ASTs and USTs) that receive fuel from the MDOT MAA mobile refueler are recorded on the Fuel Delivery Record and Checklist. The Fuel Delivery Record and Checklist is used to record fuel levels before and after filling in the tank or equipment that is receiving fuel, as required by BWI Marshall's OOP (Section 14.1). A "Fuel Unloading Checklist" is also included as part of the form to ensure that the proper fuel transfer procedures are followed. Prior to filling, MDOT MAA personnel makes a determination regarding fuel delivery type (pressure or gravity). The driver also inspects the mobile refueler for evidence of dents, cuts, gouges, corroded/abraded areas, leakage, or any other conditions that might render it unsafe for hazardous material service. Personnel also inspect the area and equipment, chock the truck wheels, properly ground equipment, and place necessary drain blocking devices. Direct communication between the person monitoring the tank level and the person at the refueling dispenser is also utilized to prevent overfilling tanks. For tanks where the dispenser is located by the tank gauge, only one person (typically the fuel delivery driver) is required to be present during the transfer. After properly disconnecting all equipment, the area must be inspected again.

BWI Marshall's OOP includes additional special conditions for MDOT MAA's mobile refueler that pertain to fuel deliveries and transfers. Refer to Section 14.1 for a summary of permit conditions.

12.2 SECONDARY CONTAINMENT FOR VEHICLES

The requirements of 40 CFR 112.7(h)(1) pertain to areas designated as loading/unloading racks, which are defined by the SPCC Rule as a fixed structure (e.g., platform) that is necessary for loading or unloading a mobile refueler. BWI Marshall has one loading rack that was installed in the outside of Building 116 (116-FM-4A) in 2014.

The Fuel Delivery Record and Checklist discussed in the previous section also ensures that the proper loading/unloading procedures are utilized to prevent vehicles from departing prior to complete disconnection of oil transfer lines.

13. BRITTLE FRACTURE ANALYSIS

Regulatory Requirement: *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.* **[40 CFR §112.7(i)]**

MDOT MAA does not own or operate field-constructed ASTs at BWI Marshall; thus, this requirement does not apply to the facility.

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14. COMPLIANCE WITH STATE REGULATIONS

Regulatory Requirement: *The SPCC Plan should include a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in 40 CFR §112 or any applicable more stringent State rules, regulations, and guidelines.* **[40 CFR §112.7(j)]**

14.1 OIL OPERATION PERMITS

The State of Maryland requirements for oil pollution and tank management are found under COMAR 26.10.01, which include requirements for obtaining an OOP for oil storage facilities that store any of the following oil quantities in aboveground tanks:

- 10,000 gallons or more of oil intended to be used as a motor fuel, lubricant, or fuel source
- 1,000 gallons or more of used oil.

The total aboveground oil storage capacity owned and operated by MDOT MAA at BWI Marshall exceeds 10,000 gallons and as a result an OOP is required for the facility. BWI Marshall's current OOP (Permit Number 2018OPT-5477), provided in Appendix M, was issued on February 21, 2018 and expires February 21, 2023. The conditions of the OOP are summarized below:

- Measure and record in writing the liquid levels of oil storage systems at this facility prior to filling as required by Code of Maryland Regulations 26.10.0 l.12B (9).

- Deliver oil by truck tank or by transport consistent with Code of Maryland Regulations 26.10.01.16A, B, C and 26.10.01.17C, D, E, F.

- Provide the truck tank or transport delivery vehicle(s) with spill clean-up material to promptly contain, collect and remove oil spillage.

- For oil delivery by truck tank or transport and in all instances where the tank is accessible, drivers shall measure the tank ullage (available capacity) prior to filling.

- Provide fire extinguishers on transport or truck tank vehicles in accordance with NFPA 385, 2000 edition.

- The Maryland Department of the Environment's emergency spill reporting telephone number, 1-866-633-4686, must be conspicuously posted in all truck tanks and transports receiving or delivering oil in Maryland.

- Meet minimum vehicle insurance coverage for the transport of all types of oil, including gasoline.

- Perform preventative maintenance annually or every 25,000 miles for truck tanks, transports, and vacuum tanks in accordance with 49 CFR 396 and COMAR 11.14.

- Inspect and test truck tanks, transports, or vacuum tanks used for transporting flammable petroleum liquids in accordance with 49 CFR 180.407.

- Obtain U.S. DOT numbers for interstate truck tanks, transports, and vacuum tanks or Maryland State Highway Administration identification numbers for intrastate truck tanks, transports, and vacuum tanks.

- Register all placarded truck tanks, transports, and vacuum tanks in accordance with 49 CFR 107.

- Conduct driver safety training requirements as specified in 49 CFR 172.700 and COMAR 26.10.01.16D.

- (For Maryland domiciled vehicles only) Locations where vehicles are permitted to be domiciled in Maryland shall meet zoning requirements for the parking of commercial truck tanks, transports, and vacuum tanks.

- Manage the drainage of the emergency containment areas in accordance with the following:
    - Oil or oil sheen shall be removed from the collected water prior to discharge through the use of sorbent materials or approved oil/water separation systems.

    - Maintain the drain valve in a closed and locked condition when not engaged in a draining activity.

    - Each drawdown shall be supervised, attended and documented by a designated employee.

    - A logbook shall be kept and maintained with entries as follows: the date of each drainage, a description of the quantity and quality of the discharge, and the name of the employee supervising the drawdown. This logbook shall be kept at the site and be available for inspection at all times.

- Maintain the underground double-walled piping associated with the 10,000-gallon Jet-A fuel (FTF-2A) and 5,000-gallon Jet-A fuel (FTF-lA) aboveground storage systems with continuous release monitoring of the interstitial space that can detect a release from any portion of the underground piping that routinely contains oil, in accordance with Code of Maryland Regulations 26.10.05 and which is reviewed and listed by the National Workgroup on Leak Detection Evaluation (www.nwglde.org). The system shall be monitored monthly and written records of each inspection, or each monthly release detection performance, shall be kept on site.

- Label the 250-gallon #2 heating oil (121-VM-8A) aboveground storage tank to display the tank size.

Additional Special and General Conditions of the OOP can be found in Appendix M.

14.2 TANK REGISTRATIONS

Per COMAR 26.10.03.09, all USTs must be registered with MDE. New systems must be registered within 30 days and be in compliance with the following requirements:

- Installation of tanks and piping per COMAR 26.10.03
- Cathodic protection of steel tanks and piping per COMAR 26.10.03.01 and 26.10.03.02
- Financial responsibility under COMAR 26.10.11
- Release detection under COMAR 26.10.03.01 and 26.10.03.02, in addition to COMAR 26.10.05.02 and 26.10.05.03.

All bulk storage tanks at BWI Marshall that are registered with State and local authorities have current certificates of registration, as well as special use permits that are required by the local fire code.

14.3 UST OPERATOR CERTIFICATION PROGRAM AND TRAINING

As required by COMAR 26.10.16, owners of UST facilities are to designate individuals to serve as Class A, B, and C operator(s)[9] for each facility by August 8, 2012. These include operators at facilities that store motor fuel, used oil, and/or hazardous substances in UST systems, as well as at facilities that have bulk storage or operate emergency generator USTs. Operator training is not required for UST systems that store heating oil for direct consumptive use.

MDOT MAA currently provides Class C operator training; however, formal training for UST operators must be provided to appropriate MDOT MAA personnel only by companies approved by MDE's Oil Control Program as part of the UST Operator Certification Program. The topics included as part of MDOT MAA's training for Class C operators are discussed in Section 10.2.

14.4 STORMWATER DISCHARGE PERMITS

Stormwater runoff from BWI Marshall is discharged to permitted outfall areas that are regulated under the National Pollutant Discharge Elimination System (NPDES) State Discharge Permit No. 18-DP-2546, NPDES Permit MD0063371 issued by MDE. To comply with NPDES Permit requirements, BWI Marshall has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) that addresses potential pollution sources of stormwater and best management practices for preventing pollution to receiving water bodies. The SWPPP supplements information provided in this SPCC Plan (Sections 7 and 15) regarding BWI Marshall's stormwater structures, systems, conveyances, and drainage systems.

[9] A ***Class A operator*** is an owner or employee that has the primary responsibility for regulatory requirements necessary to operate and maintain the UST system; a ***Class B operator*** is an owner or operator that oversees routine maintenance, inspections, and recordkeeping for the system; and a ***Class C operator*** is an employee that is usually the first to respond to an emergency.

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15. FACILITY DRAINAGE

BWI Marshall encompasses 20 drainage areas within four watersheds identified by their primary receiving stream names: Cabin Branch, Sawmill Creek, Stony Run, and Piney Run. The drainage areas range from 8 to 700 acres. A variety of owner-occupied and commercial tenant buildings are located within each drainage area. Details of the activities that occur within these watersheds and drainage areas are provided in Table 15-1. This table summarizes information provided in the facility's SWPPP. Potential discharges into these drainage areas are discussed in Section 7.

Figures detailing the tank locations and potential discharge flow pathways are included in Appendix N. The figures are designed to provide probable spill trajectories in the event of a release. These trajectories can be used to determine containment points within the stormwater system following a spill.

15.1 DRAINAGE FROM DIKED STORAGE AREAS

Regulatory Requirement: *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. Diked areas may be emptied by pumps or ejectors, but these pumps or ejectors must be manually activated, and the condition of the accumulation before starting must be inspected to ensure that no oil will be discharged.* **[40 CFR §112.8(b)(1)]**

Use valves of manual, open-and-closed design, for the drainage of diked areas. Flapper-type drain valves may not be used to drain diked areas. If facility drainage drains directly into a watercourse and not into an onsite wastewater treatment plant, uncontaminated retained stormwater must be inspected. **[40 CFR §112.8(b)(2)]**

BWI Marshall has one diked area that contains ASTs FTF-3A and FTF-4A at the Fire Training Facility and E-2A at E Concourse. Precipitation may periodically accumulate and require drainage from this containment area as necessary after significant rain events. Drainage from the containment dike is restricted with drainage valves to prevent accumulations from discharging into the environment. Accumulations within this diked area are inspected for contaminants or oil sheens prior to discharging. A log is kept of all discharges from the diked area.

For tanks that are configured within a secondary dike tank, such as the double-walled sub-base fuel tanks for emergency generators, or tanks that are located within a secondary containment vessel, drainage from the dike tanks are also restricted with drainage valves and/or secondary basin drain plugs.

In accordance with the OOP to manage the drainage of the emergency containment areas, BWI Marshall:

- Removes oil or oil sheen from the collected water prior to discharge
- Maintains the drain valve in a closed and locked condition when not engaged in a draining activity

- Supervises and attends each drawdown

- Keeps and maintains a logbook with the date of each drainage, description of the quantity and quality of the discharge, and the name of the employee supervising the drawdown. This book should be kept at the site and should be available for inspection at all times.

15.2 UNDIKED AREAS

Regulatory Requirement: *Design facility drainage systems from undiked areas with a potential for discharge (such as where piping is located outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. Catchment basins may not be located in areas subject to periodic flooding.* **[40 CFR §112.8(b)(3)]**

If facility drainage is not engineered as specified in 40 CFR §112(b)(3), equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility. **[40 CFR §112.8(b)(4)]**

Drainage from undiked areas follow the discharge scenarios described in Table 7-1 and depicted in Appendix N. Storm drains are located in the vicinity of outdoor tanks (double-walled or contained within a diked area) and are designed to receive drainage from the storage areas. The storm drains discharge to stormwater detention basins and no diversion systems are provided on drainage ditches or storm drains that discharge from these areas. Maintenance manuals have been developed by MDOT MAA specifically for detention basins. This manual is distributed to the various maintenance departments and contractors responsible for completing the structural maintenance requirements on the detention basins to ensure their integrity.

15.3 FACILITY DRAINAGE SYSTEMS AND EQUIPMENT

Regulatory Requirement: *Where drainage waters are treated in more than one treatment unit and such treatment is continuous (requiring pump transfer), provide two "lift" pumps and permanently install at least one of the pumps.* **[40 CFR §112.8(b)(5)]**

Most oil/water separators operated by BWI Marshall are gravity-operated and do not utilize lift pumps for the treatment of drainage water containing oil. The aboveground oil/water separator at the hourly garage has lift pumps to drain the generator room. In case of a pump malfunction, the spill would be contained within the garage in the sump area near the generator.

TABLE 15-1. Watersheds and Drainage Areas.

	Name	Area (acres)	Tanks	Description of Activities That Occur in Watershed
Cabin Branch	Cabin Branch	429	--	Used for fueling, parking, staging, and cargo. Includes both private and commercial property. Includes MDOT MAA facilities: Long Term A and B parking lots, the Runway Safety Area (RSA) at the north end of Runway 15L-33R, and a portion of the ESP Parking Lot east of Elm Road.
Sawmill Creek Watershed	Sawmill Creek Tributary 1, 2, 3	103	SS-1T, SS-2T, SS-3T	Used for parking and staging, with some undeveloped areas. Includes maintained turf associated with the RSA and Gold Parking Lot, and a grass-covered hillside associated with Runway 15R-33L.
	Fork Branch	160	--	Used for parking and staging. Receives drainage from approximately 2,800 ft at the southern end of Runway 15R-33L and Taxiway D, and approximately 2,700 ft of the southeast section of apron. Maintained turf and forested areas east of Taxiway D are included, as well as a small portion of the Gold Parking Lot. A stormwater management (SWM) infiltration basin is located east of the Gold Parking Lot.
	Phelps Branch	124	--	Area is undeveloped. Includes forested and cleared area south of Runway 10-28 and east of 15R-33L. No SWM facilities are present
	Tributary of Southeast Corner	56	--	Area is undeveloped. Drainage area of Sawmill Creek, located in the southeast corner of BWI Marshall, receiving drainage from a forested area. A culvert conveys drainage from this portion of BWI Marshall to Sawmill Creek. No SWM facilities exist in this drainage area.
	Irving Branch and Irving Branch Tributary	184	--	Used for airfield. Receives drainage from south side of Runway 10-28. One-third of the drainage area is forested. Twin pipe arch culverts convey drainage from the southeastern portion of BWI Marshall beneath the road to Sawmill Creek. There are no SWM facilities. The Irving Branch tributary receives runoff from the east end of Runway 10-28. It includes turf area and some forested area.
	Southwest Branch	61	--	Used for airfield. Contributes runoff to Sawmill Creek. Receives drainage from turf areas at south end of Runway 15L-33R, the north side of Runway 10-28, and portions of Taxiways B, S, and U. Drainage from this area passes through a culvert to Muddy Bridge Branch. Existing SWM facilities include one SWM facility (No. P13) and two infiltration trenches.
	Muddy Bridge Branch	484	C-3A, E-1A, E-2A, E-3A, E-4A, 172-MAC-1A, 172-MAC-1D, 28PS-1T, 28DP-1T MELT 1 through MELT 8	Used for airfield, deicing, and maintenance. Contains eastern portion of the airfield and portion of main terminal. Runway 15L-33R, portion of Runway 10-28, a helipad, aprons, taxiways, the General Aviation Complex, hangars, commercial buildings maintained turf, and forest conservation areas are also included. Twin culverts south of the MAC Building convey drainage. NPDES outfall number 007 is located in this drainage area.

TABLE 15-1. Watersheds and Drainage Areas (continued).

	Name	Area (acres)	Tanks	Description of Activities That Occur in Watershed
Stony Run Watershed	Clark Branch	558	--	Mostly undeveloped (forested), with some area used for the soil stockpile. No SWM facilities present. Runoff from soil stockpiles in this area is managed by perimeter controls and sediment traps/basins. Drainage associated with residential and commercial areas south of Dorsey Road passes through culverts beneath the road and flows through the portion of the drainage area.
	Hawkins Branch	195	FTF-1A, FTF-2A, FTF-3A, FTF-4A	Used for soil stockpile, firefighting training, and parking. Some area is undeveloped. SWM facilities (Nos. P8, P9, P10) are located south of the Mathison Truck Staging Lot to treat runoff from that parking area. An unmonitored outfall (number 101) is located near the firefighting training facility adjacent to Mathison Way.
	Signal Branch	114	--	Used for airfield and staging. Receives drainage from the western portion of Runway 10-28 (south side), a cleared area adjacent to the runway, the area north of Mathison Way that is part of the Midfield Cargo Complex, and the new Midfield Cargo Complex parking lot. A culvert located approximately 0.5 mile south of the Stony Run Road/MD Rt. 170 interchange conveys runoff from this drainage area off of BWI Marshall's property and beneath MD Rt. 170 to Stony Run. Existing SWM facilities include one detention basin (No. P6) and one oil/water separator that drains the apron of the new Midfield Cargo Complex.
	Bowden Branch	70	--	Used for airfield. Impervious surfaces include areas such as the western portion (north side) of Runway 10-28, the western portion of Taxiway F, a segment of MD Rt. 170, and the southern half of the MD Rt. 170/Stony Run Road interchange. Unpaved areas include turf areas adjacent to the runway and taxiway, some scrub-shrub and forested areas north of Taxiway F, and the area within the southern half of the interchange. Twin culverts beneath MD Rt. 170 located within the southern portion of the Stony Run Road interchange convey runoff from this drainage area off of airport property and beneath Aviation Boulevard to Stony Run. Existing SWM facilities include at least four infiltration trenches and two SWM facilities (Nos. P4 and P5).
	King Branch & the Tributary North of King Branch	92	--	Used for industrial purposes. Includes a portion of the Northrop Grumman facility and parking lot and a designated forest conservation area. A culvert beneath MD Rt. 170, just north of the Stony Run Road overpass, conveys drainage from the King Branch drainage area off of airport property. North of King Branch composed almost entirely of impervious surface associated with the Northrop Grumman facility and its parking lots. A series of two culverts convey drainage beneath MD 170 to Stony Run. No SWM facilities are associated with either drainage area.

TABLE 15-1. Watersheds and Drainage Areas (continued).

	Name	Area (acres)	Tanks	Description of Activities That Occur in Watershed
Stony Run Watershed	Kitten Branch	707	A-1A, A-2A, B-1A, C-4A, 101-FLV-1A, 114-CUP-1M, 155-KAUF-2A, 155-KAUF-3A, 160-HPG-1A, 160-HPG-2A, NS-1T, NS-2T, NS-3T, ARFF-1T, GLY-1T, TRI-1T,	Mainly used for industrial purposes. Contains central portion of the airfield, including most of the main terminal (Pier A, Pier B, and most of Pier C), the hourly garage, daily garage, and most of the terminal roadway. Airside facilities include most of Runway 15R-33L and 10-28, and many of the taxiways that connect these runways. Other impervious surfaces include Aircraft Rescue and Firefighting Facility (ARFF), and developed portion of Midfield Cargo Complex. Also inside is the Midfield Cargo Fuel Farm. SWM facilities include 4 swales, at least 20 infiltration trenches and basins, and 4 SWM facilities (Nos. P3, and P7). A culvert beneath MD Rt. 170 west of the I-195 interchange conveys drainage off of airport property to Stony Run and is identified as NPDES outfall number 003. Other facilities include the Amtrak train station, MARC parking garage, Building No. 155 and three deicing areas.
	Sachs Branch	118	MOBILE-1M, MOBILE-2M, MOBILE-3M, MOBILE-4M, 116-FM-2A, 116-FM-4A 121-VM-1A through 121-VM-8A, 123-PS-1A, 134-VM-1A, 137-ES-6A through 137-ES-12A, 137-ES-1D through 137-ES-3D, 140-DPG-1A, ONS-15, ONS-2T, Mobile refueler	Used for fueling, maintenance, and parking. Contains various aviation support buildings and their associated parking areas, roadways, the Daily Lot/Cell Phone Waiting Area, and a fuel farm. NPDES outfalls 301, 302, and 303 are located in this drainage area.
	Tributary of Sachs Branch	149	--	Used mainly for parking. Area includes defunct rental facility, shuttle bus staging, the Elm Road Surface Lot, and many facilities not associated with MDOT MAA. Existing SWM facilities include two extended detention basins (Nos. P16 and P17) west and east of the BWI Business District light rail stop
	Consolidated Rental Car Facility Site	70	--	Used for fueling, maintenance and parking. Consolidated Rental Car Facility includes a large parking structure and several separate fueling/vehicle maintenance areas for various rental car companies. Six SWM basins (Nos. P27, P28, P29, P30, P31, and P32), five proprietary Stormfilter systems, and three underground storage vaults are located within the site.
Piney Run Watershed	MDOT MAA Facilities	78	--	Used for fueling, maintenance and parking. New Tenant Parking Facilities and a Maintenance Support Facility are located on-site. Maintenance Support Facility serves as the Consolidated Rental Car Facility shuttle bus maintenance and washing area. SWM facilities associated with Tenant Parking Facilities include seven SWM basins and several infiltration trenches. SWM facilities associated with the Maintenance Support Area include a SWM basin and one proprietary Stormfilter system.

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16. BULK STORAGE CONTAINERS

16.1 MATERIALS AND CONSTRUCTION

Regulatory Requirement: *A container cannot be used for oil storage unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.* **[40 CFR §112.8(c)(1)]**

The fixed AST installations at BWI Marshall are designed and constructed in accordance with good engineering practice to avoid discharges. All tanks are shop-fabricated, constructed of steel, and compatible with the liquids that they contain. The tanks are also suitable for the pressure and temperature conditions of their storage areas. The drums are constructed of either steel or plastic and are also compatible with the liquids that they contain and the storage areas in which they are located.

16.2 SECONDARY CONTAINMENT

Regulatory Requirement: *Construct all bulk storage container installations (except mobile refuelers and other non-transportation related tank trucks) so that a secondary means of containment is provided for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. Diked areas should be sufficiently impervious to contain discharged oil. An alternative system consisting of a drainage trench enclosure can also be used, as long as it is arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.* **[40 CFR §112.8(c)(2)]**

The drainage of uncontaminated rainwater from the diked area into a storm drain, or the discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment is not allowed, unless: (1) the bypass valve is normally kept sealed closed, (2) the retained rainwater is inspected to ensure that its presence will not cause a discharge, (3) the bypass valve is opened and resealed following drainage under responsible supervision, and (4) adequate records of such events are kept. **[40 CFR §112.8(c)(3)]**

Adequate secondary containment is provided for all MDOT MAA oil storage tanks at BWI Marshall, as discussed in Section 8. All containment structures for the ASTs are capable of containing spilled material from their respective tanks. Several locations utilize nearby oil/water separators for additional secondary containment capacity.

Tanks that are of double-wall construction are listed in Table 5-1. The double-wall design of these tanks is capable of providing intrinsic secondary containment and consists of a secondary shell to contain at least 110 percent of the inner shell capacity. The interstitial space of double-walled tanks is inspected during the monthly inspections to detect leaks from the inner tank.

The majority of the single-walled ASTs and 55-gallon steel drums are housed indoors. The secondary containment units do not drain directly into storm drains or open watercourses, and accumulated precipitation is visually examined to confirm that a sheen, floating layer, or other visual contamination, is not present prior to draining from the secondary containment.

For ASTs that include secondary containment as part of the tank structure (i.e., double-walled tanks) or part of a building (i.e., impervious floors and sills), precipitation does not require drainage as it does not accumulate in the containment. Outdoor tanks are equipped with steel secondary containment units, where the steel is impervious to spills.

16.3 CORROSION PROTECTION

Regulatory Requirement: *Protect any completely buried metallic storage tank installed on or after 10 January 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. Leak tests should be regularly performed on such completely buried metallic storage tanks.* **[40 CFR §112.8(c)(4)]**

Partially buried or bunkered metallic tanks shall not be used for oil storage, unless the buried section of the tank is protected from corrosion. Partially buried and bunkered tanks must be protected from corrosion by coatings or cathodic protection compatible with local soil conditions. **[40 CFR §112.8(c)(5)]**

There are two USTs at BWI Marshall that are installed with cathodically protected steel. All other USTs are constructed with either fiberglass-reinforced plastic or composite materials, both of which are resistant to corrosion. There are no other USTs regulated by this requirement.

16.4 TANK TESTING AND INSPECTION

Regulatory Requirement: *Test or inspect each aboveground container for integrity on a regular schedule and whenever material repairs are made. The appropriate qualifications for personnel performing tests and inspections must be determined in accordance with industry standards. The frequency and type of testing must take into account container size, configuration, and design such as containers that are shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried. Comparison records must be kept, in addition to inspecting the container's supports and foundations. The outside of the container must also be frequently inspected 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 40 CFR §112.8(c)(6).* **[40 CFR §112.8(c)(6)]**

Routine visual inspections of all MDOT MAA tanks at BWI Marshall are performed as described in Section 9.1. Formal external inspections for applicable tanks will be performed every 20 years as described in Section 9.2.

16.5 LEAKAGE CONTROL VIA INTERNAL HEATING COILS

Regulatory Requirement: *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.* **[40 CFR §112.8(c)(7)]**

No ASTs installed at BWI Marshall have internal heating coils.

16.6 FAIL-SAFE ENGINEERED TANK INSTALLATION

Regulatory Requirement: *Engineer or update each container installation in accordance with good engineering practice to avoid discharges. One of the following devices must be provided:*
(1) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. An audible air vent may suffice in smaller facilities.
(2) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.
(3) Direct audible or code signal communication between the container gauger and the pumping station.
(4) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direction vision gauges. If this alternative is used, a person must be present to monitor gauges and the overall filling of bulk storage containers.
(5) Liquid level sensing devices must be regularly tested to ensure proper operation.
[40 CFR §112.8(c)(8)]

The ASTs at BWI Marshall are provided with one or more of the following means of detecting or preventing releases of liquids to the environment:

- Visual gauges are the most common overfill prevention devices that are provided for most of the tanks at BWI Marshall, including most of the emergency generator sub-base fuel tanks and the 275-gallon ASTs used for field and vehicle maintenance. The various types of visual gauges utilized at BWI Marshall include Krueger Type D gauges, Scully gauges, and Morrison clock gauges.

- Some of the ASTs are equipped with high fuel alarms that are capable of producing an audible or visual signal. Some of these ASTs are connected to an automatic tank gauging system.

- Several ASTs are equipped with overfill prevention valves, where the valve terminates filling to the tank when the fuel level exceeds a certain level (typically 95 percent of the tank capacity or greater).

Overfill prevention devices are maintained in accordance with manufacturer recommendations. Table 16-1 provides a description of the overfill prevention devices that are used for each tank at BWI Marshall.

TABLE 16-1. Overfill Prevention Devices for ASTs.

Tank ID	Description/Use	Capacity (gallons)	Contents	Overfill Prevention Device
533	Mobile Refueler - Diesel Fuel Deliveries for Vehicles and Equipment	2,700	Diesel Fuel	• Equipped with emergency shut-off.
101-FLV-1A	Emergency Generator Day Tank - Fuel Supply	275	Diesel Fuel	• Equipped with high level fuel alarm.
MOBILE-1M	Portable Emergency Generator	100	Diesel Fuel	• Equipped with level gauge.
MOBILE-2M	Portable Emergency Generator	160	Diesel Fuel	• Equipped with level gauge.
MOBILE-3M	Portable Emergency Generator	80	Diesel Fuel	• Equipped with level gauge.
MOBILE-4M	Portable Emergency Generator	1,200	Diesel Fuel	• Equipped with level gauge
114-CUP-1M	Portable Emergency Generator	2,800	Diesel Fuel	• Equipped with overfill alarm.
116-FM-4A	AST - Fuel Supply	4,000	Diesel Fuel	• Equipped with Morrison clock gauge; overfill protection valve with audible alarm • Pneumercator ATG with interstitial monitoring
116-FM-2A	Emergency Generator Sub-Base Tank - Fuel Supply	375	Diesel Fuel	• Equipped with high level fuel alarm and visual gauge.
121-VM-1A	AST - Vehicle Maintenance	275	Motor Oil (15/40)	• Equipped with Krueger Type D visual gauge; no overfill alarm.
121-VM-2A	AST - Vehicle Maintenance	275	Motor Oil (10/30)	• Equipped with Krueger Type D visual gauge; no overfill alarm.
121-VM-3A	AST - Vehicle Maintenance	275	Automatic Transmission Fluid	• Equipped with Krueger Type D visual gauge; no overfill alarm.
121-VM-4A	AST - Vehicle Maintenance	275	Hydraulic Oil	• Equipped with Krueger Type D visual gauge; no overfill alarm.
121-VM-5A	AST - Vehicle Maintenance	275	Motor Oil (5/30)	• Equipped with Krueger Type D visual gauge; no overfill alarm.
121-VM-6A	AST - Used Oil From Vehicle Maintenance	275	Used Oil	• Equipped with mechanical fill prevention (automatic shut-off).
121-VM-8A	AST - Used Oil for Heater	250	No. 2 Heating Oil	• Equipped with Krueger Type D visual gauge; no overfill alarm.

TABLE 16-1. Overfill Prevention Devices for ASTs.

Tank ID	Description/Use	Capacity (gallons)	Contents	Overfill Prevention Device
123-PS-1A	AST - Heating Fuel Supply	3,000	No. 2 Heating Oil	• Connected to Pneumercator liquid level control system; equipped with Scully visual gauge, mechanical fill prevention (auto shut-off when tank is 95% full), interstitial sensors, and inventory and leak detection equipment.
134-VM-1A	AST – Heating Fuel Supply	500	No. 2 Heating Oil	• Equipped with Scully gauge; overfill protection valve.
137-ES-6A	AST - Vehicle Maintenance	240	Automatic Transmission Fluid	• Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge
137-ES-7A	AST - Vehicle Maintenance	240	Hydraulic Oil	• Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge
137-ES-8A	AST - Vehicle Maintenance	240	15/40 Heavy Weight Crankcase Oil	• Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge
137-ES-9A	AST - Used Oil From Vehicle Maintenance	240	Used Oil	• Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge
137-ES-10A	AST - Vehicle Maintenance	60	10/30 Crankcase Oil	• Equipped with overfill protection valve.
137-ES-11A	AST – Vehicle Maintenance	60	Crankcase Oil	• Equipped with overfill protection valve
140-DPG-1A	Emergency Generator Sub-Base Tank - Fuel Supply	1,750	Diesel Fuel	• Equipped with visual gauge, high fuel level alarm, and rupture basin drain.
155-KAUF-2A	Emergency Generator Sub-Base Tank - Fuel Supply	411	Diesel Fuel	• Equipped with visual gauge and interstitial alarm; no high level fuel alarm.
155-KAUF-3A	Emergency Generator Sub-Base Tank - Fuel Supply	310	Diesel Fuel	• Equipped with visual gauge, primary liquid level sensors in interstitial space.
160-HPG-1A	Emergency Generator Day Tank - Fuel Supply	200	Diesel Fuel	• Equipped with visual gauge and primary leak detector.
160-HPG-2A	Emergency Generator Sub-Base Tank - Fuel Supply	375	Diesel Fuel	• Equipped with visual gauge.
172-MAC-1A	Emergency Generator Sub-Base Tank - Fuel Supply	700	Diesel Fuel	• Equipped with visual gauge and high level fuel alarm.
FTF-1A	AST - Firefighting Training Fuel	5,000	Jet A Fuel	• Equipped with Morrison clock gauge.
FTF-2A	AST - Firefighting Training Fuel	10,000	Jet A Fuel	• Equipped with Morrison clock gauge.

TABLE 16-1. Overfill Prevention Devices for ASTs.

Tank ID	Description/Use	Capacity (gallons)	Contents	Overfill Prevention Device
FTF-3A	AST - Firefighting Training Used Fuel/Waste	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	• Equipped with Morrison clock gauge.
FTF-4A	AST - Firefighting Training Used Fuel/Waste	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	• Equipped with Morrison clock gauge.
A-1A	Emergency Generator Sub-Base Tank - Fuel Supply	600	Diesel Fuel	• Equipped with visual gauge.
A-2A	Emergency Generator Sub-Base Tank - Fuel Supply	430	Diesel Fuel	• Equipped with visual gauge.
B-1A	Emergency Generator Sub-Base Tank - Fuel Supply	150	Diesel Fuel	• Equipped with visual gauge.
C-3A	Emergency Generator Sub-Base Tank - Fuel Supply	3540	Diesel Fuel	• Equipped with visual gauge.
C-4A	Emergency Generator Sub-Base Tank - Fuel Supply	800	Diesel Fuel	• Equipped with visual gauge and Gems series LS-700 level switch.
E-1A	Emergency Generator Sub-Base Tank - Fuel Supply	660	Diesel Fuel	• Equipped with visual gauge and high level fuel alarm.
E-2A	Emergency Generator Supply Tank - Fuel Supply to AST 008A	3,000	Diesel Fuel	• Connected to Pneumercator liquid level control system; equipped with Morrison clock gauge, mechanical fill prevention, and audible overfill alarm.
E-3A	Emergency Generator Day Tank - Fuel Supply	150	Diesel Fuel	• Equipped with high level fuel alarm through Metasys.
E-4A	Emergency Generator Sub-Base Tank – Fuel Supply	555	Diesel Fuel	• Equipped with visual gauge, interstitial alarm, and high level fuel alarm.
				•
				•

16.7 EFFLUENT MONITORING

Regulatory Requirement: *Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge.* **[40 CFR §112.8(c)(9)]**

The principal stormwater pollutants of concern at BWI Marshall are petroleum products (oils, fuels, greases) and aircraft deicing fluid (primarily propylene glycol). Petroleum products are removed via oil/water separators prior to being discharged into the Sawmill Creek and Stony Run watersheds. The oil/water separators effectively capture oil products that may be entrained in the

stormwater runoff to prevent the release of such pollutants into the environment. BWI Marshall has a large number of oil/water separators installed and they are maintained through periodic inspections and cleaning. BWI Marshall maintains a similar but separate collection system for glycol.

16.8 VISIBLE OIL LEAKS

Regulatory Requirement: *Promptly correct visible discharges that result in a loss of oil from a container, including, but not limited to, seams, gaskets, piping, pumps, valves, rivets, and bolts. Any accumulations of oil in diked areas must be promptly removed.* **[40 CFR §112.8(c)(10)]**

If oil leaks are observed from tanks or associated piping, they will be immediately reported to the responsible supervisor and immediate attention shall be given to repairing the leaking equipment or stopping service to the leaking tank or piping. The area where the release occurs shall be cleaned up and the site restored. Oil leaks that result in a loss of oil/fuel from tank seams, gaskets, rivets, and bolts are promptly corrected and any contaminated materials resulting from such leaks are promptly removed.

16.9 MOBILE OR PORTABLE OIL STORAGE TANKS

Regulatory Requirement: *Position or locate mobile or portable oil storage containers to prevent a discharge. Except for mobile refuelers and other non-transportation-related tank trucks, a secondary means of containment, such as a dike or catchment basin, must be furnished to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.* **[40 CFR §112.8(c)(11)]**

Mobile refuelers that operate exclusively within the confines of a non-transportation-related facility such as BWI Marshall are subject to the SPCC rule. MDOT MAA owns and operates one 2,700-gallon diesel mobile refueler (533) at BWI Marshall that is used to refuel ASTs, USTs, emergency generators, and heavy duty snow removal equipment. Mobile refueler 533 is typically parked on the pavement between Buildings 116 and 118 at the Field Maintenance Facility.

No stormwater inlets are located within the Field Maintenance Facility to receive drainage from the mobile refueler parking area. Drainage from this area flows by gravity towards two 20,000-gallon oil/water separators that are located downhill from the parking area and in front of Building 121. These would capture and retain any significant loss of oil from the mobile refueler.

MDOT MAA also operates five (5) portable emergency generators with fuel tanks (MOBILE-1M through MOBILE-4M; and 114-CUP-1M) and eight (8) trailered snow melters with mobile ASTs (MELT-1 through MELT-8). MOBILE-4M, 114-CUP-1M, and the mobile snow melter tanks are all of double-walled construction. MOBILE-1M through MOBILE-3M are located in the alley between Buildings 112 and 113 in front of a fenced area away from vehicle traffic. In the event of a discharge, oil would likely be retained on the asphalt surface until observed during regular inspections and managed via active containment measures (spill kits are located nearby

in the cargo bays). Oil not managed through active containment measures would gravity flow towards an oil/water separator located east of the storage area in the taxiway.

17. FACILITY TRANSFER OPERATIONS

Transfer operations at BWI Marshall include the:

- Transfer of oil from underground heating oil storage tanks to emergency generators
- Filling of facility delivery trucks using fuel dispensers
- Transfer of oil into or from mobile refuelers at the unloading area.

Preventive maintenance occurs annually or every 25,000 miles for truck tanks, transports, and vacuum tanks used in facility transfer operations.

17.1 UNDERGROUND PIPING

Regulatory Requirement: *Provide buried piping that is installed or replaced on or after August 16, 2002 with a protective wrapping and coating. Such buried piping installations must also be cathodically protected, or otherwise satisfy the corrosion protection standards for piping listed in 40 CFR §280 or a State program approved under 40 CFR §281. If a section of buried line is exposed for any reason, it must be carefully inspected for deterioration. If corrosion damage is found, additional examination and corrective action as indicated by the magnitude of damage must be undertaken.* **[40 CFR §112.8(d)(1)]**

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. **[40 CFR §112.8(d)(2)]**

Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction. **[40 CFR §112.8(d)(3)]**

All steel buried piping at the facility is cathodically protected against corrosion and is provided with protective wrapping and coating. Exposed sections of buried piping are examined for deterioration. In the occurrence that corrosion damage is found, additional examination and corrective action will be taken as appropriate considering the magnitude of the damage. Additionally, integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement is conducted.

In accordance with the OOP, BWI Marshall maintains the underground double-walled piping associated with the 10,000-gallon Jet-A fuel (FTF-2A) and 5,000-gallon Jet-A fuel (FTF-1A) aboveground storage systems with continuous release monitoring of the interstitial space that can detect a release from any portion of the underground piping that routinely contains oil, in accordance with Code of Maryland Regulations 26.10.05 and which is reviewed and listed by the National Workgroup on Leak Detection Evaluation (www.nwglde.org). The system is monitored monthly and written records of each inspection, or each monthly release detection performance, are kept on site.

For sleeved underground piping sloped to and opening into a building or sump, or for underground piping located in a 100% accessible chase, a visual inspection of the piping is performed monthly

(at a minimum) and written records, including the date of inspection, person inspection, and what was observed are recorded.

Within 30 days, MDOT MAA notifies MDE of the testing method selected and records are maintained for 1 year onsite and for 5 years at a location designated by MDOT MAA.

All bulk oil transfers are attended by MDOT MAA personnel to identify and minimize potential spillage, and to ensure compliance with MDOT MAA procedures for loading and unloading. If piping is intended to be out-of-service or in standby service, the fill ports/connections will be capped or locked. Appropriate signage will be placed indicating the piping is out of service. Piping associated with existing underground oil storage was designed in accordance with MDOT MAA specifications and applicable design standards required to minimize abrasion and corrosion and allow for expansion and contraction of the piping.

17.2 ABOVEGROUND PIPING

Regulatory Requirement: *Regularly inspect all aboveground valves, piping, and appurtenances. 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 should be assessed. Integrity and leak testing must also be conducted on buried piping at the time of installation, modification, construction, relocation, or replacement.* **[40 CFR §112.8(d)(4)]**

Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations. **[40 CFR §112.8(d)(5)]**

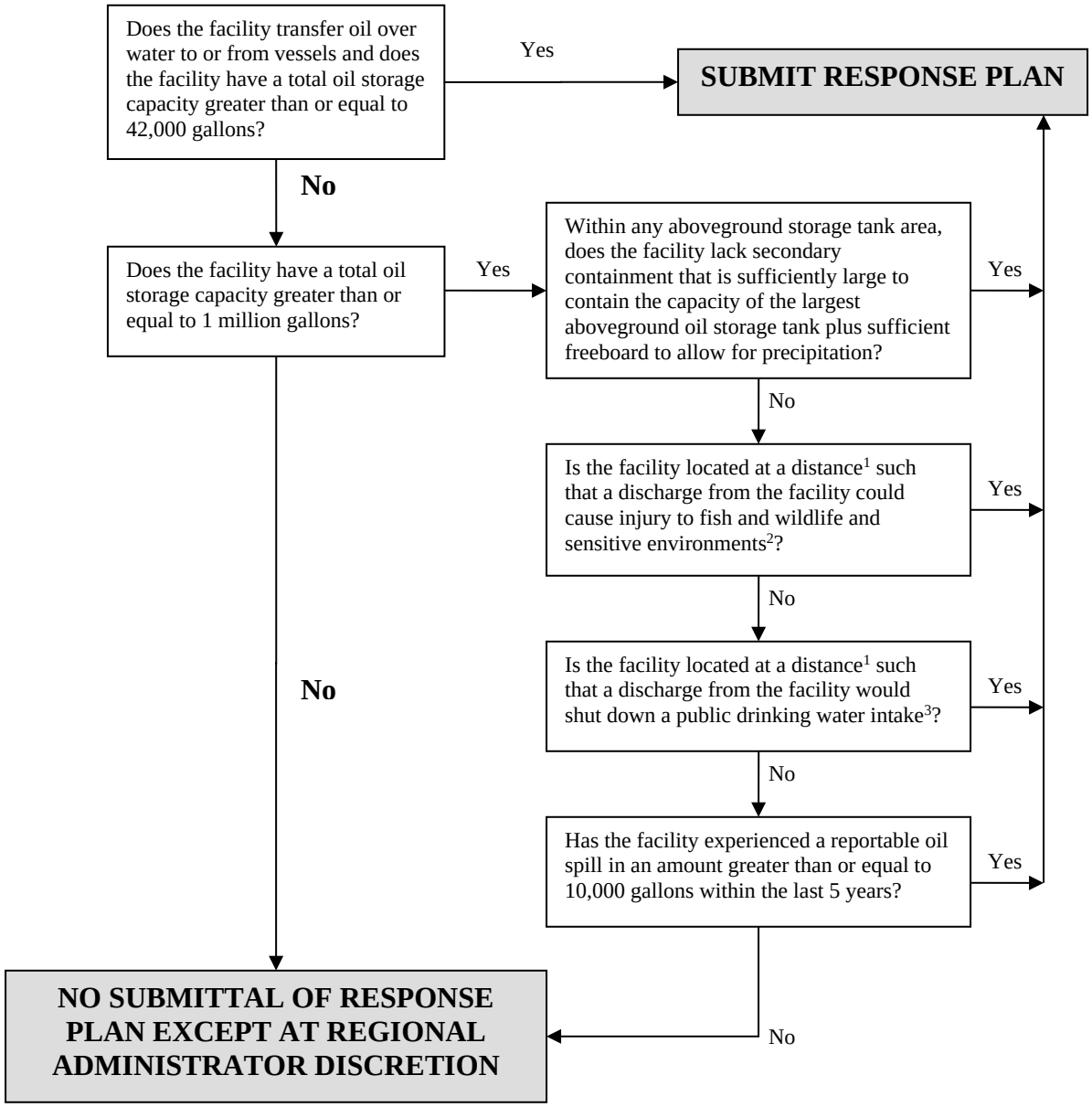
The facility is manned 24 hours per day, 7 days per week. Walk-around reviews are conducted when personnel are on-site. Piping runs, valves, flanging, and piping connections are examined and evaluated during such walk-around reviews. If a problem is observed, corrective action will be taken within a reasonable timeframe. Additionally, a more detailed inspection is performed at least once a month, as discussed in detail in Section 9.

Vehicular traffic in areas where the ASTs are located at BWI Marshall is limited almost exclusively to MDOT MAA employees and contractors that are conducting work on behalf of MDOT MAA. Piping is either underground and associated with uses or direct feed in the case of generators with sub-base tanks.

Employees and contractors are trained to be aware of potential hazards of driving in close proximity to piping carrying oil contents and are to take appropriate precautionary measures. If an area is observed on site to potentially be damaged by vehicular traffic, guard posts, or other cautionary measures will be employed.

18. APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Regulatory Requirement: *If the owner or operator of a facility determines that the facility will not be expected to cause substantial harm as defined by the criteria listed under Appendix C to 40 CFR §112 (decision criteria depicted in below flowchart), the owner or operator shall complete and maintain at the facility the certification form of the applicability of the substantial harm criteria, found in Section 1.2 of this SPCC Plan.* **[40 CFR §112.20(e)]**

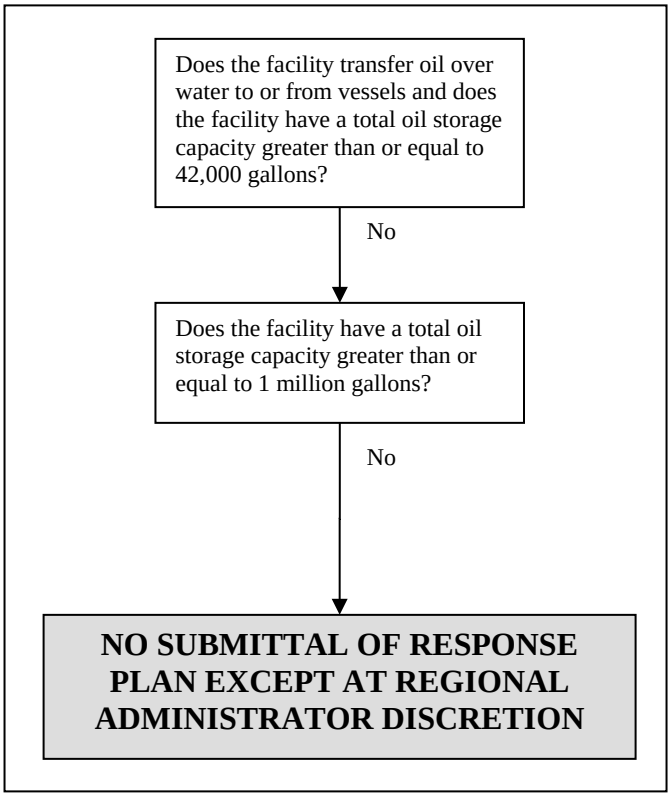


[1] Distance is calculated using the appropriate formula described in Attachment C-III to Appendix C of 40 CFR §112, or using a comparable formula. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to certification form.

[2] For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/National Oceanic and Atmospheric Administration's *Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments* (59 FR 14713, 29 March 1994), and the applicable Area Contingency Plan.

[3] Public drinking water intakes are analogous to public water systems as defined under 40 CFR §143.2(c).

BWI Marshall's Applicability of Substantial Harm Criteria Certification is provided in Section 1.2 of this SPCC Plan. The flowchart that applies to BWI Marshall is provided below:



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APPENDIX A

RECORD OF REVIEWS AND UPDATES

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RECORD OF REVIEWS AND UPDATES

Record scheduled reviews and SPCC Plan amendments in the below table. This log must be completed even if no amendment is made to the SPCC Plan as a result of the review.

Date of Review[1]	Partial or Full Review/Update?	Reason for Amendment[2]	Approved By
April 2008 (Draft)	N/A	• Primarily revised contact information and format.	Paul Shank, Deputy Executive Director, Facilities Development and Engineering
December 2008	Full	• Updates.	Paul Shank, Deputy Executive Director, Facilities Development and Engineering
June 2009	Full	• Addition of tanks, drums and oil-filled operational equipment.	Paul Shank, Deputy Executive Director, Facilities Development and Engineering
September 2009	Partial	• Address BWI Airport Audit Findings (audit performed July 2009).	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services
July 2011	Full	• Revision of tank identification system. • Addition/removal of tanks and oil-filled operational equipment. • Revision of training requirements.	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services
April 2013	Partial	• Addition/removal of tanks	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services
March 2014	Partial	• Addition/removal of tanks	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services
June 2015	Partial	• Addition/removal of tanks • Updates based on BWI's Oil Operations Permit • New temporary location for Tank E-1A	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services
December 2015	Partial	• Addition/removal of tanks	Mark Williams, Manager, Division of Environmental Compliance, Office of Planning and Environmental Services

[1] A full review of the SPCC Plan must be performed at least once every five years.

[2] The SPCC Plan must be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for discharge. Briefly describe reasons for plan amendment. These may include one or more of the examples listed under Section 3.2 of this SPCC Plan, in addition to any administrative changes such as updates to names, phone numbers, regulatory changes, or changes in company policies.

Date of Review[1]	Partial or Full Review/Update?	Reason for Amendment[2]	Approved By
November 2017	Partial	• Addition of drum storage areas • Addition/removal of tanks • Photo log update • Revision of inspection procedures • Administrative updates	Darline Terrell-Tyson, Manager, Environmental Programs Section, Division of Planning and Engineering
January 2019	Partial	• Addition of tank • Photo log update • Administrative updates	Darline Terrell-Tyson, Deputy Director, Office of Environmental Services
June 2022	Partial	• Replacement of SS-1T • Removal of JUL-1A • Removal of C-1A • Photo log updated • Administrative updates	Darline Terrell-Tyson, Director, Office of Environmental Compliance and Sustainability

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APPENDIX B

SITE LOCATION MAP

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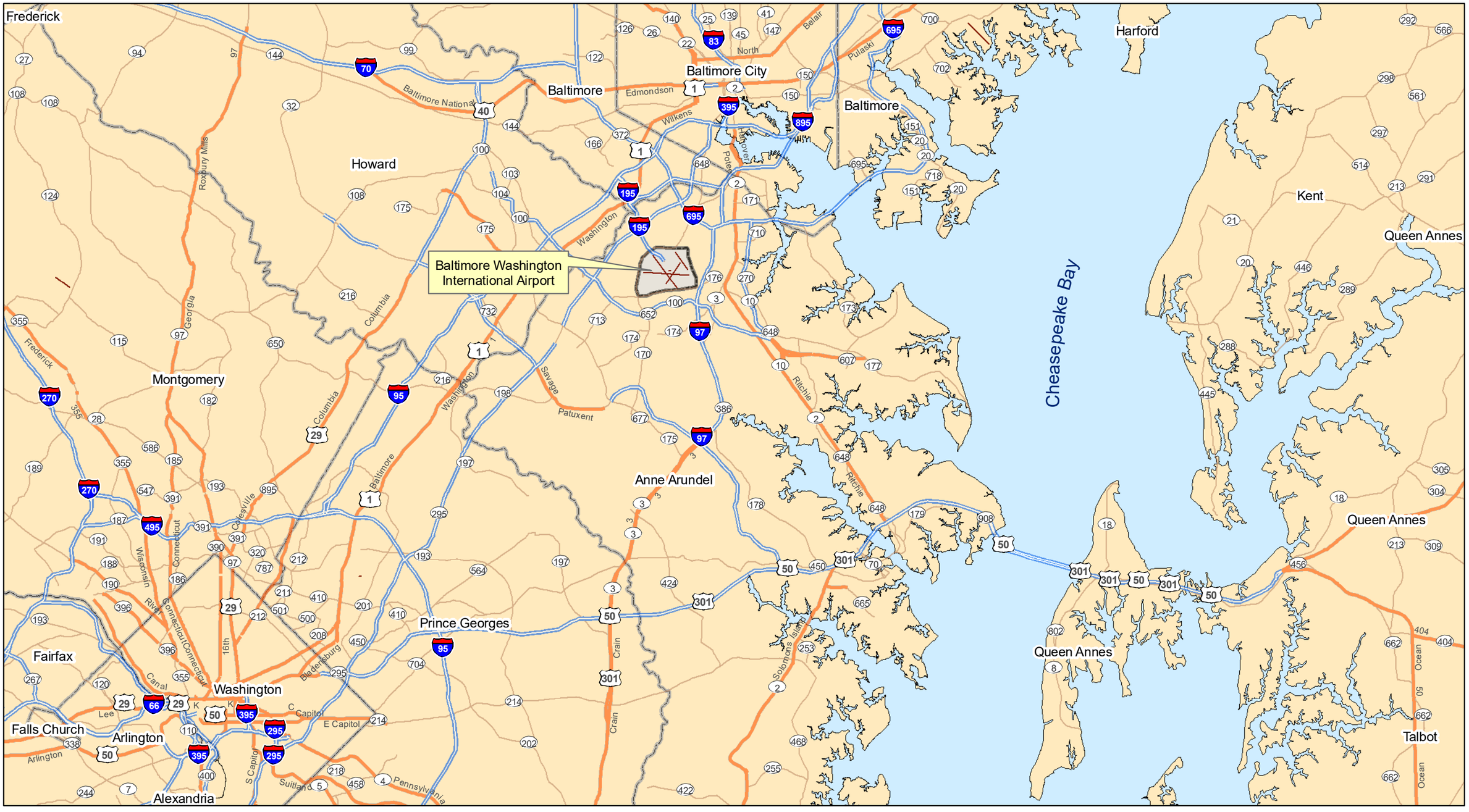

EA Engineering, Science, and Technology, Inc.

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SITE LOCATION MAP

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APPENDIX C

DETAILED OIL STORAGE CONTAINER INVENTORY

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New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
101-FLV-1A	011A	Emergency Generator Day Tank - Fuel Supply	Building 101 - Field Lighting Vault	1	275	Diesel Fuel	2002	Shop-Fabricated, Single-Walled Steel Tank	● Indoors ● Equipped with high level fuel alarm	1	Within SIDA and locked inside Field Lighting Vault.	Fuel supplied by UST 003.
MOBILE-1M	172-MAC-1M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	100	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	● Spill kit located between mobile generators and Building 113 loading dock	1	Within SIDA.	From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-2M	172-MAC-2M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	160	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	● Spill kit located between mobile generators and Building 113 loading dock	1	Within SIDA.	From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-3M	172-MAC-3M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)	1	80	Diesel Fuel	N/A	Portable Trailer, Single-Walled Steel Tank	● Spill kit located between mobile generators and Building 113 loading dock	2	Within SIDA.	From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-4M	N/A	Portable Emergency Generator	Building 112 – Behind Cargo Building	1	1,200	Diesel Fuel	2015	Shop-Fabricated, Double-Walled Steel Tank	● Equipped with level gauge	1	Within SIDA.	From self-fueling pumps at Field Maintenance or Tank Truck 533
114-CUP-1M	--	Portable Emergency Generator	Building 114 - Central Utility Plant	1	2,800	Diesel Fuel	2012	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Located inside truck on concrete pavement ● Equipped with overfill alarm	1	Trailer is parked within a gated enclosure and require keys for access.	MAA Field Maintenance (Tank Truck 533)
114-CUP-1D	--	Drum Storage Used Oil Drums	Building 114 - Central Utility Plant	4	220	Used Oil/Used Refrigerant Oil	N/A	Plastic Drums	● Drums stored indoors on secondary containment pallets. ● Spill kit located in Building 114, by the locker room.	N/A	Stored in the mechanical room at the CUP (authorized personnel only).	--
114-CUP-2D	--	Drum Storage	Building 114 - Central Utility Plant	2	110	Refrigeration Oil	N/A	Steel Drums	● Drums stored indoors on secondary containment pallets. ● Spill kit located in Building 114, inside the chiller room	N/A	Stored in the mechanical room at the CUP (authorized personnel only).	N/A
533	---	Tank Truck - Diesel Fuel Deliveries for Vehicles and Equipment	Building 115 - Field Maintenance (Typically Parked Between Building 115 and Building 158)	1	2,700	Diesel Fuel	N/A	Tank Truck, Single-Walled Steel Tank	● Drainage as a result of any spills/leaks from paved parking lot drain by gravity to two 20,000-gallon oil/water separators (located in front of Building 121) ● Equipped with emergency shut-off Spill kit, absorbent material, and 2 fire extinguishers are carried on truck at all times	2	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Mansfield Oil Tanker Truck or Tank 116-FM-4A
116-FM-2A	046A, B-2A	Emergency Generator Sub-Base Tank - Fuel Supply	Behind Building 116 – Field Maintenance	1	375	Diesel Fuel	2010; Relocated in 2012	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	● Dike tank provided ● Equipped with high level fuel alarm and visual gauge	N/A	Genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
116-FM-4A	050A	AST - Fuel Supply	Building 116 – Field Maintenance (behind FMX Building)	1	4,000	Diesel Fuel	2014	Shop-Fabricated, Double-Walled Steel Tank	● Equipped with Morrison clock gauge; overfill protection valve with audible alarm ● Pneumercator ATG with interstitial monitoring	1	Located within the Field Maintenance area; authorized personnel only and locked during-off-hours	Mansfield Oil Tanker Truck
118-ES-1D	--	Drum Storage	Building 118 - Equipment Building	3	165	Oil	N/A	Steel Drum	● Drums stored indoors on secondary containment pallets.	N/A	Enclosed within the equipment building.	--
121-VM-1A	034A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (15/40)	2008	Shop-Fabricated, Single-Walled Steel Tank	● Indoors; located above floor drains that drain to sump ● Equipped with Krueger Type D visual gauge; no overfill alarm ● Spill kit located in Building 121, by Room 121-13	1	Within Field Maintenance area (authorized personnel only and locked during off-hours).	Oil Supplied by 55-gal drums

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
121-VM-2A	032A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (10/30)	2008	Shop-Fabricated, Single-Walled Steel Tank	● Indoors; located above floor drains that drain to containment sump ● Equipped with Krueger Type D visual gauge; no overfill alarm ● Spill kit located in Building 121, by Room 121-13	1	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Oil Supplied by 55-gal drums
121-VM-3A	041A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Automatic Transmission Fluid	2008	Shop-Fabricated, Single-Walled Steel Tank	● Indoors; located above floor drains that drain to containment sump ● Equipped with high level fuel alarm. Equipped with Krueger Type D visual gauge; no overfill alarm ● Spill kit located in Building 121, by Room 121-13	1	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	ATF supplied by 55-gal drums
121-VM-4A	035A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Hydraulic Oil	2008	Shop-Fabricated, Single-Walled Steel Tank	● Indoors; located above floor drains that drain to containment sump ● Equipped with Krueger Type D visual gauge; no overfill alarm ● Spill kit located in Building 121, by Room 121-13	1	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Oil Supplied by 55-gal drums
121-VM-5A	033A	AST - Vehicle Maintenance	Building 121 - Vehicle Maintenance (Room 121-1)	1	275	Motor Oil (5/30)	2008	Shop-Fabricated, Single-Walled Steel Tank	● Indoors; located above floor drains that drain to containment sump ● Equipped with Krueger Type D visual gauge; no overfill alarm ● Spill kit located in Building 121, by Room 121-13	1	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Oil Supplied by 55-gal drums
121-VM-6A	007A	AST - Used Oil From Vehicle Maintenance	Building 121 - Vehicle Maintenance (Main Garage)	1	275	Used Oil	1995	Shop-Fabricated, Single-Walled Steel Tank	● Single-walled steel tank within 360-gal tank containment unit ● Equipped with visual gauge ● Spill kit located in Building 121, by Room 121-13	1	Within the Building 121; locked when not in use.	Used Oil pumped from various oil drainage containers
121-VM-8A	029A	AST - Heating Fuel Supply	Building 121 - Vehicle Maintenance (Room 121-3)	1	250	No. 2 Heating Oil	1998	Shop-Fabricated, Single-Walled Steel Tank	● Indoors ● Equipped with Morrison clock gauge ● Spill kit located in Building 121, by Room 121-13	2	Within the Building 121; locked when not in use.	#2 Heating oil supplied by Mansfield Oil
121-VM-9D	--	Drum Storage Used Oil Drums	Building 121 - Vehicle Maintenance (Main Garage)	1	55	Used Oil	N/A	Steel Drum	● Drums stored indoors on secondary containment pallets. ● Spill kit located in Building 121, by Room 121-13.	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	--
123-PS-1A	040A	AST - Heating Fuel Supply	Building 123 - Old Paint Shop	1	3,000	No. 2 Heating Oil	2008	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Connected to Pneumercator liquid level control system; equipped with Scully visual gauge, mechanical fill prevention (auto shut-off when tank is 95% full), interstitial sensors, and inventory and leak detection equipment	1	Within SIDA; access through Gate G.	#2 Heating oil supplied by Mansfield Oil
134-VM-1A	--	AST - Heating Fuel Supply	Building 134 - Vehicle Maintenance (Northeast Corner)	1	500	No. 2 Heating Oil	2012	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Skid mounted on pad ● Equipped with Scully gauge	1	Within SIDA; access through Gate G.	#2 Heating oil supplied by Mansfield Oil
137-ES-12A	--	AST-Used Oil from Drained Filters	Building 137 - Heavy Equipment Shop	1	60	Used Oil	2017	Shop -Fabricated Double-Walled Galvanized Steel tank	● Double-walled tank ● Equipped with Krueger Product Level Gauge	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours); requires keys for access when unmanned.	N/A (filter crusher drain)

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
137-ES-6A	043A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	Automatic Transmission Fluid	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with Kruger gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
137-ES-7A	038A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	Hydraulic Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with Kruger gauge ● Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
137-ES-8A	037A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	240	15/40 Heavy Weight Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with Kruger gauge ● Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
137-ES-9A	039A	AST - Used Oil From Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)	1	240	Used Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with Kruger gauge ● Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	Used Oil pumped from various oil drainage containers
137-ES-10A	036A	AST – Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)	1	60	10/30 Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with Kruger leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
137-ES-11A	N/A	AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)	1	60	Crankcase Oil	2015	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Equipped with overfill protection valve	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
137-ES-1D	028A	Drum Storage - Used Oil Drums	Building 137 - Heavy Equipment Shop	5	275	Crankcase Oil	N/A	Steel and Poly Drums	● Drums stored indoors on secondary containment pallets. ● Spill kit located in Building 137.	N/A	Indoors within secured facility.	N/A
137-ES-2D	--	Drum – Small Engine Fueling	Building 137- Heavy Equipment Shop (Yellow Shed Behind Building)	1	55	2-cycle fuel	N/A	Steel Drum	● Drum stored indoors on secondary containment pallet inside shed. ● Spill kit located inside yellow shed	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours)	N/A
137-ES-3D	--	Drum Storage – Vehicle Maintenance	Building 137- Heavy Equipment Shop (Shed Behind Building)	1	55	Motor Oil	N/A	Steel Drum	● Drum stored indoors on secondary containment pallet inside shed. ● Spill kit located in Building 137	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours)	N/A
140-DPG-1A	017A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 140 - Daily Parking Garage (On Hill to West of Garage)	1	1,750	Diesel Fuel	2003	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge, high fuel level alarm, and rupture basin drain.	1	Within locked area; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
155-KAUF-2A	026A, C-2A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building	1	411	Diesel Fuel	2011	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and interstitial alarm; no high level fuel alarm.	1	Within fencing that is not locked, but genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
155-KAUF-3A	155-KAUF-1A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building	1	310	Diesel Fuel	2014	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge, primary liquid level sensors in interstitial space	1	Within fencing that is not locked, but genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
160-HPG-1A	010A	Emergency Generator Day Tank - Fuel Supply	Building 160 - Hourly Parking Garage (Emergency Generator Room - First Floor Across From 1G Parking Area)	1	200	Diesel Fuel	2002	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and primary leak detector; no leak detector for interstitial.	1	Within locked room.	Fuel supplied by UST 004

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
160-HPG-2A	016A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 160 - Hourly Parking Garage (By Terminal Loop Below Skywalk)	1	375	Diesel Fuel	2003	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with basin alarm for fuel detection in secondary containment; has visual gauge.	1	Within locked gate; genset requires keys for access.	Fuel supplied by UST 063.
172-MAC-1A	012A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 172 - MAC Building (By MAA Radio Tower)	1	700	Diesel Fuel	2006	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and high level fuel alarm. ● Spill kit located in Building 172.	1	Within locked gate that requires security badge for access; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
172-MAC-1D	027A	Drum Storage - Stock Oils for Vehicle or Equipment Use	Building 172 - MAC Building (Room 180J)	Up to 25	1,375	Gear Oil, Hydraulic Oil, Motor Oil, Lubricating Oil, Transmission Fluid	--	Steel Drums	● Indoors; doors of room in which drums are stored have concrete lips to prevent drainage outdoors. ● Confirm spill kit location.	N/A	Indoors within secured facility.	N/A
FTF-1A	001A	AST - Firefighting Training Fuel	Fire Training Facility	1	5,000	Jet A	1988 / Modified in 2006	Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	● Single-walled tank within steel containment vessel. ● Equipped with Morrison Clock Gauge.	1	Within locked gate.	Fuel supplied by Contractor hired by Fire and Rescue
FTF-2A	002A	AST - Firefighting Training Fuel	Fire Training Facility	1	10,000	Jet A	2006	Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	● Single-walled tank within steel containment vessel. Drain valve provided on containment vessel (valve observed to be leaking). ● Equipped with Morrison Clock Gauge.	1	Within locked gate.	Fuel supplied by Contractor hired by Fire and Rescue
FTF-3A	030A	AST - Firefighting Training Used Fuel/Waste	Fire Training Facility	1	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	2008	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank within secondary containment concrete berm (FTF-4A located within same berm). Drainage from containment flows through rock bed. ● Equipped with Morrison clock gauge.	1	Within locked gate.	No delivery to this tank -- flow into tank is pumped from the fire training pit located uphill from Tanks 030A and 031A.
FTF-4A	031A	AST - Firefighting Training Used Fuel/Waste	Fire Training Facility	1	20,000	Jet A Fuel / Firefighting Foam / Water Mixture	2008	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank within secondary containment concrete berm (AST 030A located within same berm). Drainage from containment flows through rock bed. ● Equipped with Morrison clock gauge.	1	Within locked gate.	No delivery to this tank -- flow into tank is pumped from the fire training pit located uphill from Tanks 030A and 031A.
105-ARFF-1D	--	Drum Storage	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	Up to 6	330	Oil	N/A	Steel & Poly Drums	● Drums stored within Room 81on secondary containment pallets. ● Spill kit located in Room 81	N/A	Stored in Room 81 of building 105. Only authorized personnel can enter Building 115.	N/A
MELT-1 through MELT-8	--	Mobile AST affixed to each of 8 Snow Melter Units	Stored within Long Term B Parking Lot during off-season, and within the SIDA at General Aviation during De-Icing Season.	8	12,000	Ultra-Low Sulfur Diesel	N/A	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank ● Spill Kit Mounted to Melter Unit	N/A	Stored within Long Term B Parking Lot during off-season, and within the SIDA at General Aviation during De-Icing Season.	MAA
A-1A	025A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - Terminal A (Room AT049A)	1	600	Diesel Fuel	2005	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank; drain inside room. ● Equipped with visual gauge. ● Spill kit in Room ATO49A	1	Within SIDA; security badge required for access. Genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
A-2A	024A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - By Triturator (15R Deicing)	1	430	Diesel Fuel	2005	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge.	1	Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
B-1A	014A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier B - Domestic Terminal (Gate B-7)	1	150	Diesel Fuel	2000	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	● Dike tank provided.	1	Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
C-3A	--	Emergency Generator Sub-Base Tank – Fuel Supply	Pier C – Between Gate C-7 and C tower	1	3,540	Diesel Fuel	2012	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and interstitial alarm; no high level fuel alarm.	1	Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
C-4A	--	Emergency Generator Sub-Base Tank - Fuel Supply	Pier C – Gate C-4	1	800	Diesel Fuel	2013	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and interstitial alarm; Gems series LS-700 level switch.	1	Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
E-1A	047A	Emergency Generator Sub-Base Tank - Fuel Supply	Pier E - International Terminal (public side of terminal)	1	660	Diesel Fuel	2010	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge and high level fuel alarm.	1	Within SIDA and secured area of Terminal that requires Customs security badge.	MAA Field Maintenance (Tank Truck 533)
E-2A	049A	AST - Fuel Supply to AST E-3A (for Emergency Generator)	Pier E - International Terminal	1	3,000	Diesel Fuel	2010	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled integral type tank. ● Connected to Pneumercator liquid level control system; equipped with Morrison clock gauge, mechanical fill prevention, and audible overfill alarm.	1	Within SIDA and secured area of Terminal that requires Customs security badge.	MAA Field Maintenance (Tank Truck 533)
E-3A	008A	Emergency Generator SubBase Tank - Fuel Supply	Pier E - International Terminal (Roof)	1	150	Diesel Fuel	1997	Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	● Indoors; dike tank capacity of 391 gallons. ● Equipped with high level fuel alarm.	1	Within SIDA and secured area of Terminal that requires Customs security badge.	Day Tank, Fuel supplied by AST E-2A.
E-4A	--	Emergency Generator Sub-Base Tank - Fuel Supply	Pier E - International Terminal (Between Gates E-5 & E-7)	1	555	Diesel Fuel	2018	Shop-Fabricated, Double-Walled Steel Tank	● Double-walled tank. ● Equipped with visual gauge , interstitial alarm, and high level fuel alarm.	1	Within SIDA and secured area of Terminal that requires Customs security badge.	MAA Field maintenance (Tank Truck 533)
ONS-1T	T-1	OFOE - Transformer - Electric Transmission	Old North Substation	1	1,545	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
ONS-2T	T-2	OFOE - Transformer - Electric Transmission	Old North Substation	1	1,545	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
NS-1T	T-3	OFOE - Transformer - Electric Transmission	North Substation	1	1,582	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
NS-2T	T-4	OFOE - Transformer - Electric Transmission	North Substation	1	1,299	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
NS-3T	T-5	OFOE - Transformer - Electric Transmission	North Substation	1	1,299	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
SS-1T	T-6	OFOE - Transformer - Electric Transmission	South Substation	1	1,318	Dielectric Fluid (Non-PCB)	2022	N/A	● Active containment.	N/A	--	--
SS-2T	T-7	OFOE - Transformer - Electric Transmission	South Substation	1	940	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
SS-3T	T-8	OFOE - Transformer - Electric Transmission	South Substation	1	1,582	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
105-ARFF-1T	T-9	OFOE - Transformer - Electric Transmission	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	1	224	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
28PS-1T	T-10	OFOE - Transformer - Electric Transmission	28 Pump Station	1	192	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
28DP-1T	T-11	OFOE - Transformer - Electric Transmission	28 Deicing Pad	1	192	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
GLY-1T	T-12	OFOE - Transformer - Electric Transmission	Glycol Facility	1	539	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
TRI-1T	T-13	OFOE - Transformer - Electric Transmission	Triturator Facility	1	353	Dielectric Fluid (Non-PCB)	Unknown	N/A	● Active containment.	N/A	--	--
172-MAC-1E	E-24	OFOE - Hydraulic Elevator - Passenger Transportation	Building 172 - MAC Building (Lobby)	1	120	Hydraulic Oil	Unknown	N/A	● Electric pump.	N/A	--	--
A-A124-1E	E-1	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - A124	1	150	Hydraulic Oil	2004	N/A	● Electric pump.	N/A	--	--
A-AT029-2E	E-3	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT029A	1	145	Hydraulic Oil	2004	N/A	● Electric pump.	N/A	--	--
A-AT029-3E	E-2	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT029	1	125	Hydraulic Oil	2004	N/A	● Electric pump.	N/A	--	--
A-AT108-4E	E-4	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT108	1	140	Hydraulic Oil	2004	N/A	● Electric pump.	N/A	--	--
A-AT108-5E	E-5	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - AT108	1	140	Hydraulic Oil	2004	N/A	● 5-gallon spill bucket.	N/A	--	--

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
A-BT013-1E	E-6	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT013	1	140	Hydraulic Oil	2004	N/A	• 5-gallon spill bucket.	N/A	--	--
A-BT013-2E	E-7	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT013	1	150	Hydraulic Oil	2004	N/A	• 5-gallon spill bucket.	N/A	--	--
A-BT131-3E	E-8	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT131	1	140	Hydraulic Oil	2004	N/A	• Electric pump.	N/A	--	--
A-BT131-4E	E-9	OFOE - Hydraulic Elevator - Passenger Transportation	Pier A - BT131	1	130	Hydraulic Oil	2004	N/A	• Electric pump.	N/A	--	--
B-B112C-1E	E-10	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B - B112C	1	130	Hydraulic Oil	2004	N/A	• 5-gallon spill bucket.	N/A	--	--
B-B149E-1E	E-13	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B - B149E	1	150	Hydraulic Oil	1998	N/A	• 5-gallon spill bucket.	N/A	--	--
B-SKYB12-1E	E-12	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B Skywalk - SKYB12	1	140	Hydraulic Oil	2003	N/A	• Electric pump.	N/A	--	--
B-SKYB13-2E	E-11	OFOE - Hydraulic Elevator - Passenger Transportation	Pier B Skywalk - SKYB13	1	110	Hydraulic Oil	2003	N/A	• 5-gallon spill bucket.	N/A	--	--
C-C135A-1E	E-14	OFOE - Hydraulic Elevator - Passenger Transportation	Pier C - C135A	1	80	Hydraulic Oil	Unknown	N/A	• Electric pump.	N/A	--	--
CT1001-1E	E-28	OFOE - Hydraulic Elevator - Passenger Transportation	South Terminal Host - CT 1001	1	90	Hydraulic Oil	1998	N/A	• 5-gallon spill bucket.	N/A	--	--
CT104K-3E	E-21	OFOE - Hydraulic Elevator - Passenger Transportation	Central Terminal - CT104K	1	130	Hydraulic Oil	2006	N/A	• Electric pump.	N/A	--	--
CT104K-4E	E-22	OFOE - Hydraulic Elevator - Passenger Transportation	Central Terminal - CT104K	1	130	Hydraulic Oil	2006	N/A	• Electric pump.	N/A	--	--
CT106-1E	E-20	OFOE - Hydraulic Elevator - Freight Elevator	Central Terminal - CT106	1	80	Hydraulic Oil	2003	N/A	• Electric pump.	N/A	--	--
CUST-1210-1E	E-29	OFOE - Hydraulic Elevator - Passenger Transportation	U.S. Customs - 1210	1	120	Hydraulic Oil	Unknown	N/A	• 5-gallon spill bucket.	N/A	--	--
CUST-1210-2E	E-30	OFOE - Hydraulic Elevator - Passenger Transportation	U.S. Customs - 1210	1	120	Hydraulic Oil	Unknown	N/A	• 5-gallon spill bucket.	N/A	--	--
D-DX151-1E	E-15	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D - DX151	1	130	Hydraulic Oil	1986	N/A	• 5-gallon spill bucket.	N/A	--	--
D-DY100L-1E	E-18	OFOE - Hydraulic Elevator - Passenger Transportation	Pier DY Tower - DY100L	1	120	Hydraulic Oil	1998	N/A	• 5-gallon spill bucket.	N/A	--	--
D-DY113C-1E	E-19	OFOE - Hydraulic Elevator - Passenger Transportation	Pier DY - DY113C	1	130	Hydraulic Oil	2006	N/A	• 5-gallon spill bucket.	N/A	--	--
D-SKYD11-5E	E-16	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D Skywalk - SKYD11	1	90	Hydraulic Oil	Unknown	N/A	• 5-gallon spill bucket.	N/A	--	--
D-SKYD12-6E	E-17	OFOE - Hydraulic Elevator - Passenger Transportation	Pier D Skywalk - SKYD12	1	100	Hydraulic Oil	Unknown	N/A	• 5-gallon spill bucket.	N/A	--	--
INT-1602-1E	E-31	OFOE - Hydraulic Elevator - Passenger Transportation	Concourse E - Upper Level Ramp - 1602	1	135	Hydraulic Oil	Unknown	N/A	• Electric pump.	N/A	--	--
INT-1703-1E	E-23	OFOE - Hydraulic Elevator - Passenger Transportation	International Red Column - 1703	1	140	Hydraulic Oil	Unknown	N/A	• Electric pump.	N/A	--	--
NT110-1E	E-25	OFOE - Hydraulic Elevator - Freight Elevator	North Terminal - NT110	1	130	Hydraulic Oil	2002	N/A	• Electric pump.	N/A	--	--
OBS-ST105B-1E	E-26	OFOE - Hydraulic Elevator - Passenger Transportation	Observation Gallery - ST105B	1	120	Hydraulic Oil	Unknown	N/A	• Electric pump.	N/A	--	--
ST120-1E	E-27	OFOE - Hydraulic Elevator - Freight Elevator	South Terminal - ST120	1	100	Hydraulic Oil	2002	N/A	• 5-gallon spill bucket.	N/A	--	--
USO-NTE265-1E	E-32	OFOE - Hydraulic Elevator - Passenger Transportation	United Service Organization - NTE265	1	120	Hydraulic Oil	Unknown	N/A	• 5-gallon spill bucket.	N/A	--	--
101-FLV-1R	R-1	OFOE - Regulator - Electrical Current Regulation R/W 10-28 Edge Lights East (30 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-2R	R-2	OFOE - Regulator - Electrical Current Regulation - R/W 10-28 Centerline Lights (50 kW @ 20 A)	Building 101 - Field Lighting Vault	1	165	Oil	Unknown	N/A	• Active containment.	N/A	--	--

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
101-FLV-3R	R-3	OFOE - Regulator - Electrical Current Regulation - R/W 10-28 Touchdown Lights (50 kW @ 20 A)	Building 101 - Field Lighting Vault	1	165	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-4R	R-4	OFOE - Regulator - Electrical Current Regulation - R/W 15R-33L Touchdown Lights (50 kW @ 20A)	Building 101 - Field Lighting Vault	1	90	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-5R	R-5	OFOE - Regulator - Electrical Current Regulation - R/W 15R-33L Touchdown Lights (20 kW @ 6.6 A)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-6R	R-6	OFOE - Regulator - Electrical Current Regulation - T/W R, S (15 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-7R	R-7	OFOE - Regulator - Electrical Current Regulation - T/W U, V (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-8R	R-8	OFOE - Regulator - Electrical Current Regulation - T/W U1 Centerline (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-9R	R-9	OFOE - Regulator - Electrical Current Regulation - T/W P (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-10R	R-10	OFOE - Regulator - Electrical Current Regulation - T/W K, Q, L, and R/W 15L-33R (30 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-11R	R-11	OFOE - Regulator - Electrical Current Regulation - T/W J, M (20 kW)	Building 101 - Field Lighting Vault	1	85	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-12R	R-12	OFOE - Regulator - Electrical Current Regulation - Spare Regulator	Building 101 - Field Lighting Vault	1	90	Oil	Unknown	N/A	• Active containment.	N/A	--	--
101-FLV-13R	R-13	OFOE - Regulator - Electrical Current Regulation - R/W 04-22 Edge Lights (30 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	• Active containment.	N/A	--	--
101-FLV-14R	R-14	OFOE - Regulator - Electrical Current Regulation - T/W F, G and 15R Deicing (20 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	• Active containment.	N/A	--	--
101-FLV-15R	R-15	OFOE - Regulator - Electrical Current Regulation - T/W D1, D2, P2 (15 kW @ 6.6A)	Building 101 - Field Lighting Vault	1	85	Oil	2010	N/A	• Active containment.	N/A	--	--
--	3	UST* - Emergency Generator Fuel Supply	Building 101 - Field Lighting Vault	1	1,500	Diesel Fuel	1993	Double-Walled Steel Tank	• Containment sump, catchment basin, and cathodic protection in place.	N/A	--	--
--	12	UST* - Emergency Generator Fuel Supply	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)	1	2,500	Diesel Fuel	1996	Single-Walled Fiberglass Reinforced Plastic Tank	• Containment sump, catchment basin, and cathodic protection in place.	N/A	--	--
--	6	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	• Catchment basin and containment sump in place.	N/A	--	--
--	7	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	• Catchment basin and containment sump in place.	N/A	--	--
--	8	UST* - Boiler Fuel Supply	Building 114 - Utility Building	1	30,000	Heating Oil	1995	Double-Walled Fiberglass Reinforced Plastic Tank	• Catchment basin and containment sump in place.	N/A	--	--
--	64	UST* - Vehicle Fuel Supply	Building 116 - Field Maintenance	1	8,000	Gasohol	2005	Double-Walled Composite Tank	• Catchment basin, stage II vapor recovery, and containment sump in place.	N/A	--	--
--	65	UST* - Vehicle Fuel Supply	Building 116 - Field Maintenance	1	15,000	Ultra-low Sulfur Diesel Fuel	2005	Double-Walled Composite Tank	• Catchment basin and containment sump in place.	N/A	--	--

New Tank ID	Old Tank ID	Description/Use	Location	Number of Units	Capacity (gallons)	Contents	Year Installed	Construction	Secondary Containment, Overfill Prevention	Category Per STI SP001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
--	10	UST* - Boiler Fuel Supply	Building 120 - Field Maintenance Office	1	2,000	Heating Oil	1993	Double-Walled Steel Tank	● Containment sump, catchment basin, and cathodic protection in place.	N/A	--	--
--	4	UST* - Emergency Generator Fuel Supply	Building 160 - Hourly Parking Garage	1	2,500	Diesel Fuel	1993	Single-Walled Fiberglass Reinforced Plastic Tank	● Containment sump and catchment basin in place.	N/A	--	--
--	63	UST* - Emergency Generator Fuel Supply	Building 160 - Hourly Parking Garage	1	2,500	Diesel Fuel	2004	Double-Walled Fiberglass Reinforced Plastic Tank	● Catchment basin and containment sump in place.	N/A	--	--

* Subject to 40 CFR 280 or 40 CFR 281; therefore, exempt from 40 CFR 112.

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APPENDIX D

FACILITY LAYOUT AND TANK LOCATIONS

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Legend

- Aboveground Storage Tanks
- Underground Storage Tanks
- Transformers
- Drum Storage
- Property Line

BALTIMORE/WASHINGTON INTERNATIONAL Thurgood Marshall AIRPORT

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FACILITY LAYOUT AND TANK LOCATIONS

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APPENDIX E

PHOTOGRAPH LOG

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PHOTOGRAPH LOG

275-Gallon Diesel Fuel Emergency Generator Day Tank (101-FLV-1A)
Inside Field Lighting Vault (Building 101)

100-Gallon (MOBILE-1M), 160-Gallon (MOBILE-2M), and 80-Gallon (MOBILE-3M)
Diesel Fuel Emergency Portable Generators Normally Parked At Cargo
(air side) between Building 112 and Building 113

1,200-Gallon (MOBILE-4M) Diesel Fuel Emergency Portable Generator
Normally Parked Behind Cargo Building 112

2800-Gallon Diesel Fuel Portable Emergency Generator (114-CUP-1M)
Normally Parked At Central Utility Plant - Building 114

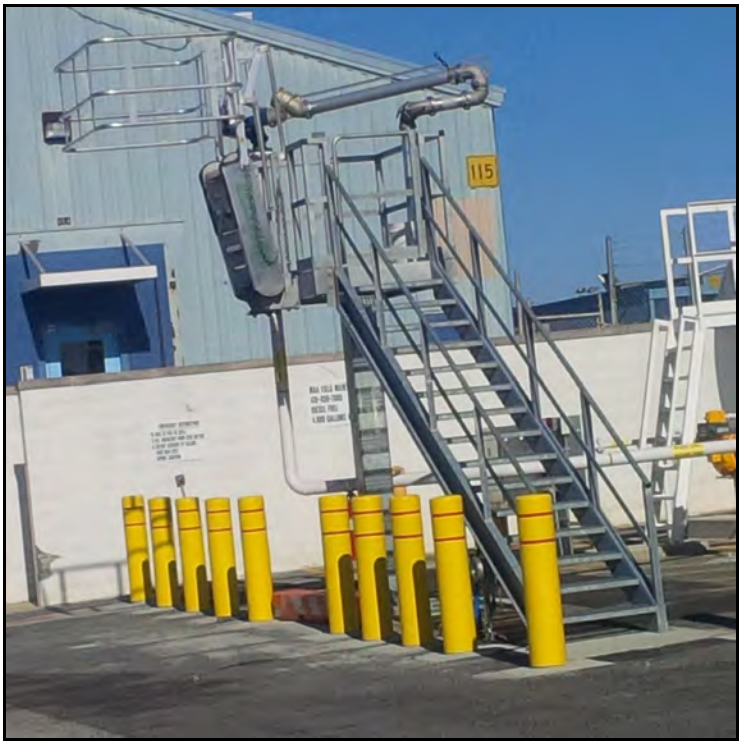
Drum Storage Area (114-CUP-1D) at Central Utility Plant - Building 114

Drum Storage Area (114-CUP-2D) at Central Utility Plant - Building 114

2,700-Gallon Mobile Refueler (Tank Truck 533) Normally Parked At
Field Maintenance Facility between Building 115 and Building 158

375-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (116-FM-2A)
Outside at Field Maintenance (behind Building 116)

4000-Gallon Diesel Fuel Tank (116-FM-4A)
Behind Field Maintenance Building



4,000-Gallon Diesel Fuel Tank (116-FM-4A) Loading Rack
Behind Field Maintenance Building

Drum Storage Area (118-ES-1D) Inside Equipment Building (Building 118)

275-Gallon Tanks for Motor Oil, Automatic Transmission Fluid, and Hydraulic Oil (121-VM-1A through 121-VM-5A) Inside Room 121-1 of Vehicle Maintenance Shop (Building 121)

275-Gallon Used Oil Tank (121-VM-6A)
Inside Vehicle Maintenance Shop (Building 121)

250-Gallon Heating Oil Tank (121-VM-8A)
Inside Room 121-13 of Vehicle Maintenance Shop (Building 121)

Drum Storage Area (121-VM-9D) Inside of
Vehicle Maintenance Shop (Building 121)

3,000-Gallon No. 2 Fuel Oil Tank (123-PS-1A)
Outside Old Paint Shop (Building 123)

500-Gallon Heating Oil Tank (134-VM-1A)
Outside Vehicle Maintenance (Building 134)

60-Gallon Tank for Used Oil from Drained Filters (137-ES-12A)
Heavy Equipment Shop (Building 137)

240-Gallon Tanks for Motor Oil, Automatic Transmission Fluid, and Hydraulic Oil
(137-ES-6A through 137-ES-8A)
Inside Shed behind Heavy Equipment Shop (Building 137)

60-Gallon Tank for Motor Oil (137-ES-10A)
Inside Shed behind Heavy Equipment Shop (Building 137)

60-Gallon Tank for Motor Oil (137-ES-11A)
Inside Shed behind Heavy Equipment Shop (Building 137)

55-Gallon Drums for Used Oil (137-ES-1D)
Inside Heavy Equipment Shop (Building 137)

1,750-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (140-DPG-1A)
Outside Daily Parking Garage

411-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (155-KAUF-2A)
Outside Kauffman Building (Building 155)

310-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (155-KAUF-3A)
Outside Kauffman Building (Building 155)

200-Gallon Diesel Fuel Emergency Generator Day Tank (160-HPG-1A)
Inside Hourly Parking Garage (Building 160)

375-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (160-HPG-2A)
By Terminal Loop below Skywalk

700-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (172-MAC-1A)
By MAA Radio Tower Outside MAC Building (Building 172)

55-Gallon Drums of Stock Oils for Vehicle and Equipment Use (172-MAC-1D)
Inside Room 180J of MAC Building (Building 172)

5,000-Gallon Jet A / Diesel Fuel Mixture Tank (FTF-1A)
At Fire Training Facility

10,000-Gallon Jet A / Diesel Fuel Mixture Tank (FTF-2A)
At Fire Training Facility

20,000-Gallon Jet A / Diesel Fuel / Firefighting Foam / Water Mixture Tanks
(FTF-3A and FTF-4A) At Fire Training Facility

Mobile AST (MELT-1) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-2) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-3) affixed to Snow Melter Unit in the Long Term B Parking Lot

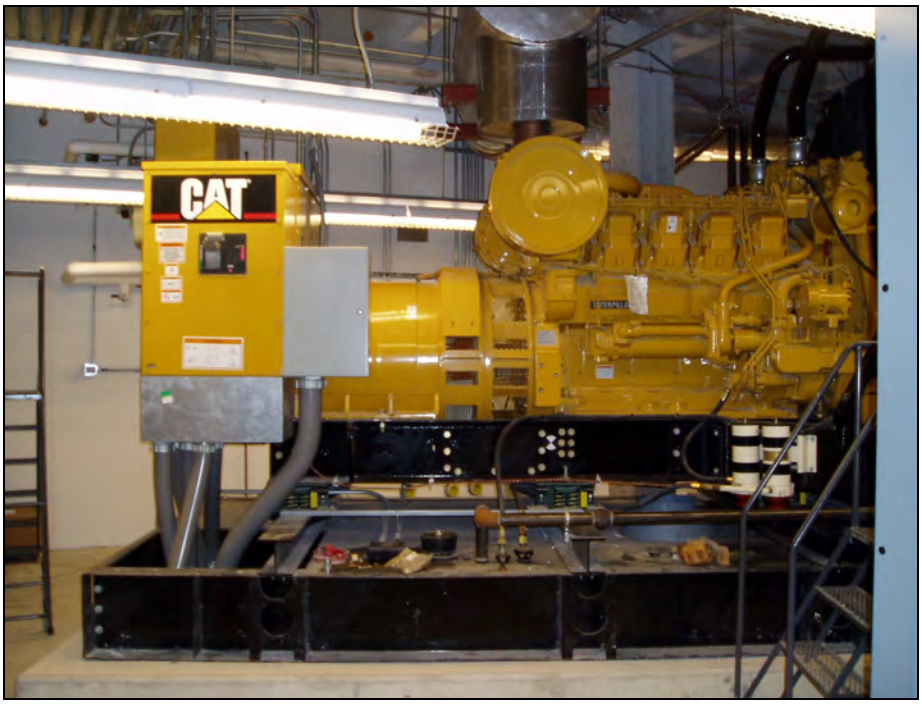
Mobile AST (MELT-4) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-5) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-6) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-7) affixed to Snow Melter Unit in the Long Term B Parking Lot

Mobile AST (MELT-8) affixed to Snow Melter Unit in the Long Term B Parking Lot



600-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (A-1A)
Inside Room AT049A at Pier A

430-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (A-2A)
Adjacent to Taxiway A by Triturator

150-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (B-1A)
At Pier B (Domestic Terminal)

3540-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (C-3A)
At Pier C (Between Gate C-7 and C-Tower)

800-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (C-4A)
At Pier C (Gate C-4)

660-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (E-1A)
At Pier E - International Terminal (public side of terminal)

3,000-Gallon Diesel Fuel Supply Tank (E-2A) to Emergency Generator Day Tank E-3A at Pier E (International Terminal)

150-Gallon Diesel Fuel Emergency Generator Day Tank (E-3A) On Roof of Pier E (International Terminal)

555-Gallon Diesel Fuel Emergency Generator Sub-Base Tank (E-4A)
At Pier E - International Terminal (between Gates E-5 & E-7)

Transformers at Old North Substation (ONS-1T, ONS-2T)

Transformers at North Substation (NS-1T, NS-2T, NS-3T)

Transformers at South Substation (SS-1T, SS-2T, SS-3T)

Transformer at Aircraft Rescue and Firefighting Facility (105-ARFF-1T)

Transformer at 28 Pump Station (28PS-1T)

Transformer at Glycol Facility (GLY-1T)

Transformer at Triturator Facility (TRI-1T)

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APPENDIX F

TENANTS WITH EMERGENCY PLANS

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TENANTS WITH EMERGENCY PLANS

Tenant	Address	Contact	Emergency Plan Type
Menzies Aviation	1001 Air Cargo Service Drive Baltimore, MD 21240	Kenya Langford Fuel Facility General Manager	FRP SPCC
Fraport	7062 Friendship Road Baltimore, MD 21240	Brian Basener Director of Operations	SPCC
Next Car	7440 New Ridge Road Hanover, MD 21076	Glenn R. Price General Manager	SPCC
PrimeFlight Aviation Services	7035 Elm Road Baltimore, MD 21240	Erica Brown General Manager	SPCC
Signature Flight Support	2 Aaronson Drive Baltimore, MD 21240	Pablo Espitia General Manager	SPCC
Sixt Car Rental	7432 New Ridge Road Hanover, MD 21076	Jacob Ironsides Manager	SPCC
Southwest Airlines Company, Bulk Fuel Storage Facility	1001 Air Cargo Service Drive Baltimore, MD 21240	Kenya Langford Fuel Facility General Manager	SPCC

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APPENDIX G

MDE SPILL REPORT FORM

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MARYLAND DEPARTMENT of the ENVIRONMENT
1800 WASHINGTON BOULEVARD
BALTIMORE , MARYLAND. 21230
(410) 537-3000
1-800-633-6101 (within Maryland)
http://www.mde.state.md.us

State of Maryland
Department of the Environment
Emergency Response Division
1800 Washington Blvd. Suite #105
Baltimore , Maryland. 21230-1721

24 HOUR SPILL REPORTING
(Toll Free) 1-866-633-4686
EMERGENCY RESPONSE OFFICE
(410) 537-3975
RESPONSE OFFICE FACSIMILE
(410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (COMAR 26.10.01.03) "A PERSON DISCHARGING OR PERMITTING THE DISCHARGE OF OIL, OR WHO EITHER ACTIVELY OR PASSIVELY PARTICIPATES IN THE DISCHARGE OR SPILLING OF OIL, EITHER FROM A LAND BASED INSTALLATION, INCLUDING VEHICLES IN TRANSIT, OR FROM ANY VESSEL SHIP OR BOAT OF ANY KIND, SHALL REPORT THE INCIDENT IMMEDIATELY TO THE ADMINISTRATION." " THE REPORT OF AN OIL SPILL OR DISCHARGE SHALL BE MADE TO THE ADMINISTRATION IMMEDIATELY, BUT NOT LATER THAN TWO HOURS AFTER DETECTION OF THE SPILL." *** * * *FIRE DEPARTMENT PERSONNEL , SEE REVERSE* * * ***

ADC Map Coord _____

Date of spill: Mo. __ __ / Day __ __ / Yr. 20 __ __ Time of spill: __ __ __ __ Hours (24 hour clock)

Fire Department Report No.: _____ Police Department Report No.: _____

Location of spill - Street address:
_____
_____
City / Town _____
MD County _____
Zip _____

Product Name:
_____
(Indicate Gasoline, Diesel, Heating Oil, Chemical Name or UN ID etc.)
Container Type:
_____
(Indicate AST, UST, Transformer, Saddle Tank, Drum etc.)

Capacity of Vessel, Vehicle or Tank:
_____ Gallons
Amount ***IN*** Vessel, Vehicle or Tank:
_____ Gallons
Estimated ***Amount Spilled:***
_____ Gallons

Transportation Incident:
_____
(Indicate Type of Auto, Truck, Train, Aircraft or Watercraft etc.)
Fixed Facility Incident:
_____
(Indicate Type of Industrial , Commercial , Residential etc.)

- ☐ Contained on Land
- ☐ Entered Storm Drain or Ditch
- ☐ Entered Sanitary Sewer
- ☐ Is Below Ground
- ☐ Entered surface waters: _____ (Waterway Name)

Vehicle Tag Number and State:
_____ _____
DOT or ICC MC Number:
_____
Hull Numbers and Name**:**
_____ _____

Person(s) Responsible for Spill: (Driver if Vehicle)
Name:_____
Address:_____
_____
City/State: _____ Zip: _____
Phone: _____
Drivers Lic.No._____ State:_____

Be Sure to Complete Both Sections
Don't Forget to Sign Below

Company Responsible for Spill: (N/A if private citizen.)
Name:_____
Address:_____
_____
City/State: _____ Zip: _____
Phone: _____
Fed. Employer ID No. _____

Cause of Spill:
- ☐ Motor Vehicle Accident
- ☐ Personnel Error/Vandalism
- ☐ Tank/Container/Pipe Leak
- ☐ Mechanical Failure
- ☐ Transfer Accident
- ☐ _____

Identify All Groups that *Participated* in Spill Mitigation :
- ☐ Responsible Party
- ☐ **MDE ERD** # _____ # _____
- ☐ Federal : _____
- ☐ State : _____
- ☐ Local : _____
- ☐ Contractor: _____

Materials used *by You* to contain/clean-up spill:
Sorbent Dust: _____ Bags
Sorbent Pads: _____ each or bales
Sorbent Booms: _____ each or bales
Sorbent Sweeps: _____ each or bales
Overpack Drums : _____ ea. Steel or Poly
Other:_____

Responsible Party : Describe circumstances contributing to the spill. (Additional space on back) [Optional for FD or Gov't Personnel]

Responsible Party : Describe Containment , Removal and Clean-up operations , including disposal. (Additional space on back) [Optional for FD or Gov't Personnel]

Responsible Party : Procedures, Methods and Precautions instituted to prevent recurrance of the spill. (Additional space on back) [Optional for FD or Gov't Personnel]

THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED.

Print Name: _____ **Company or Fire Department:**_____
Address : _____ **City / State / Zip** _____
Telephone _____ **Signature** _____

MARYLAND DEPARTMENT of the ENVIRONMENT
1800 WASHINGTON BOULEVARD
BALTIMORE , MARYLAND. 21230
(410) 537-3000
1-800-633-6101 (within Maryland)
http://www.mde.state.md.us

State of Maryland
Department of the Environment
Emergency Response Division
1800 Washington Blvd. Suite #105
Baltimore , Maryland. 21230-1721

24 HOUR SPILL REPORTING
(Toll Free)1-866-633-4686
EMERGENCY RESPONSE OFFICE
(410) 537-3975
RESPONSE OFFICE FACSIMILE
(410) 537-3932

PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION; (Environmental Article 4-401 (i) ; the "Person Responsible for the discharge includes , The owner of the discharged oil , The owner , operator and / or the person in charge of the oil storage facility, vessel , barge , or vehicle involved at the time of or immediately before the discharge ; and Any person who through act or ommission , causes the discharge."

**** * * Fire Department * * * and Local or State Government Agencies : Unless you are the responsible party as defined above , Please indicate " Unknown " in any box reuesting information that is unknown or unavailable to you at the time of report.***

This Space for continuation and additional information.

THE UNDERSIGNED CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF HIS OR HER KNOWLEDGE AT THE TIME THE REPORT WAS COMPLETED.

Print Name: _____ **Company or Fire Department:** _____
Address : _____ **City / State / Zip** _____
Telephone _____ **Signature** _____

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APPENDIX H

SPILL HISTORY LOG (2017-2022)

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Baltimore/Washington International Thurgood Marshall Airport
Fuel Spill Records (Operations Spill Log and FRS Incident Logs Combined)
June 2017 - June 2022

Date	Time	Incident Location	Incident Description	Gallons Spilled	Incident Information (OPS Log)	FRD Report Number or OPS Log
6/12/2017	14:18	j	**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A **[GALLONS SPILLED]**: 5 Gallons **[COMMENT]**: Southwest airlines B737 jet overflowing caused spill.	**5**	CO 43 UNITS ARRIVED WITH A FUEL SPILL AS A RESULT OF OVER FILLIONG THE FUEL TANKS ON A B737 OPERATED BY S/W AIRLINES TAIL NUMBER N402WN. CREWS WERE IN THE READY POSITION AS ASIG EMPLOYEES CLEANED THE SPILL. NO FUEL TRAVELED BEYOND THE SPILL POINT AND ALL WAS CONTAINED AND CLEANED UP.	
7/9/2017			**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/Gate E8 **[GALLONS SPILLED]**: 1 Gallons **[COMMENT]**: E Pier Ramp E8	**1**	Eng, SQ, R 432 & R 431 all went towards A 8 per dispatch in station, SC 4 Advised it was E 8. SC 4 continued to E 8 and arrived with PM 43 . PM 43 was on location first advised it was a small spill and already covered by absorbent and being cleaned up by ASIG employees.	
7/20/2017	13:21		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/RP Gate D29 **[GALLONS SPILLED]**: 10 Gallons **[COMMENT]**: Alerted for a fuel spill. Arrived and found approximately 10 gallons of jet A already covered. Stood by until it was cleaned up and units went in service	**10**		
8/3/2017	12:34		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/RP Gate D29 **[GALLONS SPILLED]**: 10 Gallons/ C-Pier Ramp C11 **[COMMENT]**: Alerted for a fuel spill. Arrived and found approximately 10 gallons of jet A already covered. Stood by until it was cleaned up and units went in service	**10**	Q 43 arrive C 11 with jet fuel spill Approx 10 gallons. fully contained by SWA ramp personnel. Personnel advise wing over fuel was the cause. SWA Aircraft Maint on scene. R 432 stage covering fuel spill and personnel. DC 43 arrive passing command to Q 43. Operations on scene	
8/11/2017	12:41		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/C Pier Ramp, Gate C-7 **[GALLONS SPILLED]**: 20 Gallons **[COMMENT]**:	**20**	Units dispatched to gate C-7 for a reported fuel spill. Units arrived on location to find about 20 gallons of fuel un coved on the ground from fueling aircraft and company personnel in the process of clean up. During the initial investigation, the fuel truck driver accidentally started filling aircraft again spilling another 10-20 gallons of fuel on the ground. Company personnel covered fuel spill to allow aircraft to push back. Units remained on scene for approx 40 min while spill was cleaned up and went in service.	
8/13/2017	12:42		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/A Pier Ramp, Gate A-2 **[GALLONS SPILLED]**: 25 Gallons **[COMMENT]**:	**25**	Dispatched for a large fuel spill at gate A-2. QNT43 and R432 arrived and found a 25 gal spill under the wing of the aircraft parked at A-2 that was 85% covered with the rest being actively covered. Wing tank had been overfilled. Units not on scene yet were reduced to cold, D/C 43 and TW43, and all units stood by until the spill was fully covered and mostly cleaned up, then units were placed in service.	
8/21/2017	14:45		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/North Side Fuel Farm **[GALLONS SPILLED]**: 10 Gallons		SCMD placed assignment available and all	

			[COMMENT]: Spill happened while transferring contaminated JET A fuel into a plastic tote from a fuel truck and hose popped off leaking approximately 10 gallons on the ground.	**10**	COMD placed assignment available and all units returned to quarters safely	
8/28/2017	18:06		**[FUEL/OIL/LAV SPILLS]**: Fuel **[FUEL TYPE/LOCATION]**: Jet A/RP Gate C-6 **[GALLONS SPILLED]**: 20 Gallons **[COMMENT]**: Spill happened due to over fueling the aircraft.	**20**	Responded for a fuel spill at C9 . Units arrived to find about 20 gallons of fuel spills on the ramp from over fueling the aircraft. Units assisted ground crew with clean up. Units cleared. American Airlines N963TW Fuel Truck #1033	
10/1/2017	18:16	Gate D16	BWI FRD responded to a possible 15 gallon **Jet A** fuel spill at Gate D16 due to an overflow shutoff valve failure. Spill was only a 2 gallons and was contained at 1820L. No drains affected.	**2**	1. BWI FRD responding to a possible 15 gallon fuel spill at Gate D16. PORT 12 responding. Airport OPS will keep you updated. 2. Fuel spill a Gate D16 was only 2 gallons and is contained at 1820L.. No drains affected. Cleanup almost completed.	OPS Log
10/10/2017	8:45	Gate D37	Overwing fueling resulted in approximately 2 gallon spill.	**2**	Cleaned up with brooms, shovels, and absorbent. Airport OPS remained on scene, BWI FRS not dispatched.	OPS Log
10/11/2017	23:11	Gate B13 Ramp	SWA reported **Jet A** fuel spill to AOP's. Belt loader leaked fuel onto ramp. Unit was removed from service. No drains affected. SWA cleaned spill. 3-5 gallons spilled.	**5**		OPS Log
10/20/2017	15:00	Fuel Farm	Swissport truck 2258 was in the process of receiving a fuel load when fuel started leaking from under truck. Swissport employees was able to grab a large container to catch most of the fuel. In total approximately 5-10 gallons of **Jet A** spilled and approximately 60 gallons was collected in the container from the truck. The fuel collected was then picked up by vacuum.	**10**	Granular absorbent and quick dry fuel mats	OPS Log
10/31/2017	7:29	F9	The fueler was fueling the aircraft **Jet A** when he saw the overflow light illuminate on the fueling panel of the aircraft. After the fueler saw that, he discontinued the fueling and advised the mechanic who then inspected the panel. After the light went out, fueling continued. A few seconds later fuel started to vent form the right wing vent.	**10**		OPS Log
11/16/2017	10:38	A1 Taxiway	SWA 737 venting fuel on the way to RWY 28. Appx. 3-5 gallons of **Jet A**	**5**		OPS Log
11/22/2017	8:11	Gate B2	Faulty tank shutoff resulted in 15 gallons of **Jet**	**15**	Absorbent was used.	OPS Log
11/22/2017	14:01	Gate B2	Another **Jet A** fuel spill from the same Southwest aircraft at Gate B-2. This time it vented from the right wing but was not being fueled. It left a narrow path of fuel down to the roadway but has been addressed quickly with absorbent and being swept up. No response deemed necessary from any agencies	**2**		OPS Log
12/3/2017	9:48	Fuel Farm Storage Tank #2	**Jet-A** vented during fueling of Storage Tank #2 at Fuel Farm. Spill is contained. ARFF/OPS on scene. Menzie's is conducting clean up. No drains affected. Amount now reported to be an estimated 150-200 gallons. Environmental has been advised and is enroute to conduct an assessment.	**200**		OPS Log

1/26/2018	9:47	Gate D23	4 gallons of **Jet A**. Fuel Spill at Gate D-23. Approximately 4 gallons. Delta aircraft N920DE. Menzies applied absorball and is sweeping/recovering product. No drains affected.	**4**	Absorball - sweep and recover product	OPS Log
1/29/2018	18:02	Gate C6	Faulty shut-off valve in left wing fuel tank.	**15**	Placed Absorball on ground over fuel. Swept/shoveled product into steel drum.	OPS Log
2/3/2018	7:16	B/C Alley adj. to C-4	AAL flight 1351 dest. to DFW pushed off gate C-4 and during startup, **Jet A** fuel leaked from engine. Flight returned to gate C-4. AAL applied absorbent and clean up completed. No drains affected.	**1**	AAL applied absorbentand spill clean up completed.	OPS Log
2/3/2018	15:14	A9	On 3FEB17 @ 1420L **Jet A** Fuel released from hydrant system at Gate A9 due to ruptured seal. FRD, OPS, SWA, Swissport, & Menzies responded. FRD reported appr. 30 Gallons spill. Clean up was completed by Swissport and SWA. Incident secured @ 1510L.	**30**		OPS Log
2/7/2018	15:30	FMX Bldg. 120	Fuel storage tank at FMX slightly over fueled resulting in a **Gasoline** spill of approx 5 gallons in grassy area next to tank. No drains affected. Ops, ARFF and MES on scene but scene is secure	**5**		OPS Log
2/11/2018	12:28	Gate C5	Aircraft VTO failure. C-5 A/C N896 1200L Approximately 2 gallons vented from A/C right wing. The majority of the **Jet A** fuel was contained on land. Approximately <1 gallon of fuel did make it in the drain behind C-5 due to meteorological conditions (rain).	**2**	Absorbent and barrel	OPS Log
2/17/2018	7:31	B/C Alley Spot 2	AA Flight 1521 AC N956 after push back purged @ 1 gallon of **Jet A** fuel from the #1 engine. Location on the ramp B/C alley spot 2. No drains affected.	**1**	Absorbent and barrel	OPS Log
3/4/2018	9:01	F-16 Freight Ramp	**Jet A** fuel Spill from Aircraft N412SN, Western Global MD-11 on spot F-16 operating for UPS vented approx. 10-15 gallons for unknown reasons. No drains affected. Clean up underway.	**15**	absorbant/pick up	OPS Log
4/11/2018	23:57	Fuel Pump at Island 3 (Fuel Farm)	At 2315 airport operations was notified by Kenya Langford (Menzies) of a fuel spill, <5 gallons, which occurred at 2130. The driver attempted to drive truck GF-1 off with the fuel hose still attracted to the fill pump. As a result the fuel pump at island 3 was damaged. GF-1 was removed from service. The Fire Rescue Dept. was notified at 2400.	**5**	Menzies used speedy dry to clean up the fuel spill.	OPS Log
4/14/2018	17:00	Signature Flight Support GA Ramp	Pilot error; miscalculated transfer of fuel from right wing to left wing	**10**	SFS used dry material to absorb spill.	OPS Log
5/4/2018	12:27	Gate A11	Vented approx 2 gallons of **Jet A** fuel from right wing vent during fueling. Cause unknown. KBWI 041654Z 23011KT 10SM FEW180 BKN250 31/16 A2992 RMK AO2 SLP132 T03060156	**2**	Absorbant	OPS Log
5/4/2018	13:11	Fuel Farm Pit#3	Overfilled **Gasoline** Fuel Truck KBWI 041654Z 23011KT 10SM FEW180 BKN250 31/16 A2992 RMK AO2 SLP132 T03060156	**5**	Absorbant	OPS Log
5/7/2018	11:04	F-18A	Vented from overflow (**Jet A**)	**15**	Absorbant	OPS Log
5/12/2018	13:06	Ramp Gate D-28	Right wing vent (**Jet A**)	**3**	Absorbant Granules	OPS Log

5/29/2018	13:10	Ramp Gate D11	Cause is unknown but likely from a ground vehicle servicing with **diesel** fuel. The spill remained for awhile and was first improperly cleaned with sand and water. Menzies cleaned the spill at approximately 1300L.	**3**	Absorbant Granules	OPS Log
6/17/2018	13:19	D-29	**Jet A** Vented from right wing. Apparently a vent was open already. The rest of the fuel load was completed with no venting.	**8**	Absorbant	OPS Log
6/18/2018	6:40	Gate A-10	Fuel vented out of right wing (**Jet A**).	**5**	Absorbant	OPS Log
6/28/2018	14:20	D-29	Right wing vent overfill (**Jet A**).	**5**	Absorb-all. Swept and placed in metal drum.	OPS Log
7/4/2018	5:47	C7	**Jet A** spill from wing vent.	**3**	sweep	OPS Log
7/5/2018	21:44	Cargo Ramp Gate F-8 (Fed Ex)	Right wing vent overflow failure. **Jet A** fuel spil	**4**	Absorb-all.	OPS Log
7/14/2018	7:50	Gate A11	INOP Gauge. Flight Deck to Wing radio fueling miscommunication resulting in an overfuel. **Jet A** fuel spill.	**10**	Absorbent and barrel	OPS Log
7/19/2018	16:41	C-13	**Jet A** fuel spill due to overfill.	**12**	Sta-Dry, sweep/shovel into drums	OPS Log
7/25/2018	15:32	Gate D-25	Aircraft vented out of right wing. **Jet A** fuel spil	**2**		OPS Log
7/27/2018	14:22	Gate D-25	Wing overflow shut-off valve malfunction. **Jet A** fuel spill.	**5**	Absorbent and barrel	OPS Log
7/28/2018	19:14	D-23	Small **Jet-A** spill from right wing vent DAL 737 (N392DA) at gate D-23. Approx spill size less than 8 gallons. Spill contained with OPS on scene and ARFF responding.	**8**	DAL/Menzies conducting clean up. No drains effected.	OPS Log
7/31/2018	18:00	D21 Ramp	Presumed to be from Delta GSE. Approximately 4 quarts of oil. No drain affected at the time of discovery.	**1**	Absorbant	OPS Log
8/6/2018	11:02	Gate A-5	**Jet A** Fuel vent from F/O side wing.	**30**	SWA reporting fuel spill at gate A-5. SWA aircraft N8533S vented fuel from right wing. No drains affected. FRD recalled due to vent continual leak. Area is contained.	OPS Log
8/11/2018	19:31	Ramp at Gate A6	Fuel Spill at Gate A6. Quantity 10 Gallons of **Jet A**. Southwest Flt #5082. Fuel overflow from left wing. FRD and Ops on scene. Cleanup (Swissport). No drains affected.	**10**		OPS Log
8/22/2018	19:30	Gate A-9	Fuel Cart Overflow Sensor Failure. **Jet A** fuel s	**5**		OPS Log
8/23/2018	5:25	Gate D-25	Aircraft valve malfunction. **Jet A** fuel spill.	**15**	Absorbal	OPS Log
8/26/2018	13:56	Gate A-9	Small **Jet A** fuel spill at A9.	**5**	Dry absorbent	OPS Log
8/28/2018	15:55		Residual fuel (**Jet A**) in the line spilled out while disconnecting fueling cart hose from plane	**1**		OPS Log
9/1/2018	8:29	Gate A2	Aircraft overfilled by Swissport fueler. Jet A fuel spill.	**25**		OPS Log
9/6/2018	21:42	North Cargo Ramp Gate F-8	Left wing vent overflow. Jet A fuel spill.	**2**	Absorb-all and metal drum	OPS Log
9/11/2018	2:18	Fuel Farm	Leaking hose resulted in **Gasoline** spill.	**10**	Absorbent	OPS Log
9/12/2018	10:01	Fuel Farm	**Jet A** fuel Spill occurred at some time within the last day or 2 as the scene was observed by Airport Operations this morning. Prior spill was unacceptably cleaned. Swissport will dispatch personnel to clean and dispose in a proper manner. This was a result of a truck to truck transfer.	**52**	Absorb-all and metal container.	OPS Log
10/31/2018	13:04	Gate B-7 Ramp	**Jet A** fuel spill from Overflow vent from right wing.	**10**	Spill is cleaned up and the aircraft has taken a delay until the top of the hour (20 minutes)	OPS Log

11/21/2018	15:06	TWY Behing Gate B12	**Jet A** fuel Spill discovered on airfield inspection. No notification from SWA when it actually occurred. SWA claims to not have known about the spill.	**2**	Absorbent	OPS Log
12/15/2018	13:21		**Grease** spill by Bradford/Genco at Dumpster between D-7 and D-20.	**15**	Clean Venture for clean up. MES is also responding to assess situation. No drains affected.	OPS Log
2/10/2019	11:45	Gate C11	During fueling the wing vented and spilled less then 10 gallons of **Jet A** on the ramp.	**10**	sweep and place in 55 gallon drum	OPS Log
2/12/2019	9:15	Deice Pad Lane 4	The Swissport fuel truck overfilled the SWA Deice Vehicle, resulting in less than 1 gallon **gasoline** spill	**1**	Absorbal	OPS Log
2/22/2019	2:47	Fuel Farm	Hose connecting fuel truck to hydrant station ruptured, resulting in **Jet A** fuel spill.	**20**	Port 13 and BWI FRD responded. No drains were affected.	OPS Log
2/28/2019	4:26	F18 Parking Spot	Faulty valve on the truck caused about 2 gallons of **JET A** fuel spill.	**2**	Absorbant	OPS Log
3/7/2019	12:00	Freight Ramp Spot F8	Wing vented the **Jeta A** fuel.	**10**	FRD and OPS responded. No drains effected	OPS Log
3/8/2019	13:08	A3	SWA Ops reported that a hydrant cart on A3 leaked a small amount of **Jet A** fuel	**1**	Absorbant	OPS Log
3/11/2019	17:00	Gate D4	A leak from the bottom of the GPU resulted in appx. 2 gallons of diesel fuel spill.	**2**	Pads, absorbent.	OPS Log
3/18/2019	14:39	Ramp adj C8 inside Vehicle service road	Over filled Fuel Truck apparently due to a faulty sensor, resulting in **Jet A** fuel spill.	2	Absorbant	OPS Log
3/28/2019	0:15	D10 Ramp	**Jet A** Fuel spilled from Menzies fuel truck due to leaking top nozzle.	10	Spill contained using Absorbant, no drains effected.	OPS Log
4/2/2019	10:26	B14	**Jet A** fuel leak from aircraft right wing vent.	15	Some fuel entered drain.	OPS Log
4/3/2019	19:08	E4	FSS GSE parked on E4 leaking hydraulic fluid.	1	Absorbant pads	OPS Log
4/22/2019	22:22	Gate A10	**Jet A** Fuel spill from right wing overflow of aircraft N430WN. Exact cause unknown.	10	Absorbant, shovel p/u and disposal.	OPS Log
4/29/2019	14:20	Gate A2	**Jet A** Fuel vented from right wing after valve was closed.	2	Spill kit	OPS Log
5/3/2019	5:00	C13	Swissport was fueling Southwest belt loader PS01 (BWI Decal #0055) when the nozzle jammed. Attempting to fix the jam, approximately 3 gallons of **diesel fuel** spilled on the ramp.	3	No drains or soft ground were affected. Clean up was taken care of by Swissport.	OPS Log
5/4/2019	18:18	Gate A2	**Jet A** fuel overflow from aircraft rightwing vent.	2	Absorbant/shovel	OPS Log
5/7/2019	12:32	B4	Overfilled aircraft leaked **Jet A** fuel.	12	Sppedy dry	OPS Log
5/7/2019	13:58	FMX Yard	Line blew while delivering **Hydraulic Fluid**.	50	FMX cleaned-up the spill.	OPS Log
5/7/2019	16:25	Gate A10 Ramp	Aircraft resulted in 5-10 gallons of **Jet A** fuel sp	10	Absorbant	OPS Log
5/12/2019	10:24	A4	**Jet A** fuel spill from aircraft left wing vent.	15	Sppedy dry	OPS Log
5/20/2019	21:57	B15	Fueler started fueling process before power to A/C was available. This caused venting out of wing as valves were not operational. **Jet A** Fuel vented from right wing.	10	No drains affected.	OPS Log
5/26/2019	9:28	C11	Aircraft overflow valve failure resulted in **Jet A** fuel spill.	8	Sand and absorption pads	OPS Log
5/26/2019	16:01	Gate B9	Faulty check valve resulted in **Jet A** fuel leak.	8	Absorbant/shovel and remove	OPS Log
6/7/2019	6:47	Ramp D15	**Jet A** fuel spill due to faulty valve on aircraft.	5	Absorbent	OPS Log
6/8/2019	7:40	B5	Faulty gauge resulted in **Jet A** fuel leak.	5	Quick dri, absorbent	OPS Log
6/11/2019	17:27	Ramp at Gate D13	Overfuel. **Jet A** fuel Vent from the left wing.	15	Absorbent	OPS Log
6/18/2019	17:09	Ramp at Gate A11	Approximately 5 to 10 gallons OF **Jet A** fuel vented from a Southwest 737-700.	10	Southwest already has absorbent on the spill and it cleaning it up.	OPS Log
6/19/2019	19:56	North Cargo Spot F3	**Jet A** fuel vented out of aircraft left wing.	2	Absorball	OPS Log

6/20/2019	14:29	D29 Ramp	Faulty part in fuel system resulted in 5-10 gallons of **Jet A** fuel spill.	10	Absorbal	OPS Log
6/27/2019	10:45	A9 Jetway	**Jet A** fuel spill at A9 Jetway.	20	Absorbent	OPS Log
6/28/2019	7:00	F5	Fueler error resulted in 15 gallons **Jet A** fuel sp	15	Absorbent and barrel	OPS Log
7/7/2019	6:50	C1 Ramp	Fuel spill caused by user error at C1 resulted in 15 gallons **Jet A** fuel spill.	15	No drains affected Menzies cleaned up.	OPS Log
7/23/2019	10:17	D11 Ramp Area	Approximately 10 gallons of **Jet A** fuel spill came from a Menzies fuel truck that had a broken fuel line gasket.	10	No drains affected. Light rain falling and wet ramp is causing fuel spill to expand.	OPS Log
7/26/2019	17:45	F17	20 gallons of **Jet A** fuel spill / F 17/ Omni 777 / N846AX	20	Clean up by Menzies / No drains affected.	OPS Log
7/27/2019	12:25	C-7 Ramp	Small **hydraulic fluid** spill at Gate C-7. Same truck that spilled hydraulic fluid at D-29.	5	Truck has been taken out of service. LSG conducting clean up.	OPS Log
7/27/2019	12:41	D-29/33	Small **hydraulic fluid** spill at Gate D-29. Same truck that spilled hydraulic fluid at C-7.	5	Truck has been taken out of service. LSG conducting clean up.	OPS Log
8/2/2019	5:49	Between B-13 and B-15	A large **Jet A** fuel spill has occurred at Gate B13. Left wing of Southwest aircraft N747SA vented an estimated 25-50 gallons. Some fuel appears to have made it into drains.	50	MES notified and is responding.	OPS Log
8/6/2019	19:00	SWA Gate B-4	SWA Jet A fuel spill at gate B-4.	7	FRD and OPS responded. Contained and cleaned up.	OPS Log
8/10/2019	11:35	B/C Alley & TWY U1	SWA 4934 spilled 5 gallons of **Jet A** fuel in the B/C Alley and 2 gallons on TWY U1.	7	FRD on scene Swissport conducting clean up. No drains affected.	OPS Log
8/17/2019	7:30	D13 United	Port 15 & Port 16 responded to a small **gasoline** spill at D13 (United)	1	Port 15 & Port 16 responded to a small gasoline spill at D13 (United)	OPS Log
8/18/2019	5:52	Apron D-47	**Jet A** fuel spill unknown time unknown quantity		Menzies contacted to clean up and will bill Southern Airways.	OPS Log
8/21/2019	17:08	Apron D-15	20 Gallon **Jet A** fuel spill from Aircraft.	20	Scene secured aircraft will be towed to F22 for repair.	OPS Log
8/22/2019	6:23	Gate D-13 Ramp-side	15 gallon **Jet A** fuel spill vented out of left wing of an UAL B-737-900 Aircraft parked at GATE D-13 Flt #270 (N37408).	15	No drains affected. Cleanup in progress.NOTE: This is the same aircraft that had a fuel spill that vented out of the left wing yesterday. (Possible transfer valve issue)	OPS Log
8/29/2019	21:40	Menzies Fuel Truck	Menzies Fuel Truck has a puncture hole on side of tanker area. Large amount of **Jet A** fuel being release onto ramp.	5500	BWI FRD and Airport Operations on site. Menzies currently trying to stop fuel from leaking and applying absorbal to the area.	OPS Log
9/18/2019	13:27	Gate C-11 Ramp	4 gallons Jet-A fuel vented out the right wing of SWA A/C N439WN parked at Gate C-11.	4	Absorball applied and contained. No drains affected.	OPS Log
9/23/2019	11:44	C1 Ramp	Approximately 10 gallons of **Jet A** fuel spilled from an AAL Tug.	10	BWI Fire Rescue and Airport Ops responded.	OPS Log
9/27/2019	7:30	D-20	**Hydraulic fluid** leak from sky chef truck at D 2	3	Menzies assisting on clean up.	OPS Log
10/6/2019	19:47	Ramp at Jetway D-13	A small 5 gallon **Jet A** fuel spill was reported on the ramp at Gate D-13 when the hose broke off from the fuel truck.	5	The spill has been contained and cleaned.	OPS Log
10/6/2019	21:48	B-11 Rampside	Malfunctioning aircraft fuel gauge caused a 5 gallon of **Jet A** fuel spill.	5	No Drains affected	OPS Log
10/7/2019	16:10	Ramp Gate B-9	A small 5 gallon **Jet A** fuel spill was reported on the ramp at Gate B-9 The aircraft wing feal is broken	5	. The spill has been contained and cleaning is in progress.No drains affected	OPS Log
10/31/2019	9:34	B2 Ramp	Southwest Jet A fuel spill from tank 2 due to faulty value	25	No drains affected.	OPS Log
11/8/2019	9:10	D14	From aircraft N9169K (Spirit) on D14, approximately 5 gallons of **Jet A** fuel.	5	Clean up in progress. No drains affected.	OPS Log
11/23/2019	12:21	F20	Defuel mis-communication resulted in 20 gallons **Jet A** fuel spill.	20	No drains affected.	OPS Log
11/25/2019	8:58	BWI Fuel Farm	10 gallon of **Jet A** fuel overflow while filling a fuel truck.	10	Absorbal used. No drains effected.	OPS Log

12/3/2019	11:14	GA Fuel Farm next to the Natural gas facility for the BWI buses.	10 gallon of **Jet A** fuel spill mspotted by Menzies driver. Source unknown.	10	Absorbal used for cleanup.	OPS Log
12/10/2019	14:25	Landside near Signature Flight Support	A truck was idling with a leak and drove away. The rain caused the **diesel fuel** spill to run downhill to the storm drain.	1	Signature did place a boom in front of the drain.	OPS Log
12/14/2019	6:30	Gate D-1	Faulty fuel valve on spirit aircraft resulted in 10 gallons of **Jet A** fuel spill.	10	Absorbent	OPS Log
12/17/2019	9:00	Fuel Farm	2 gallons of **oil** leaked out of swissport truck during fuel farm insopections.	2		OPS Log
12/31/2019	12:31	C1 Ramp	3-5 gallons of **Jet A** Fuel vented out the right wing due to a right wing VTO failure.	5	Absorbal applied and swept up.	OPS Log
1/20/2020	13:00	Front of Gate C8	Swissport fuel truck #1178 had multple leaks discovered by BWI Fire Rescue. Three **oil** leak spots were discovered.	1	Swissport crew cleaned it with absorbent/Stay-Dri. No drains affected.	OPS Log
2/11/2020	8:43	C13 Gate Apron	**Jet A** Fuel vented out the right wing due to a right wing VTO failure on SWA Flight B-737 Flight # 1773, (N7730A)	30	Fuel spill has entered into a drain. MES advised.	OPS Log
2/27/2020	20:10	Near Gate B5	Hydrant cart failure resulting in appx. 5 gal spill of **Jet A** fuel.	5	Absorbent used.	OPS Log
3/1/2020	13:19	Fuel Farm	Swissport fuel hydrant cart 6942 at Fuel Farm found to have a small leak of **Jet A** fuel. ARFF and OPS on scene.	2	Swissport responded and tagged cart out of service as well as conducting clean up. Spill estimated to be less than 2 gallons, no drains affected. ARFF declared scene secure.	OPS Log
3/4/2020	11:20	Ramp F-21	A new MB-5 developed a **hydraulic leak** and spilled approximately 5 gallons of hydraulic fluid onto the ramp at F-21. There were no drains in the area.	5	The MB-5 was driven back to the Auto Shop and the spill was cleaned up by FMX.	OPS Log
3/7/2020	7:45	Gate C12	Appx. 5 gal of **Jet A** Fuel spilled from hose after disconnect.	5	Absorbent used. No drains affected. Clean up in progress, scene is secure.	OPS Log
4/7/2020	7:41	Gate A-8	Approximately 10 gallons of **Jeyt A** fuel vented from the left wing of Aircraft N480WN.	10	No drains affected. Absorbant used.	OPS Log
5/4/2020	21:03	North Cargo F-8	Overfill during fueling the aircraft caused **Jet A** fuel leak from the wings.	10	irport Operations & BWI FRD responded. Menzies were actively cleaning up the spill and laying absorbent down. BWI FRD declared the scene secure	OPS Log
5/26/2020	8:23	Gate B-15	Valve failure and wing vent resulted in **Jet A** fuel spill.	20	Speedy dry	OPS Log
6/3/2020	0:01	Gate F-9	FedEx called to report approximately 200 gallons of **Jet A** fuel spilled during a fueling operation at F9 .	200	ARFF/FedEx/Menzies all cleaned up the spill. Scene secure.	OPS Log
6/14/2020	22:20	SWA Cargo Building B	Fueling hose got caught between tire and fender causing a tear in the hose resulting in the spill of **Jet A** fuel.	9	No drains affected. OPS and ARFF on scene. Swissport conducting clean up.	OPS Log
7/4/2020	11:06	Fuel Pumps at FMX	Unknown reason for 2 gallons of **Diesel** fuel.	2		OPS Log
7/6/2020	19:15	A5 Ramp	Vented out of left wing due to fuel transfer resulted in **Jet A** fuel spill.	5	Due to heavy rain no cleanup was performed	OPS Log
7/12/2020	13:40	Ramp B-2	Left wing tank shutoff failure resulted in **Jet A** fuel spill.	30	No drains affected.	OPS Log
7/14/2020	14:21	Ramp B-13	Vent from right wing resulted in **Jet A** fuel spill.	10	Granular Absorbent used and no drains effected.	OPS Log
8/10/2020	14:43	Gate B9	The fueler over pressurized the wings during fueling resulting in Jet A fuel venting out of the wings.	30	Absorbent material used.	OPS Log
8/20/2020	10:01	Gate B10	Fueler overfilling the aircraft. Automatic shut off valve malfunction resulted in **Jet A** fuel spill.	35		OPS Log

8/23/2020	13:48	Employee lot behind hourly garage	Employee vehicle in outer employee lot behind hourly garage found to be leaking fuel. Less than 3 gallons of **gasoline** spilled.	3	No drains affected. Absorbent used.	OPS Log
8/27/2020	20:50	Gate B10	Fuel hydrant valve cover malfunction resulted in **Jet A** fuel spill.	2	No drains affected. Absorbent used.	OPS Log
9/9/2020	18:11	Gate C7	Faulty valve on right side of aircraft resulted in 45 gallons of **Jet A** fuel spill.	45	cene cleaned and secure at 1939. using Speedy Dry	OPS Log
9/12/2020	16:51	Jetbridge B15	**Jet A** Fuel overflow due to failure on the left wing shut off valve.	10	Fuel absorbent / Stay Dry and barrels. Were used.	OPS Log
						OPS Log
9/15/2020	12:08	Midfield Cargo	Crack between right wing and fuselage resulted in **Jet A** fuel spill.	10	AMAZON and MENZIES assisting cleanup.	OPS Log
9/21/2020	19:03	Gate A9	Improper hose connection to the hydrant cart resulted in **Jet A** spill.	3		OPS Log
11/24/2020	10:50	Gate B-3	Fuel override malfunction resulted in **Jet A** fuel spill.	10	SWA assisted with clean-up. Spill contained to pavement. No drains affected	OPS Log
12/2/2020	23:12	Large Area Fuel Spill	Tanker truck leaving fuel farm through G gate was leaking **Jet A** fuel out of top. A trail of fuel is present the entire route with concentrated puddles at traffic lights.	Unknown	Menzies called for contractor support. Spill areas secured.	OPS Log
12/12/2020	10:48	Gate B-13	Fuel valve failure resulted in **Jet A** fuel spill.	2	Prime Flight/SWA assisted in clean-up	OPS Log
12/23/2020	1:35	Jetway A-1	Damaged fuel hose on fueling tug resulted in **gasoline** spill .	2	Prime Flight/SWA assisted in clean-up. Spill contained to pavement. No drains affected	OPS Log
1/6/2021	16:40	Gate B-13	3-5 gallons of **Jet A** Fuel spill reported.	5	SWA assisted with clean-up. Spill contained to pavement. No drains affected	OPS Log
2/21/2021	7:22	Mid Field Cargo Fuel Farm	Appx. 3000 gallons of **Jet A** fuel spilled due to failure of auto shut-off.	3000	Menzies using vac truck to vacuum Jet A fuel from Mathison Way dike and airside fuel farm dike area.	OPS Log
3/9/2021	17:06	Fuel Farm	Overfueling of the fuel truck resulted in **gasoline** spill.	1	Absorbent and PIG mats used to contain and clean-up.	OPS Log
3/23/2021	16:18	B-10 Ramp	**Jet A** fuel spilled from aircraft due to overfill.	5	No drains affected.	OPS Log
3/31/2021	19:11	Gate C-5	Mechanical issues on the fuel truck hose resulted in failure of shut-off valve caused **Jet A fuel** spill.	Unknown	Some fuel made to the drains. Menzies coordinated cleanup.	OPS Log
5/20/2021	22:37	Gate B-9	B9 in-ground **Jet-A** fuel hydrant leak resulted in the pit filling with fuel.	30	The fuel is contained in the Menzies vac truck.	OPS Log
6/3/2021	18:16	Gate A-16	**Jet A Fuel** venting from First Officer side wing. 5-10 Gallons. Possible mechanical valve failure.	10	No drains affected. Clean up completed by SWA.	OPS Log
6/16/2021	13:58	Gate A-14	Fuel truck overflow while defueling aircraft resulted in **Jet A** fuel spill.	850	Absorbent used. Prime Flight/First Call Env completed cleanup.	OPS Log
6/29/2021	5:41	Gate B-9	**Jet A** fuel vented from aircraft wing.	10	Prime Flight was responsible for cleanup.	OPS Log
6/30/2021	19:46	Ramp at Gate B-5	**Jet A** fuel vented from aircraft right wing overfill.	10	Granular Absorbent used and no drains effected.	OPS Log
7/10/2021	11:25	Main Fuel Farm	**Diesel** fuel spill resulted from fuel expansion.	8	Absorbent used. No soil or drains were effected.	OPS Log
7/13/2021	22:00	Ramp at Gate E-4	**Jet A** fuel vented from aircraft left wing due to fuel transfer issue.	5	Absorbent used. No soil or drains were effected.	OPS Log
8/13/2021	14:30	Gate D-25	**Jet A** fuel vented from aircraft due to overfill.	30	Absorbent used. No drains were effected.	OPS Log
8/15/2021	18:23	Gate D-24	**Jet A** fuel vented from aircraft wing.	3	Speedy dry was used to contain spill.	OPS Log
8/17/2021	5:53	Ramp at Gate D-16	**Jet A** fuel vented from aircraft wing while fueling.	8	Absorbent used. Spill clean-up completed.	OPS Log
8/23/2021	18:10	Gate C-1	**Jet A** fuel vented from aircraft wing due to overfill.	10	Absorbent used. Spill clean-up completed. No drains affected.	OPS Log
8/25/2021	13:50	F18A	Jet A fuel spilled due to fuel expansion in the tank and vented out the right wing	10		OPS Log
8/28/2021	18:21	Gate A-7	**Jet A** fuel vented from aircraft due to overfill.	10	Absorbent used. Spill clean-up completed.	OPS Log
8/31/2021	12:09	TXL T1	**Jet A** fuel vented from aircraft.	10	Clean-up completed. No drains affected.	OPS Log
9/5/2021	4:03	1007 Air Cargo Drive	**Diesel** was spill from a leaking truck.	7	Absorbent material and brooms were used for clean-up.	OPS Log

9/20/2021	17:12	Gate D-5	**Jet A** fuel vented from aircraft wing due to overfill.	4	Absorbent used. Spill clean-up completed.	OPS Log
9/27/2021	19:37	C13 stopbat on VSR to BLDG 107	**Cooking grease was** spilled while being transported.	15	Absorbent used. Spill clean-up completed.	OPS Log
10/12/2021	15:35	General Aviation Ramp	**Jet A** fuel spill was observed from unknown source.	1	Clean-up completed by Signature.	OPS Log
10/19/2021	7:30	Gate B-15	**Jet A** fuel spill was observed from aircraft due to overfill.	10	Oil dry absorbent was used.	OPS Log
10/22/2021	22;16	Freight Spot F-4	**Jet A** fuel vented from aircraft right wing due to overfill.	10	Menzies completed clean up. No drains affected.	OPS Log
11/6/2021	11:55	Gate A3	Malfunction of hydrant nozzle resulted in **Jet A** fuel spill.	15	Absorbent used. Spill clean-up completed.	OPS Log
11/6/2021	16:24	General Aviation Signature Ramp	**Jet A** fuel vented from aircraft left wing due to overfill.	15	Absorbent used. Spill clean-up completed.	OPS Log
11/8/2021	8:12	Signature Ramp	Jet A fuel spill during fueling.	15		OPS Log
12/19/2021	14:31	Gate B-11	**Jet A** fuel vented from aircraft due to overfill.	10	Absorbent used. Spill clean-up completed.	OPS Log
3/21/2022	13:33	F20A	**Diesel** fuel spill resulted from overfill.	4	Absorbent used. Spill clean-up completed.	OPS Log
3/25/2022	8:13	Gate B-13	**Jet A** fuel spill coming from engine cowling.	1	Absorbent used. Spill clean-up completed.	OPS Log
4/1/2022	18:19	Main Fuel Farm	**Jet A** fuel vented from aircraft due to overfill.	10	Sorbent booms and absorbent used. No drains affected.	OPS Log
4/11/2022	6:28	Gate B-11	**Jet A** fuel vented from aircraft right wing due to overfill.	10	Absorbent used. Spill clean-up completed.	OPS Log
4/13/2022	12:00	Fuel Farm	**Diesel** fuel spilled overflowing from the top of the tanker.	10	Absorbent used. Spill clean-up completed.	OPS Log
4/23/2022	7:31	Parking Position F-5	**Jet A** fuel vented from aircraft wing due to overfill.	10	absorbent used. No drains affected.	OPS Log
5/11/2022	10:58	TWY F in closed area for constructi on	Puncture in fuel tank resulted in **diesel** fuel spi	25	Spill kit was used to clean-up.	OPS Log
5/20/2022	19:13	Fuel Farm	Jet A fuel spill due to unknown reason.	10	Absorbent used. Spill clean-up completed.	OPS Log
5/22/2022	16:00	Pushing Back from F23	**Jet A** fuel vented from aircraft right wing due to overfill.	15		OPS Log

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APPENDIX I-1

MONTHLY INSPECTION CHECKLIST FOR ASTS, DRUMS, PORTABLE CONTAINERS, AND OFOE

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MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

MAA ENVIRONMENTAL COMPLIANCE INSPECTION REPORT

Inspection Type: AST Monthly Inspection
Facility: BWI

Inspection Date:
Inspector:

Asset:

Category	Q#	Question	Response	Comments
Tank Containment and Storage Areas	1.1	AST, Drums, or Portable Containers are not stored within their designated storage or containment area?		
	1.2	Tank identification signs or labels are damaged or missing?		
	1.3	Container distortions, buckling, denting, or bulging is noticeable?		
	1.4	Water is present in secondary containment, interstice, or spill container?		
	1.5	Product is present in secondary containment, interstice, or spill container?		
	1.6	Debris, spills, or fire hazard is present in the containment area and/or near to tank?		
	1.7	Drain valves or drain plugs are not operable, are in an open position, or are missing?		
	1.8	Water is present in the primary tank?		
	1.9	System is in alarm, or audible/visible alarms on overfill equipment (if installed) does not operate when tested?		
Leak Detection	2.1	Signs of leakage around tank, concrete pad, containment, ringwall, or ground are visible?		
	2.2	Signs of leakage from piping, valves, joints, or other appurtenances are visible?		
Tank Attachments and Appurtenances	3.1	Ladder and platform structure is not secured or show signs of severe corrosion/damage?		
	3.2	Tank liquid level gauge is not readable or in poor condition?		
	3.3	Tank openings are not properly sealed (e.g., fill cap open, spill container open, etc.)?		
Response Equipment and Materials	4.1	Spill kits, trailers, and other response equipment or materials are unavailable or need to be replenished?		
Security	5.1	Containment egress pathways are not clear or gates/doors are not operable?		
	5.2	Fencing, gates, or lighting surrounding storage area is not functional?		

Asset:

Category	Q#	Question	Response	Comments
Tank Containment and Storage Areas	1.1	AST, Drums, or Portable Containers are not stored within their designated storage or containment area?		
	1.2	Tank identification signs or labels are damaged or missing?		
	1.3	Container distortions, buckling, denting, or bulging is noticeable?		
	1.4	Water is present in secondary containment, interstice, or spill container?		
	1.5	Product is present in secondary containment, interstice, or spill container?		
	1.6	Debris, spills, or fire hazard is present in the containment area and/or near to tank?		
	1.7	Drain valves or drain plugs are not operable, are in an open position, or are missing?		
	1.8	Water is present in the primary tank?		
	1.9	System is in alarm, or audible/visible alarms on overfill equipment (if installed) does not operate when tested?		
Leak Detection	2.1	Signs of leakage around tank, concrete pad, containment, ringwall, or ground are visible?		
	2.2	Signs of leakage from piping, valves, joints, or other appurtenances are visible?		
Tank Attachments and Appurtenances	3.1	Ladder and platform structure is not secured or show signs of severe corrosion/damage?		
	3.2	Tank liquid level gauge is not readable or in poor condition?		
	3.3	Tank openings are not properly sealed (e.g., fill cap open, spill container open, etc.)?		
Response Equipment and Materials	4.1	Spill kits, trailers, and other response equipment or materials are unavailable or need to be replenished?		
Security	5.1	Containment egress pathways are not clear or gates/doors are not operable?		
	5.2	Fencing, gates, or lighting surrounding storage area is not functional?		

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

MAA ENVIRONMENTAL COMPLIANCE INSPECTION REPORT

Inspection Type: OFOE Monthly Inspection
Facility: BWI
Inspection Date:
Inspector:

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
	1.2	Oil stains are present in the vicinity of the equipment?		
	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
	1.2	Oil stains are present in the vicinity of the equipment?		
	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
	1.2	Oil stains are present in the vicinity of the equipment?		
	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
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	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
	1.2	Oil stains are present in the vicinity of the equipment?		
	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

Asset:

Category	Q#	Question	Response	Comments
Oil-Filled Operational Equipment	1.1	Pipes/valves are leaking?		
	1.2	Oil stains are present in the vicinity of the equipment?		
	1.3	Raised spots or dents are present on the surfaces of the equipment?		
	1.4	Cracks are present in the equipment supports?		
	1.5	Warning and identification labels are not present?		

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APPENDIX I-2

ANNUAL INSPECTION CHECKLIST FOR ASTS

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BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

Inspection Date (MM/DD/YY) MM/DD/YY **Inspector Name** _____

Inspection Guidance:

- Use this inspection checklist for **aboveground storage tanks (ASTs)**. This checklist includes STI SPI-001 requirements for periodic visual inspections that are intended to monitor external conditions of AST and their containment structures. This inspection does not require a Certified Inspector and should be performed by the owner's inspector who is familiar with the site and can identify changes and development problems.
- This inspection should be performed on an annual basis in addition to the monthly inspections.
- Refer to diagrams provided on the last page of this inspection checklist for reference to terminology of tank locations.
- Answering "YES" (Y) for an inspection item indicates that the item is in n-conformance status.
- Retain completed inspection record for a minimum of 3 years.
- **If a change has occurred to any tank system or containment that may affect the SPCC Plan, a Professional Engineer knowledgeable in SPCC Plan development and implementation should review and evaluate the change to determine if updates to the SPCC Plan are required.**

INSPECTION ITEM		STATUS (YES, NO, or N/A)										
1.0	**Tank Containment and Storage Areas**											
1.1	Containment structure is in poor condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
1.2	Drainage pipes/valves are not fit for continued service	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

INSPECTION ITEM		STATUS (YES, NO, or N/A)										
2.0	**Tank Foundation and Supports**											
2.1	Evidence of tank settlement or foundation washout	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
2.2	Cracking or spalling of concrete pad is visible	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
2.3	Tank supports are in poor condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

INSPECTION ITEM	STATUS (YES, NO, or N/A)										
2.4 Water is unable to drain away from tank (e.g. from base of tank)	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
	123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
	155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
	C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
	Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
2.5 Grounding strap is not secured and in poor condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
	123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
	155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
	C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
	Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
3.0 Tank External Coating											
3.1 Evidence of paint failure (i.e., significant peeling, cracking, spalling, blistering, pitting, chipping, etc. of paint or coating, result in exposure of the tank's metal surface and corrosion of the tank shell)	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
	123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
	155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
	C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
	Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

INSPECTION ITEM		STATUS (YES, NO, or N/A)										
4.0	**Tank Shell/Heads**											
4.1	Noticeable shell/head distortions, buckling, denting, or bulging	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
4.2	Evidence of shell/head corrosion or cracking	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.0	**Tank Equipment**											
5.1	Anti-siphon, check and gate valves do not operate properly?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

INSPECTION ITEM		STATUS (YES, NO, or N/A)										
5.2	Pressure regulator valves do not operate properly?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.3	Expansion relief valve is not properly orientated?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.4	Solenoid valves do not to operate properly?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.5	Fire and shear valve test ports are not sealed, can't move freely, can't be closed completely, or are wired in the open position	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
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INSPECTION ITEM		STATUS (YES, NO, or N/A)										
5.6	Mechanical leak gauges for interstitial leak detection are not clear or readable?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.7	Wire connections for electronic interstitial leak detection sensors are loose or show signs of corrosion?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
5.8	Spill box connections to the AST are loose; bolts, nuts, or washers in poor condition, evidence of corrosion, damage or wear on spill containment box?	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

	INSPECTION ITEM	STATUS (YES, NO, or N/A)										
6.0	**Tank Manways, Piping, and Equipment Within Secondary Containment**											
6.1	Flanged connection bolts are loose, and not fully engaged with signs of wear or corrosion	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
7.0	**Tank Roof**											
7.1	Standing water on roof	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
7.2	Evidence of coating, cracking, crazing, peeling, or blistering	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
7.3	Holes are visible in roof	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

INSPECTION ITEM		STATUS (YES, NO, or N/A)										
8.0	**Venting**											
8.1	Vents are not free of obstructions	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
8.2	Emergency vent is not operable and can't be lifted as required	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
9.0	**Level and Overfill Prevention Instrumentation of Shop-Fabricated Tanks**											
9.1	Tank liquid level sensing device has not been tested to ensure proper operation	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

	INSPECTION ITEM	STATUS (YES, NO, or N/A)										
9.2	Overfill prevention device is not in proper working condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
10.0	**Electrical Equipment**											
10.1	Tank grounding lines are in poor condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				
10.2	Electrical wiring for control boxes/lights are in poor condition	101-FLV-1A	114-CUP-1M	116-FM-2A	116-FM-4A	121-VM-1A	121-VM-2A	121-VM-3A	121-VM-4A	121-VM-5A	121-VM-6A	121-VM-8A
		123-PS-1A	134-VM-1A	137-ES-6A	137-ES-7A	137-ES-8A	137-ES-9A	137-ES-10A	137-ES-11A	137-ES-12A	140-DPG-1A	155-KAUF-2A
		155-KAUF-3A	160-HPG-1A	160-HPG-2A	172-MAC-1A	FTF-1A	FTF-2A	FTF-3A	FTF-4A	A-1A	A-2A	B-1A
		C-3A	C-4A	E-1A	E-2A	E-3A	E-4A	Mobile-1M	Mobile-2M	Mobile-3M	Mobile-4M	Melt 1
		Melt 2	Melt 3	Melt 4	Melt 5	Melt 6	Melt 7	Melt 8				

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST

	INSPECTION ITEM	STATUS (YES, NO, or N/A)
11.0	**General Items (Site-Wide)**	
11.1	Fuel delivery records are not being maintained (including recording of tank fuel levels prior to filling)	☐ Yes ☐ No ☐ N/A
11.2	Annual awareness training (per 40 CFR 112) for oil-handling personnel has not been provided	☐ Yes ☐ No ☐ N/A
11.3	Oil Operations Permit has not been updated or renewed (if required)	☐ Yes ☐ No ☐ N/A
11.4	Tank identification labels and decals (i.e., NFPA 704, combustible/flammable, contents, capacity) are missing or not readable.	☐ Yes ☐ No ☐ N/A

Additional Comments:

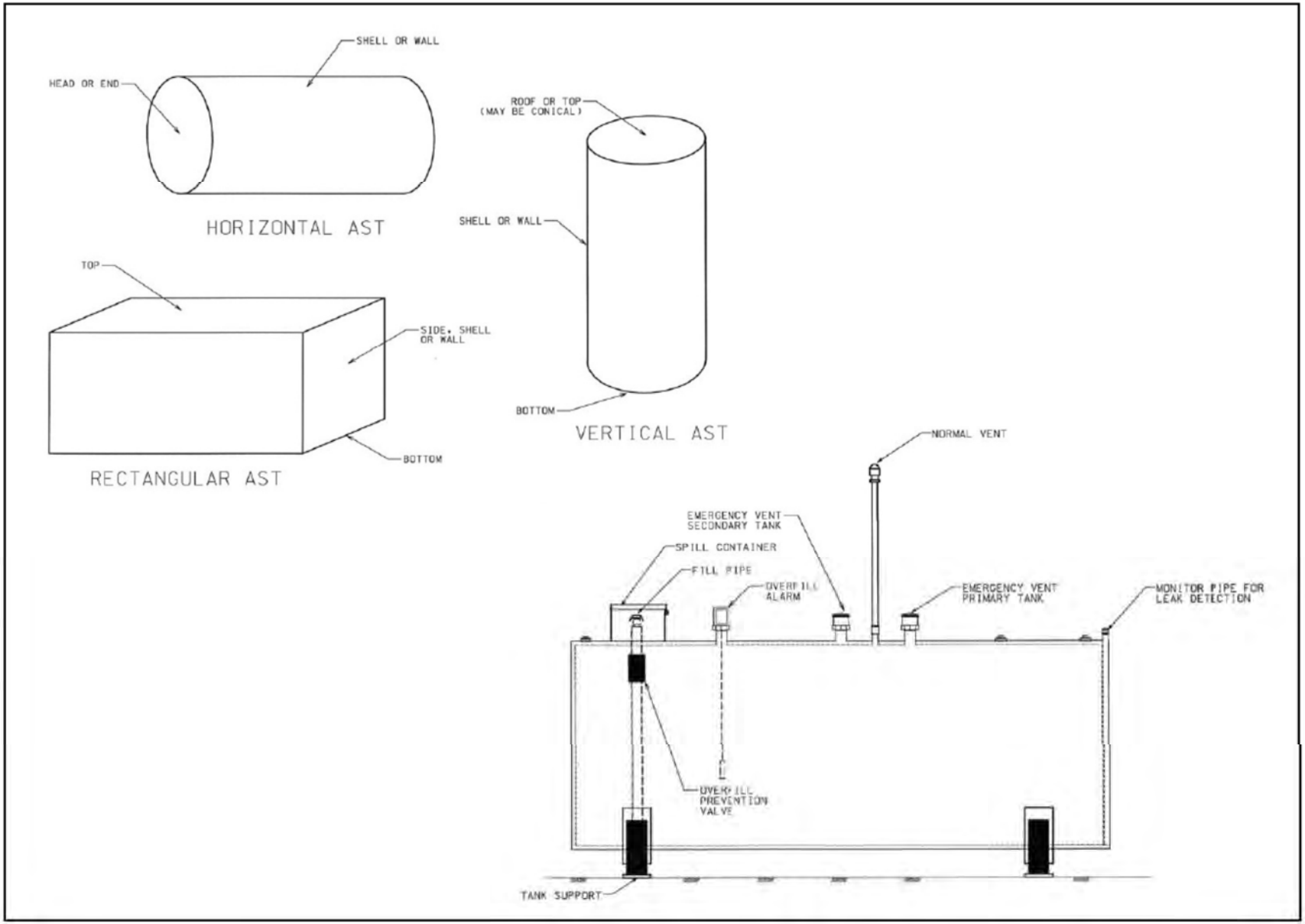
1)

2)

3)

4)

BWI MARSHALL AIRPORT
ANNUAL INSPECTION CHECKLIST



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APPENDIX J 1

CURTIS ENGINE MONTHLY INSPECTIONS

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Curtis Engine & Equipment, Inc.

3920 Vero Road, Suites I & J • Baltimore, Maryland 21227
(410) 536-1203 • (800) 573-9200 • Fax (410) 536-2098

[0] POTENTIAL PROBLEM
[X] URGENT PROBLEM
[✓] OK
[1] ADJUST
[2] REPAIR OR REPLACE

PLANNED MAINTENANCE INSPECTION FOR GENERATOR SYSTEMS

CUSTOMER _____ SITE: _____ RO NO. _____ DATE: _____

GENERATOR MODEL NO. _____ GENERATOR S/N: _____ ENGINE MODEL NO. _____ ENGINE S/N: _____

TRANSFER SWITCH MODEL NO. _____ TRANSFER SWITCH S/N: _____ HOUR METER _____

ENGINE

GAS
- ☐ SPARK PLUGS
- ☐ IGNITION POINTS
- ☐ BELTS
- ☐ CHOKE
- ☐ DISTRIBUTOR
- ☐ IGNITION WIRES
- ☐ AIR FILTER

DIESEL
- ☐ BELTS
- ☐ SERVICE AIR CLEANER
- ☐ INJECTION PUMP
- ☐ TURBOS

OIL SYSTEM

- ☐ CHECK ENGINE LUBRICATION
- ☐ OIL FILTER
- ☐ LUBRICATE GOVERNOR & LINKAGE
- ☐ CHECK ENTIRE UNIT FOR OIL LEAKS
- ☐ CHECK LUBE OIL LEVEL

COOLING SYSTEM

- ☐ CHECK ENGINE RADIATOR COOLANT LEVEL & RECORD PROTECTION _____
- ☐ CHECK FOR LEAKS, TIGHTEN HOSE CLAMPS &
- ☐ HOSE CONDITION
- ☐ CHECK ENGINE BLOCK HEATER & RECORD WATER TEMPERATURE _____
- ☐ CHECK ENGINE FINS/AIR COOLED UNIT
- ☐ CHECK SOLENOID VALVE & FLEX WATER LINES
- ☐ CHECK LOUVER OPERATION
- ☐ DCA _____

EXHAUST SYSTEM

- ☐ VISUAL INSPECTION OF EXHAUST SYSTEM FOR LEAKS & DRAIN CONDENSATION TRAP IF APPLICABLE

FUEL SYSTEM

- ☐ CHECK FLEXIBLE FUEL CONNECTIONS & LINES
- ☐ CHECK DAY TANK FLOAT LEVEL
- ☐ CHECK FUEL TRANSFER PUMP
- ☐ FUEL FILTER(S)
- ☐ CHECK FUEL SOLENOID
- ☐ CHECK & RECORD FUEL SUPPLY-APPROX. _____
- ☐ CHECK FOR WATER & FUEL TANKS

STARTING SYSTEM

- ☐ CHECK START SOLENOID TERMINALS
- ☐ CHECK STARTER

ELECTRICAL

- ☐ CHECK ELECTRICAL CONNECTIONS
- ☐ CHECK AC & DC BRUSHES, IF APPLICABLE
- ☐ CLEAN COLLECTOR RING, IF APPLICABLE
- ☐ CLEAN COMMUTATOR, IF APPLICABLE
- ☐ CHECK DC ALTERNATOR

BATTERY

- ☐ CHECK BATTERY STARTING SYSTEM
- ☐ BATTERY CHARGER—RECORD READINGS AMPS _____ VOLTS _____
- ☐ CHECK SOLUTION LEVEL
- ☐ CHECK CONNECTIONS & CLEAN IF NECESSARY
- ☐ NOTE OVERALL CONDITION OF BATTERY SYSTEM
- ☐ RECORD SPECIFIC GRAVITY

CELLS

	1+	2-	3+	4-	5+	6-
B1						
B2						
B3						
B4						

OPERATING CHECK

- ☐ RUN GENERATOR AND CONDUCT SAFETY TEST
- ☐ OVERSPEED
- ☐ LOW OIL PRESSURE
- ☐ HIGH WATER TEMPERATURE

BUILDING LOAD TEST IF PERMITTED

- ☐ ENGINE WATER TEMP _____
- ☐ ENGINE LUBE PRESSURE _____
- ☐ LUBE OIL TEMP _____
- ☐ BATTERY CHARGE RATE _____
- ☐ GENERATOR CHECK/RECORD
- ☐ AMPS: A _____ B _____ C _____
- ☐ VOLTAGE _____
- ☐ FREQUENCY _____
- ☐ ADJUST VOLTAGE REGULATOR _____
- ☐ CHECK ENGINE MOUNTS _____
- ☐ CHECK EXHAUST MOUNTS & EXHAUST SMOKE _____
- ☐ CHECK OIL PAN _____
- ☐ CHECK ABNORMAL SOUNDS _____
- ☐ CHECK VIBRATIONS _____

AUTOMATIC SWITCH

- ☐ INSPECT INSTRUMENTS & GAUGES
- ☐ CHECK BATTERY CHARGER
- ☐ CHECK EXERCISER CLOCK
- ☐ CHECK SELECTOR SWITCH
- ☐ START AND STOP UNIT FROM SWITCH
- ☐ CALIBRATE VOLTAGE SENSORS
- ☐ CHECK TIME DELAYS

REMARKS _____

_____

CUSTOMER SIGNATURE _____

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APPENDIX J 2

HYDRAULIC ELEVATORS INSPECTION CHECKLIST

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Task	Summary
10	Ride each elevator car, check operation of car and hatch doors,
20	Clean trash from hoistway and pit and empty drip pans, discard oil, check oil lebel, replace if nece
30	Inspect and lubricate machinery, contacts, linkage and gearing.
40	Inspect and test the ADA telephone or intercommunication emergency system in each car, emergency lig
50	Replace all burned out lights in elevator cab, machine room and pit.
60	Verify fire extinguisher is up to date and if not, notify the Administration
70	Check door operation, clean, lubricate and adjust breaks, checks, linkages, gears, wiring motors, ch
80	Observe operation of motor and pump, oil lines, tanks, control, plunger, packing etc. Adjust or repa
90	Check packinh glands of valves and cylinder and tighten to prevent loss of fluilds
110	Visually inspect controller, content and relay, check adjustement and replace contacts as required.
120	Clean and inspect controllers, selectors and governors; make repairs as needed
130	Inspect brake operation. Check shoe to brake drum clearance and adjust as required for proper operat
140	Examine all motors and pump units checking for bearing overheating, vibrations, commutator wear, bru
150	Check belt adjustment on hydraulic elevators; make adjustments and repairs as necessary.
160	Clean and adjust contacts and renew worn contacts and/or shunts as necessary.
170	Perform all other adjustments and repairs necessary for proper equipment operation as required by co
180	All parts of machinery and equipment requirement lubrication shall be lubricated and regular periodi
190	All parts of the machinery and equipment requiring adjustment shall be adjusted at regular periodic
200	The frequency of adjustments shall be determined by the contractor based upon the unit location and
210	The contractor shall be responsible for maintaining, repairing, and/or replacing all electrical wiri
220	The mechanical portion of the elevator and its components shall be periodically cleaned to prevent a
230	Examine machines and/or pump units, checking for bearing overheating, vibrations and oil level, make
240	Check belt adjustment on hydraulic elevators; make adjustments and repair as necessary.
250	Provide proper housekeeping in machine room, hoist way and pit.
260	Clean and adjust contacts and renew worn contacts and/or shunts as necessary.
270	Perform all other adjustments and repairs necessary for proper equipment operation as required by co

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APPENDIX K

RECORD OF ANNUAL DISCHARGE PREVENTION

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RECORD OF ANNUAL DISCHARGE PREVENTION BRIEFINGS

Briefings will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules, and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Date	Subjects Covered	Employees in Attendance	Instructor(s)
6/15/09	SPCC Plan Implementation, Spill response, Integrated Contingency Plan	Mark Williams, Barron Feit, Darline Terrell-Tyson, Jim Poppinga, Hamid Gazy, Edwin Maker, Peter Dow, Henry Dworshak, Darryl Halsey, Terry Yetter, Thomas D. Rogers, David F. Edwards, Thomas S. Davis, Ben Martinez	Brad Dinder, EA; Tim Henkle, EA; Rob Marcase, EA
10/29/09 & 11/03/09	2009 Annual Environmental Awareness Training	See training records on JETS website.	Dan Hixon, EA; Tim Henkle, EA Phil Baker, ERC
10/21/10 & 10/25/10	2010 Annual Environmental Awareness Training	See training records on JETS website.	Rob Marcase, EA; Spring Carty, EA; Phil Baker, ERC
10/12/11, 10/13/11, & 10/17/11	2011 Annual Environmental Awareness Training	See training records on JETS website.	Rob Marcase, EA; Becky Morris, EA; Spring Carty, EA; Phil Baker, ERC
11/07/12 & 11/08/12	2012 Annual Environmental Awareness Training	See training records on JETS website.	Becky Morris, EA; Spring Carty, EA; Phil Baker, ERC
10/15 - 10/17/13	2013 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC
10/29/14 & 10/30/14	2014 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC
10/27/15 & 11/5/15	2015 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC
10/24/16 & 10/26-27/16	2016 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC
11/1-2/17 & 11/6/17	2017 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC
10/30-31 & 11/2/18	2018 Annual Environmental Awareness Training	See training records on JETS website.	Dan Twilley, Aria Environmental Inc.; Phil Baker, ERC

Date	Subjects Covered	Employees in Attendance	Instructor(s)
11/18/19	2019 Annual Environmental Awareness Training	See training records on JETS website.	Ann Smith-Reiser, EA; Doug Foerster, EA; Phil Baker, ERC
November 2020	2020 Annual Environmental Awareness Training	See training records on JETS website.	Cornerstone Learning Management System
November 2021	2021 Annual Environmental Awareness Training	See training records on JETS website.	Cornerstone Learning Management System

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APPENDIX L

FUEL DELIVERY RECORD AND CHECKLIST

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BWI MARSHALL
FUEL TRANSFER RECORD AND CHECKLIST – TANK TRUCK AND LOADING RACK

Date (MM/DD/YY) _____

****

ASSET (select one)

Tank Truck No. 533

Fuel Level Before Filling: _____ inches
Fuel Level After Filling: _____ inches

Fuel Level Before Filling: _____ gallons
Fuel Level After Filling: _____ gallons
Total Fuel Loaded: _____ gallons

Tank 116-FM-4A

Fuel Level Before Dispensing: _____ inches
Fuel Level After Dispensing: _____ inches

Fuel Level Before Dispensing: _____ gallons
Fuel Level After Dispensing: _____ gallons

Total Fuel Loaded (based on stick readings): _____ gallons
Total Fuel Loaded (based on totalizer): _____ gallons
Difference: _____ gallons

****

FUEL UNLOADING CHECKLIST

- **Inspect delivery tank for evidence of dents, cuts, gouges, corroded/abraded areas, leakage** ☐
- **Fuel driver chocked wheels and grounded truck** ☐
- **Drain-blocking devices available (Deploy drain cover before fueling for tank E-1A)** ☐
- **Absorbent pads/buckets available** ☐
- **Fuel level recorded prior to filling (in above section)** ☐
- **Hose connections to tank and truck checked prior to filling** ☐
- **Driver located near shut-off valve during transfer** ☐
- **Tank fuel gauge monitored during transfer** ☐
- **Hoses drained before securing to vehicle** ☐
- **Tank fill covers and caps secured after refueling** ☐

Emergency Information: If leaks are observed, stop fuel transfer ***immediately*** and shut off all valves. Notify the Airport Operations Center at (410) 859-7018 or (410) 859-7019 and initiate spill response procedures identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan. Inform Supervisor and MDOT MAA Environmental Compliance Section of any required maintenance to the tank, piping, or fittings that could result in a future leak or spill.

****

Fuel Delivery Driver

Name _____ **Signature** _____

BWI MARSHALL
FUEL DELIVERY RECORD AND CHECKLIST

Date (MM/DD/YY) _____

****

ASSET (select one)

_____ **Tank (AST/UST)**

Tank ID: _____

Fuel Level Before Filling: _____ inches _____ gallons

Fuel Level After Filling: _____ inches _____ gallons

Total Fuel Loaded: _____ gallons

_____ **Equipment**

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

****

FUEL UNLOADING CHECKLIST

- **Inspect delivery tank for evidence of dents, cuts, gouges, corroded/abraded areas, leakage** ☐
- **Fuel driver chocked wheels and grounded truck** ☐
- **Drain-blocking devices available (Deploy drain cover before fueling for tank E-1A)** ☐
- **Absorbent pads/buckets available** ☐
- **Fuel level recorded prior to filling (in above section)** ☐
- **Hose connections to tank and truck checked prior to filling** ☐
- **Driver located near shut-off valve during transfer** ☐
- **Tank fuel gauge monitored during transfer** ☐
- **Hoses drained before securing to vehicle** ☐
- **Tank fill covers and caps secured after refueling** ☐

Emergency Information: If leaks are observed, stop fuel transfer ***immediately*** and shut off all valves. Notify the Airport Operations Center at (410) 859-7018 or (410) 859-7019 and initiate spill response procedures identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan. Inform Supervisor and MDOT MAA Environmental Compliance Section of any required maintenance to the tank, piping, or fittings that could result in a future leak or spill.

****

Fuel Delivery Driver

Name _____ **Signature** _____

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APPENDIX M

BALTIMORE/WASHINGTON

INTERNATIONAL THURGOOD MARSHALL

AIRPORT OIL OPERATIONS PERMIT

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Maryland
Department of
the Environment

RECEIVED

Larry Hogan. Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles. Secretary
Horacio Tablada. Deputy Secretary

OFFICE OF
ENVIRONMENTAL SERVICES

FEB 21 2018

Mr. Mark Williams
Maryland Aviation Administration
P.O. Box 8766, Third Floor Terminal Building
BWI Airport, MD 21240

Dear Mr. Williams:

Enclosed is the validated Oil Operations Permit No. 2018-0PT-5477 for your facility. Please review the conditions of this permit and become thoroughly familiar with its requirements. The Special Conditions in this permit list requirements to be completed within specific time limits and require the permittee to notify the Oil Control Program in writing when these conditions are completed. This permit is considered to be an enforceable document on its effective date.

If you have any questions, please contact Mr. Juraj Masiar of the Permits Section at 410-537-3412 or by email at *juraj.masiar@maryland.gov*.

Sincerely,

Hilary Miller

Hilary Miller, Director
Land and Materials Administration

HM/jm

Enclosure

cc: Mr. Christopher Ralston

OIL OPERATIONS PERMIT

Oil Operations Permit Number	2018-0PT-5477
Effective Date	FEB t. i 10i8
Expiration Date	FEB 11 2023

Pursuant to the provisions of Title 4 of the Environment Article, Annotated Code of Maryland and regulations promulgated thereunder, the Department of the Environment, hereinafter referred to as the "Department, [11] hereby authorizes:

Maryland Aviation Administration
991 Corporate Boulevard
Linthicum Heights, Marvland 21090

to operate an oil facility:

Located at:
Baltimore/Washington International Thurgood Marshall Airport
BWI Aimort, Anne Arundel Countv 21240

in a_ccordance with the special and general conditions imposed by this permit.

This Oil Operations Permit is issued in addition to, and not in substitution of, the requirements of other permits or authorizations granted for this facility.

REPORT ANY OIL SPILL OR DISCHARGE OF OIL
IMMEDIATELY
TO THE DEPARTMENT OF THE ENVIRONMENT

1-866-633-4686
(24 Hours)

AND THE APPROPRIATE FEDERAL AUTHORITY

This permit authorizes the operation of an oil transfer facility having a loading rack, the delivery of oil by truck tank or by transport in Maryland, and the storage of oil in the following aboveground storage systems:

See Attached Tank Listing

Underground oil storage systems are authorized pursuant to the provisions of Code of Maryland Regulations (COMAR) 26.10.02.

I. SPECIAL CONDITIONS

A. The permittee shall implement the following:

1. Measure and record in writing the liquid levels of oil storage systems at this facility prior to filling as required by Code of Maryland Regulations 26.10.0 l.12B (9).

2. Deliver oil by truck tank or by transport consistent with Code of Maryland Regulations 26.!0.01.16A, B, C and 26.I O.O1.l 7C, D, E, F.

3. Provide the truck tank or transport delivery vehicle(s) with spill clean-up material to promptly contain, collect and remove oil spillage.

4. For oil delivery by truck tank or transport and in all instances where the tank is accessible, drivers shall measure the tank ullage (available capacity) prior to filling.

5. Provide fire extinguishers on transport or truck tank vehicles in accordance with NFPA 385, 2000 edition.

6. The Maryland Department of the Environment's emergency spill reporting telephone number, 1-866-6334686, must be conspicuously posted in all truck tanks and transports receiving or delivering oil *in* Maryland.

7. Meet minimum vehicle insurance coverage for the transport of all types of oil, including gasoline.

8. Perform preventative maintenance annually or every 25,000 miles for truck tanks, transports, and vacuum tanks in accordance with 49 CFR 396 and COMAR 11.14.

9. Inspect and test truck tanks, transports, or vacuum tanks used for transporting .flammable petroleum liquids in accordance with 49 CFR 180.407.

10. Obtain U.S. DOT numbers for interstate truck tanks, transports, and vacuum tanks or Maryland State Highway Administration identification numbers for intrastate truck tanks, transports, and vacuum tanks.

11. Register all placarded truck tanks, transports, and vacuum tanks in accordance with 49 CFR 107.

I. SPECIAL CONDITIONS (continued)

12. Conduct driver safety training requirements as specified in 49 CFR 172.700 and COMAR 26.IO.O1.16D.

13. (For Maryland domiciled vehicles only) Locations where vehicles are permitted to be domiciled in Maryland shall meet zoning requirements for the parking of commercial truck tanks, transports, and vacuum tanks.

14. Manage the drainage of the emergency containment areas in accordance with the following:

    a. Oil or oil sheen shall be removed from the collected water prior to discharge through the use of sorbent materials or approved oil/water separation systems.

    b. Maintain the drain valve in a closed and locked condition when not engaged in a draining activity.

    c. Each drawdown shall be supervised, attended and documented by a designated employee.

    d. A logbook shall be kept and maintained with entries as follows: the date of each drainag_e, a description of the quantity and quality of the discharge, and the name of the employee supervising the drawdown. This logbook shall be kept at the site and be available for inspection at all times.

15. Maintain the underground double-walled piping associated with the 10,000-gallon Jet-A foe !(FTF-2A) and 5,000-gallon Jet-A foe !(FTF-lA) aboveground storage systems with continuous release monitoring of the interstitial space that can detect a release from any portion of the 1nderground piping that routinely contains oil, in accordance with Code of Maryland Regulations 26.10.05 and which is reviewed and listed by the National Workgroup on Leak Detection Evaluation (www.nwglde.org). The system shall be monitored monthly and written records of each inspection, or each monthly release detection performance, shall be kept on site.

16. Label the 250-gallon #2 heating oil (121-VM-SA) aboveground storage tank to display the tank size.

I. SPECIAL CONDITIONS (continued)

B. Schedule of Compliance

!. Schedule

The permittee shall achieve compliance with the alterations, modifications, or improvements specified by the Department in accordance *with* the following schedule:

a. Special Conditions A.1 through A.15 shall be placed in effect upon receipt of this permit.

b. Special Condition A. 16 shall be completed within 30 days after the effective date of this permit.

2. Notification

No later than 14 calendar days following the date identified "in the above Sthedule of Compliance, the permittee shall submit either a report-of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the case of noncompliance the notice shall include:

a. a description of the noncompliance;

b. a description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement;

c. a description of any factors which tend to explain or mitigate the noncompliance; and

d. the date that compliance with the elapsed schedule requirement will be achieved.

JI. GENERAL CONDITIONS

A. Compliance with Regulations

The permittee's operations shall comply with all of the applicable requirements in COMAR 26.10.01.01.-.12, 26.10.01.16 -.21, and 26.10.15 for the handling and cleanup of oil. The permittee is not authorized by this permit to discharge oil or cause oil to be discharged into waters of the State.

B. Plan for Notification, Containunent and Clean-Up of Oil Spills

A Maryland Department of the Environment "Plan for Notification, Containment and Clean-Up of Oil Spills", herein referred to as the "Plan", shall be completed by the permittee. The permittee shall comply with its "Plan", incorporated herein as a reference. The "Plan" shall be reviewed annually and updated by the permittee, as necessary. The Department shall be notified in writing by the permittee of any change in the "Plan".

C. Immediate Telephone Report Required of Oil Discharge or Spill

The permittee shall notify the Department immediately but not later than two hours after detecting a spill and also notify the appropriate Federal authority of any such discharge or spill of oil or other petroleum products. The Department shall be notified for any oil spill, regardless of the size, source, or the cause of the discharge or spill, including spills or discharges in secondary containment areas.

Such report shall be made by telephone to the telephone number listed on Page One of this permit, and shall include as a minimum the following information:

1. time of discharge;
2. location of discharge;
3. type and quantity of oil;
4. assistance required;
5. name, address, and telephone number of person making the report; and,
6. all other pertinent and necessary information requested by the Department.

D. Responsibility for Cleanup

The permittee has the primary responsibility for the inunediate commencement of the control, containment, and removal of any oil discharged or spilled, and the restoration of the natural resources of the State. Failure to act promptly and responsibly may result in the control, containment, and removal of the oil and restoration by the Department or its agent with the costs assessed to tl1e permittee.

II. GENERAi. CONDITIONS {continued)

E. Written Report Required on Removal and Cleanup of Spilled **Oil**

In the event a discharge or spill of oil has occurred, the permittee shall immediately commence control, containment, removal, and restoration operations. The permittee shall submit to. the Department a written report within 10 days after completion of the control, containment, removal, and restoration operations. The written report shaJ\ include the following:

1. date, time, and place of spill;
2. amount and type of oil spilled;
3. complete description of circumstances contributing to the spill;
4. complete description of containment, removal, clean-up, and restoration operations including disposal sites and costs of operations
5. procedures, methods, and precautions instituted to prevent a recurrence of an oil spill from the facility involved; and,
6. other information considered necessary or required by the Department for a complete description of the spill incident .

.F. Facility Operation and Maintenance

1. Maintenance

All treatment, control, and monitoring facilities or systems installed or used by the permittee shall at all times be maintained in good working order and operated efficiently.

2. Change in Operation

The operation of this oil operations facility shall be consistent with the terms and conditions of this penrtit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased oil operations shall be reported by the permittee by submission of a new application or by notice to the Department. Following such notice, the permit may be modified by the Department by the addition or revision of permit conditions.

G. Removed Oil, Used Oils, Waste Oils, or Oily Substances

Oils, used oil, waste oil, oily solids or sludges, or other oil contaminated substances generated by, or removed from the operations of this permitted facility shall be disposed of in a manner to prevent any such removed substances or runoff from such substances from entering or from being placed in a location where they are likely to pollute waters of the State.

II. GENERAL CONDITIONS (continued)

H. Monitoring by Permittee Required

The pennittee shall supervise and check, on a regular schedule, all aspects of the oil operations involved, and shall identify and correct any deficiency in operational procedure and any actual or potential defect or weakness in the operating system so as to prevent occurrences of oil spills.

I. Records Retention Req uired

All records and information resulting from the monitoring activities required by this permit shall be retained for a minimum of three (3) years. This retention time may be extended during the course of1itigation or when so requested by the Department.

J. Right of Entry

The permittee shall permit authorized representatives of the Department, upon presentation of appropriate credentials, entry into the permittee's facilities to conduct inspections necessary to monitor compliance with the terms and conditions of this permit. The permittee shall provide such assistance as may be necessary to effectively and safely conduct such inspections.

K. Permit Modification, Suspension, or Revocation

1. Request by Permittee

a. Any substantial change either in the size or scope of the operation or in the information and data previously supplied to the Department in the "Oil Operations Permit Application' [1] shall require a permit modification.

b. A permit may be modified by the Department upon written request of the permittee.

2. Action by the Department

a. This permit may be suspended or revoked upon a final, unreviewable determination that the permittee lacks, or is in violation of, any federal, state or local approval necessary to conduct the activity authorized by this permit.

b. A pe1mit may be modified, suspended, or revoked by the Department in the event of a violation of the terms or conditions of the permit, State Laws, or Regulation.

c. In issuing this permit, the Department has relied upon certain information or data provided by the permittee in the permit application. Ifsuch information should be false or inaccurate, this permit may be modified, suspended, or revoked.

d. Failure to report substantial changes as described in K.1.a. above may constitute a basis for suspension or revocation of the permit.

IL GENERAL CONDITIONS (continued)

L. Transfer of Ownership or Control of Facilities

In the event of any change in control or ownership of the facilities for which this permit has been issued:

I . The permittee shall notify, in writing, the succeeding owner or his assigned representative of the existence of this permit and of any outstanding violations of the permit. A copy of this notification shall *be* forwarded to the Department at least 30 days prior to said change in control or ·ownership.

2. The succeeding owner or his assigned representative shall notify the Department in writing, that the succeeding owner accepts the terms and conditions of the permit. Notification shall be made to the Department within 30 days after said change in ownership occurs.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to preclude initiation of any legal action by the Department nor relieve the permittee from civil or criminal penalties for noncompliance with Title 4 of the Environment Article, Annotated Code of Maryland, or any local, federal, or other State laws or regulations.

N. Propertv Rights

The issltance of this pennit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of State or local laws or regulations.

1. Miscellaneous Provisions

2. All permits and files of the Department relating to such permits shall be available for public inspection.

3. The State of Maryland is not precluded by the issuance of this permit from imposing other changes relating to the operations of the facility.

P. Severability

lfany provisions of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect, and such invalid provisions shall be considered severed and deleted from this permit.

II. GENERAL CONDITIONS {continued)

Q. Permit Expiration

This permit shall expire at midnight on the expiration date of the permit. In order to receive authorization to continue operation of these oil operations facilities beyond the above date of expiration, the permittee shall submit such information, and/or forms as are required by the Department no later than 60 days prior to the above date of expiration.

Hilary Miller, Director
Land and Materials Administration

Maryland
Department of
the Environment

Larry Hogan. Governor
Boyd Rutherford. Lt. Governor

Ben Grumbles. Secretary
Horacio Tablada. Deputy Secretary

CROSS REFERENCE GUIDE FOR COMAR 26.10.01.16

A. COMAR 11.16.01 (incorporates federal transpo1tation regulations as described)

1. 49 CFR 107.501-107.504 (Subpart F – Registration of Cargo Tank Motor Vehicle Manufacturers and Repairers and Cargo Tank Motor Vehicle Assemblers)
2. 49 CFR 107.601-107.620 (Subpart G -Registration of Persons Who Offer or Transport Hazardous Materials)
3. 49 CFR 171 (Subpart C – Hazardous Materials Regulations)
4. 49 CFR 172 Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
5. 49 CFR 173 Shippers – General Requirements for Shipments and Packaging
6. 49 CFR 174 Carriage by Rail
7. 49 CFR 175 Carriage by Aircraft
8. 49 CFR 176 Carriage by Vessels
9. 49 CFR 177 Can-iage by Public Highway
10. 49 CFR 178 Specifications for Packaging
11. 49 CFR 179 Specifications for Tank Cars
12. 49 CFR 180 Continuing Qualification and Maintenance of Packagi ng

B. COMAR 11.21.01 (incorporates federal motor carrier safety regulations as described)

1. 49 CFR 40 Transportation Workplace Drug Testing Programs
2. 49 CFR 382 Controlled Substances and Alcohol Use and Testing
3. 49 CFR 390 Federal Motor Carrier Safety Regulations, General
4. 49 CFR 391 Qualifications of Drivers
5. 49 CFR 392 Driving of Commercial Motor Vehicles
6. 49 CFR 393 Parts and Accessories Necessary for Safe Operation
7. 49 CFR 395 Hours of Service of Drivers
8. 49 CFR 396 Inspection , Repair and Maintenance
9. 49 CFR 397 Transportation of Hazardous Materials; Driving and Parking Rules
10. 49 CFR 398 Transportation of Migrant Workers
11. 49 CFR 399 Employee Safety and Health Standards

.16 Requirements for Oil Delivery by Truck Tank or by Transport.

A. Transfer hose and fittings shall be of a grade suitable for the type of oil product transferred and for the type of delivery.

B. Transfer hoses shall be designed to withstand pressure of the shut-off head of the cargo pump or pump relief valve setting.

C. Any vehicle used in the transport or transfer of oil shall be in compliance with COMAR 11.16.01 and 11.21.01 and NFPA Standard 385, "Standard for Tank Vehicles for Flammable and Combustible Liquids 2000 Edition", which is incorporated by reference.

D. The company holding a valid Oil Operations Permit for delivery by truck tank or by transport shall:

(I) Perform a driver's safety training program that instructs its drivers on spill reporting and containment;

(2) Give the training to each driver on an annual basis; and

(3) Maintain records demonstrating compliance with this subtitle.

.17 Requirements of Drivers of Truck Tanks and Transports.

A A driver operating a truck tank or transport shall comply with the following requirements:

(1) A driver shall operate a truck tank or transport in accordance with NFPA Standard 385, "Tank Vehicles for Flammable and Combustible Liquidsn 2000, which is incorporated by reference;

(2) A driver shall be 21 years old or older as required by Transportation Article, §25-1 11, Annoted Code of Maryland.

B. A driver shall remain within 10 feet and in full and immediate control of the nozzle, shut-off valves, pumps, and emergency operating mechanism for the discharge control valve at all times when loading or unloading oil, and shall stand in a position so as to have the loading or delivery receptacle in full view. If the driver leaves the equipment unattended for any reason, all nozzles, shut-off valves, pumps, and discharge control valves of the dispensing vehicles, as well as those of the receiving facility, shall be turned off or returned to the closed position.

C. A driver shall remain alert_ while the transfer is in progress and shall report immediately to his or her employer or supervisor any unusual condition involving the transfer operation, such as spills, any obvious discrepancies between the quantities delivered and received, or the existence of any equipment defects or unsafe delivery conditions.

D. A driver shall use proper hoses and fittings in the delivery of the oil.

E. Before beginning any transfer, the driver shall:

(1) Ensure that all hose connections are tight; and

(2) Ensure that the tank will hold the amount of product being delivered by:

a.) Gauging the tank;

b.) Using a functional vent whistle;

c.) Inquiring of the capacity and contents from the tank owner and operator;

d.) Using an approved overfill alarm; or

e.) Using a method approved by the Department.

BWI MARSHALL DETAILED OIL STORAGE TANK INVENTORY

New Tank ID	Old Tank ID	Description/Use		Number of Units	Capacity (gallons)					
101-FLV-1A	011A	Emergency Generator Day Tank - Fuel Supply	Building 101 - Field Lighting Vault							
MOBILE-1M	172-MAC-1M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)							
MOBILE-2M	172-MAC-2M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)				Portable Trailer, Single-Walled Steel Tank	Spill kit located in Building 113		
MOBILE-3M	172-MAC-3M	Portable Emergency Generator	Building 112 - Cargo (alley between buildings 112 and 113, air side)				Portable Trailer, Single-Walled Steel Tank	Spill kit located in Building 11		
		Portable Emergency Generator	Building 112 - Behind Cargo Building				Shop-Fabricated, Double-Walled Steel Tank	Equipped with level gauge		
114-CUP-1M							Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Located inside truck on concrete pavement • Equipped with overfill alarm		Trailer is parked within a gated enclosure and require keys for access.
114-CUP-1D						Used Oil/Used Refrigerant Oil	Plastic Drums	• Drums stored indoors on secondary containment pallets. • Spill kit located in Building 114, by the locker room.		Stored in the mechanical room at the CUP (authorized personnel only).
						Refrigeration O	Steel Drums	• Drums stored indoors on secondary containment pallets. • Spill kit located in Building 114, inside the chiller room		Stored in the mechanical room at the CUP (authorized personnel only).
							Tank Truck, Single-Walled Steel Tank	• Drainage as a result of any spills/leaks from paved parking lot drain by gravity to two 20,000-gallon oil/water separators located in front of Building 121) • Equipped with emergency shut-off Spill kit, absorbent material, and 2 fire extinguishers are carried on truck at all times		Within Field Maintenance area (authorized personnel only and typically locked during off-hours).
							Shop-Fabricated, Single-Walled Steel Tank Within Dike Yard	• Dike tank provided • Equipped with high level fuel alarm and visual gauge	N/A	Genset requires keys for access.
							Shop-Fabricated, Double-Walled Steel Tank	• Equipped with Morrison clock gauge; overfill protection valve with audible alarm • Pneumercator ATG with interstitial monitoring	1	Located within the Field Maintenance area; authorized personnel only and locked during-off-hours
							Steel Drum	• Drums stored indoors on secondary containment pallets.	N/A	Enclosed within the equipment building.
						Motor Oil (15/40)	Shop-Fabricated, Single-Walled Steel Tank	• Indoors; located above floor drains that drain to sump • Equipped with Krueger Type D visual gauge; no overfill alarm • Spill kit located in Building 121, by Room 121-13		Within Field Maintenance area (authorized personnel only and locked during off-hours).

New Tank ID		
101-FLV-1A	Within SIDA.	From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-1M		From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-2M		From self-fueling pumps at Field Maintenance or Tank Truck 533
MOBILE-3M		From self-fueling pumps at Field Maintenance or Tank
114-CUP-1M		MAA Field Maintenance (Tank Truck 533)
114-CUP-1D		--
		N/A
		Mansfield Oil Tanker Truck or Tank 116-FM-4A.
		Mansfield Oil Tanker Truck
		Oil Supplied by 55-gal drums

New Tank ID	Old Tank ID			Number of Units	Capacity (gallons)		Construction			
						Motor Oil (10/30)	Shop-Fabricated, Single-Walled Steel Tank			
						Automatic Transmission Fluid	Shop-Fabricated, Single-Walled Steel Tank			
								• sump • Equipped with Krueger Type D visual gauge; no overfill alarm • Spill kit located in Building 121, by Room 121-13	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Oil Supplied by 55-gal drums
								• Indoors; located above floor drains that drain to containment sump • Equipped with Krueger Type D visual gauge; no overfill alarm • Spill kit located in Building 121, by Room 121-13	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).	Oil Supplied by 55-gal drums
								• Single-walled steel tank within 360-gal tank containment unit • Equipped with visual gauge • Spill kit located in Building 121, by Room 121-13	Within the Building 121; locked when not in use.	Used Oil pumped from various oil drainage containers
								• Indoors • Equipped with Morrison dock gauge • Spill kit located in Building 121, by Room 121-13	Within the Building 121; locked when not in use.	#2 Heating oil supplied by Mansfield Oil
		Drum Storage Used Oil Drums	Building 121 - Vehicle Maintenance (Main Garage)				Steel Drum	• Drums stored indoors on secondary containment pallets. • Spill kit located in Building 121, by Room 121-13.	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours).
		AST - Heating Fuel Supply	Building 123 - Old Paint Shop			No. 2 Heating Oil	Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Connected to Pneumercator liquid level control system; equipped with Scully visual gauge; mechanical fill prevention (auto shut-off when tank is 95% full), interstitial sensors, and inventory and leak detection equipment		Within SIDA; access through Gate G.	#2 Heating oil supplied by Mansfield Oil
		AST - Heating Fuel Supply	Building 134 - Vehicle Maintenance (Northeast Corner)				Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Skid mounted on pad • Equipped with Scully gauge		Within SIDA; access through Gate G.	#2 Heating oil supplied by Mansfield Oil
		AST-Used Oil from Drained Filters	Heavy Equipment Shop, Building 137				Shop-Fabricated Double-Walled Galvanized Steel	• Double-walled tank • Equipped with Krueger Product		Within Field Maintenance area (authorized personnel	N/A (filter crusher drain)

[illegible]		[illegible]		Number of Units	Capacity (gallons)				Secondary Containment, Overfill Prevention	Category Per STI SP-001	Security Measures (Indoors, Fencing, Etc.)	Fuel Delivery/ Supply
		AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with Kruger gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
		AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)			Hydraulic Oil		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
		AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Shed Behind Building)			15/40 Heavy Weight Crankcase Oil		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
		AST - Used Oil From Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)			Used Oil		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with Kruger gauge • Equipped with Kruger interstitial leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	Used Oil pumped from various oil drainage containers
		[illegible]	Building 137 - Heavy Equipment Shop (Shed Behind Building)			10/30 Crankcase Oil		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with Kruger leak gauge	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
		AST - Vehicle Maintenance	Building 137 - Heavy Equipment Shop (Indoors)			Crankcase Oil		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank • Equipped with overfill protection valve	1	Located within steel outbuilding behind Building 137; authorized personnel only; locked during off-hours.	MAA employees hand pump the fuel into the tanks from 55-gal drums
	028A	Drum Storage - Used Oil Drums	Building 137 - Heavy Equipment Shop			Crankcase Oil		Steel and Poly Drums	• Drums stored indoors on secondary containment pallets. • Spill kit located in Building 137.	N/A	Indoors within secured facility.	N/A
		Drum – Small Engine Fueling	Building 137- Heavy Equipment Shop (Yellow Shed Behind Building)						• Drum stored indoors on secondary containment pallet inside shed. • Spill kit located inside yellow shed.	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours)	N/A
		Drum Storage – Vehicle Maintenance	Building 137- Heavy Equipment Shop (Shed Behind Building)						• Drum stored indoors on secondary containment pallet inside shed. • Spill kit located in Building 137	N/A	Within Field Maintenance area (authorized personnel only and typically locked during off-hours)	N/A
140-DPG-1A		Emergency Generator Sub-Base Tank - Fuel Supply	Building 140 - Daily Parking Garage (On Hill to West of Garage)					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank. • Equipped with visual gauge, high fuel level alarm, and rupture basin drain.	1	Within locked area; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
155-KAUF-2A	026A, C-2A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank. • Equipped with visual gauge and interstitial alarm; no high level fuel alarm.	3	Within fencing that is not locked, but genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
155-KAUF-3A	155-KAUF 1A	Emergency Generator Sub-Base Tank - Fuel Supply	Building 155 - Kauffman Building					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank. • Equipped with visual gauge, primary liquid level sensors in interstitial space.	1	Within fencing that is not locked, but genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
160-HPG-1A		Emergency Generator Day Tank - Fuel Supply	Building 160 - Hourly Parking Garage (Emergency Generator Room - First Floor Across From 1G Parking Area)					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank. • Equipped with visual gauge and primary leak detector; no leak detector for interstitial.	1	Within locked room.	Fuel supplied by UST 004

New Tank ID	Old Tank ID	[redacted]	[redacted]	Number of Units	Capacity (gallons)	[redacted]	[redacted]	[redacted]	Secondary Containment, Overfill Prevention	Category Per STI SP 001	Security Measures (Indoors, Fencing, Etc.)	[redacted]
160-HPG-2A		Emergency Generator Sub-Base Tank - Fuel Supply	Building 160 - Hourly Parking Garage (By Terminal Loop Below					Shop-Fabricated, Double Walled Steel Tank	• Double-walled tank. • Equipped with basin alarm for fuel detection in secondary	I	Within locked gate; genset requires keys for access.	Fuel supplied by UST 063.
172-MAC-1A		Emergency Generator Sub-Base Tank - Fuel Supply.	Building 172 - MAC Building (By MAA Radio Tower)					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank. • Equipped with visual gauge and high level fuel alarm. • Spill kit located in Building 172.		Within locked gate that requires security badge for access; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
172-MAC-1D		Drum Storage - Stock Oils for Vehicle or Equipment Use	Building 172 - MAC Building(Room 180)	[redacted]	Up to 1,375 (55 gal/ea.)	Gear Oil, Hydraulic Oil, Motor Oil, Lubricating Oil, Transmission		Steel Drums	• Indoors; doors of room in which drums are stored have concrete lips to prevent drainage outdoors. • Confirm spill kit location.		Indoors within secured facility.	
[redacted]		AST - Firefighting Training Fu	Fire Training Facility				1988 / Modified in 2006	Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	• Single-walled tank within steel containment vessel. • Equipped with Morrison Clock Gauge.		Within locked gate	Fuel supplied by Contractor hired by Fire and Rescue
		AST - Firefighting Training Fuel	ire Training Facility					Shop-Fabricated, Single-Walled Steel Tank Within Steel Containment Vessel	• Single-walled tank within steel containment vessel. Drain valve provided on containment vessel (valve observed to be leaking). • Equipped with Morrison Clock Gauge.		Within locked gate.	Fuel supplied by Contractor hired by Fire and Rescue.
[redacted]	030A	AST - Firefighting Training Used Fuel/Waste	Fire Training Facility			Jet A Fuel / Firefighting Foam / Water Mixture		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank within secondary containment concrete berm (FTF-4A located within same berm). Drainage from containment flows through rock bed. • Equipped with Morrison clock gauge.		Within locked gate.	No delivery to this tank – flow into tank is pumped from the fire training pit located uphill from Tanks 030A and 031A.
	031A	AST - Firefighting Training Used Fuel/Waste.	Fire Training Facility		20,000	Jet A Fuel / Firefighting Foam / Water Mixture		Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank within secondary containment concrete berm (AST 030A located within same berm). Drainage from containment flows through rock bed. • Equipped with Morrison clock		Within locked gate.	No delivery to this tank – flow into tank is pumped from the fire training pit located uphill from Tanks 030A and 031A.
105-ARFF-1D		Drum Storage	Building 105 - Aircraft Rescue and Firefighting Facility (ARFF)			Oil		Steel & Poly Drums Shop-Fabricated, Double-Walled Steel Tank	• Drums stored within Room 81on secondary containment pallets. • Spill kit located in Room 81		Stored in Room 81 of building 105. Only authorized personnel can enter Building	N/A
MELT-1 through MELT-8		Mobile AST affixed to each of Snow Melter Units	Stored within P-Lot during off-season, and within the SIDA at General Aviation during De-Icing Season.			Ultra-Low Sulfur Diesel		Shop-Fabricated, Double-Walled Steel Tank	Double-walled tank Spill Kit Mounted to Melter Unit		Stored within P-Lot during off-season, and within the SIDA at General Aviation during De-Icing Season.	MAA
[redacted]		Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - Terminal A (Room AT049A)					Shop-Fabricated, Double-Walled Steel Tank	• Double-walled tank; drain inside room. • Equipped with visual gauge. • Spill kit in Room AT049A		Within SIDA; security badge required for access. Genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
		Emergency Generator Sub-Base Tank - Fuel Supply	Pier A - By Triturator (15R Deicing)						• Double-walled tank. • Equipped with visual gauge.		Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)
		Emergency Generator Sub-Base Tank - Fuel Supply	Pier B - Domestic Terminal (Gate B-7)					Shop-Fabricated, Single-Walled Steel Tank Within Dike Tank	[redacted]		Within SIDA; genset requires keys for access.	MAA Field Maintenance (Tank Truck 533)

New Tani< 10	Old Tank	Oemlptloo/U<•	lo<>1ion	Number of Uni<s	Capaclty 1;allon•I	Content,	1e>r In"allod	Const,uct1on	Secondary Containmenl, Overfill Pto,icn!lon	Category PorSTISP 1101	Security Moa,ur<s linOoo'!, foncin1, Etc.]	Fuol Oell,eryf Supply
t-lA		"'8•ncv Gone,a1orSub-Bm, Tank- ruol Supplv	Pie, C – Between Gate C·1 and C towe,	▾	3,;40	0,,,, ''''''	]Otl	Silop·F•brltat«I, Doub!,-Walled Steel Tonk	• Double-walled lank. • fnu•ooodw1th vl,ual flauge andl lnlem,.i,l alatm; no h•Bh :wel fuel	▾	Withm smA, gen,ot coquires keys for access.	MAA F,old Malntenan,e lfon (rvck $331
C·4A		(moren<;\l Gone1ator Sub·!lase Tank , Fae!Supply	p;e,c -Gate C·4	▾	1110	oiesel fuel	2013	Sop-Cal,r,,ated, DwOle-Walled Steel ra,k	• Oouble·waliod '"''· • Eu;ppod with v.<ual gauge artdl mtor,1,t,alalo<m; Gems ser1e, lS·	▾	W1thi" SIOA; r,eo,et requires "'''ro, '''''''''.	MAA f<eld Mai'''''''''<" \Tank TruOk 5'BJ
E·1A	047A	FmOfgency Generator Sub-aa,e Tank - Fuel Supply	Ple< (•lr.,eroatlonal To•mlnal (pubic s,de o! 1ermlna')	▾	sea	01e<el fue•	1010	Shop,fabrimed, DouOle·w,11ed Sto01Tank	• Double,wal•od tank. • Equ;pped with ,1,ual gauge and hiih level fuel alacm,	▾	W1th10 SIOA and ,ecured '''''' of Termmal that<equi,...,t.u<<om, '''''ity bad•-	MMfeeld Maintenance {Tank Truck 5lll
£-lA	04A	AST· Fuel Supply to ASTt-lA (for Cmerr,crn:y Gener.tori	Pier F. - lnteroational Te,')'11nal	▾	;-	01••el f u•I	20JO	Shop,fabric.ued, Do,ii>lo·w,11e<1s1ce;r,"1.	• Double-walled inte,al tvne tank. • Connemd to Pneumerc,to, lcou,d tevol «;ntrnl ,vstem; eqU<pped with Mor,l,on <lock aauo, me<hamcal 1,11 orevenlloo, and au<ilt1le ovortlll al,nn	▾	W1th1n SIDA and ,oturod area of To,rninal tha, roqu,,o, Customs" '"'</ badge.	MAA•1old Maintcnam.e(Tank T,u,Ulll
£.3A	OOM	Cmeriency Genoratot Day Tonk Fu•l 5uooly	Pier f lnternat,nnal Terminal (Roon	▾	▾111	D1esel fuel	1997	Shop e,,,cated, s;nglc, Walled "el lankW,ch,n D«oTank	• Indoor,; <l<ke tan c.1pacity of 391 gallon,. • Equipped w,1h h,gh 1,,01fuel	▾	With,n SIDA and '''''''''area of Temunal th>t rou;,e, Custom, secunty badge	O,y Tan,Fuol ,uap1;eo by AST f-1A,

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APPENDIX N

TANK LOCATIONS WITH FLOW PATHWAYS

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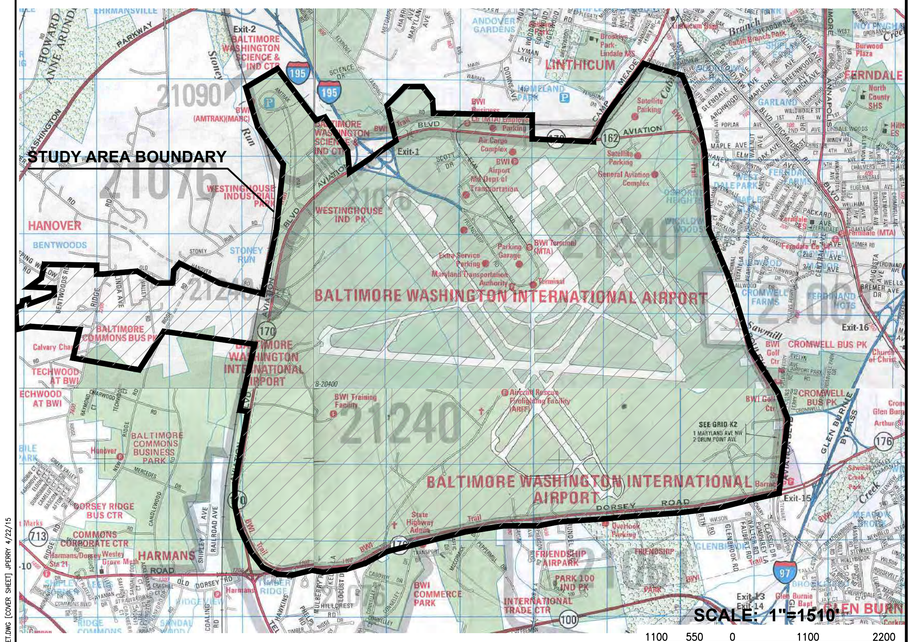
BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

AUGUST 2022

VICINITY MAP

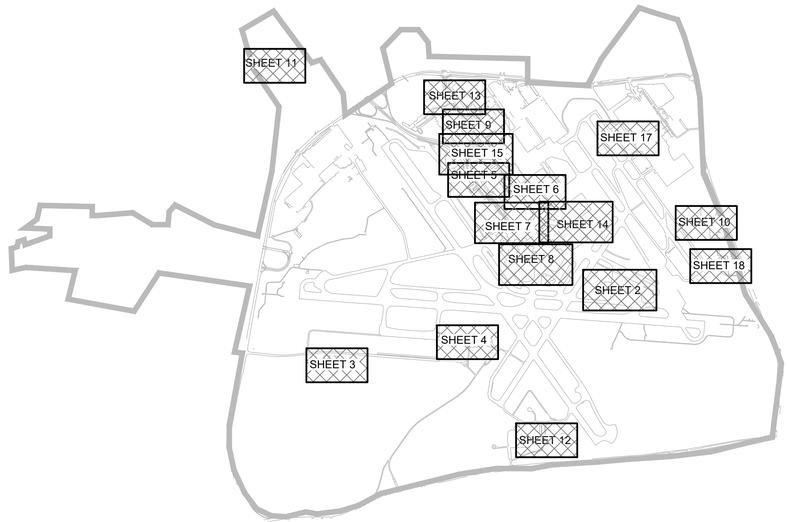


Source: ADC of Alexandria, Inc., 1998. Anne Arundel County, Maryland. Used with permission.

DRAWING INDEX

DRAWING NO.	SHEET TITLE
1	TITLE SHEET
2	STORAGE TANK LOCATIONS (28 DEICING PAD AND 28 PUMP STATION)
3	STORAGE TANK LOCATIONS (FIRE TRAINING FACILITY)
4	STORAGE TANK LOCATIONS (AIRCRAFT RESCUE AND FIREFIGHTING FACILITY)
5	STORAGE TANK LOCATIONS (TRITURATOR, GLYCOL FACILITY/PIER A, AND NORTH SUBSTATION)
6	STORAGE TANK LOCATIONS (INTERNATIONAL TERMINAL/PIER E)
7	STORAGE TANK LOCATIONS (HOURLY PARKING GARAGE, TERMINAL AREAS, AND PIERS A, B, C)
8	STORAGE TANK LOCATIONS (FIELD LIGHTING VAULT, TERMINAL AREAS, AND PIERS B, C)
9	STORAGE TANK LOCATIONS (DAILY PARKING GARAGE, FIELD MAINTENANCE, VEHICLE MAINTENANCE, AND EQUIPMENT SHOP)
10	STORAGE TANK LOCATIONS (MAC BUILDING)
11	STORAGE TANK LOCATIONS (KAUFFMAN BUILDING)
12	STORAGE TANK LOCATIONS (SOUTH SUBSTATION)
13	STORAGE TANK LOCATIONS (OLD PAINT SHOP)
14	STORAGE TANK LOCATIONS (PIER D)
15	STORAGE TANK LOCATIONS (UTILITY BUILDING)
16	STORAGE TANK LOCATIONS (INTERNATIONAL TERMINAL/PIER E)
17	MELT-1 THROUGH MELT-8 (STORAGE AREA)
18	STORAGE TANK LOCATIONS

LOCATION MAP



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MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION
OFFICE OF ENGINEERING AND CONSTRUCTION MANAGEMENT

APPROVED BY DATE

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

TITLE SHEET

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
DESIGNED BY: MP	SCALE: AS SHOWN
DRAWN BY: JAP	FILE NAME: TITLE SHEET
CHECKED BY: JHY	DRAWING NUMBER: 1
PROJECT MANAGER: JHY	SHEET NUMBER: 1 OF 15

FILE PATH: (LOVETON (J):\PROJECTS\1536001\DWG\PRODUCTION\TITLE SHEET.DWG [COVER SHEET] JHORN 4/22/15

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
28PS-1T	192	DIELECTRIC FLUID (NON-PCB)	GROUND SURFACE TO STORM DRAINS THAT DISCHARGE TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY.
28DP-1T	192	DIELECTRIC FLUID (NON-PCB)	

FILE PATH: (LOVETON) Q:\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 2] JPERRY 8/18/22

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LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDEREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (28 DEICING PAD AND 28 PUMP STATION)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE	AUGUST 2022	PROJECT NUMBER	1536001.0002
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CHECKED BY	JHY	DRAWING NUMBER	2
PROJECT MANAGER	JHY	SHEET NUMBER	2 OF 18

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MATHISON WAY

#P21 FIREFIGHTER
TRAINING FACILITY

AST FTF-1A

AST FTF-2A

AST FTF-3A

AST FTF-4A

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
FTF-1A	5,000	JET A FUEL	OVERLAND INTO A NEARBY FORESTED AREA OR A DRAINAGE CHANNEL NEXT TO A STONE ACCESS ROAD TO THE SOUTH, AND THEN TO THE HAWKINS BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
FTF-2A	10,000	JET A FUEL	
FTF-3A	20,000	JET A FUEL / FIREFIGHTING FOAM / WATER MIXTURE	
FTF-4A	20,000	JET A FUEL / FIREFIGHTING FOAM / WATER MIXTURE	

FILE PATH: {LOCATION} A:\PROJECTS\1536001\DWG\PRODUCTION FIGURES.DWG [SHEET 3] JPERRY 8/10/22

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- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- **P31** POND #
- **SF5** STORM FILTER #
- **US2** UNDERREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (FIRE TRAINING FACILITY)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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DRAWN BY: JAP	FILE NAME: FIGURES
CHECKED BY: JHY	DRAWING NUMBER: 3
PROJECT MANAGER: JHY	SHEET NUMBER: 3 OF 18

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GRAPHIC SCALE IN FEET

UST 012

#105 AIRCRAFT RESCUE AND FIREFIGHTING FACILITY

105-ARFF-1D

TRANSFORMER 105-ARFF-1T

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
105-ARFF-1T	224	DIELECTRIC FLUID (NON-PCB)	GROUND SURFACE TO STORM DRAINS THAT DISCHARGE TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.

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- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
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- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERGROUND STORAGE #
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- SANITARY SEWER
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- MATCHLINE
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- GRASS, RIP RAP, AND CONCRETE SWALES
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- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (AIRCRAFT RESCUE AND FIREFIGHTING FACILITY)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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CHECKED BY: JHY	DRAWING NUMBER: 4
PROJECT MANAGER: JHY	SHEET NUMBER: 4 OF 18

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GRAPHIC SCALE IN FEET

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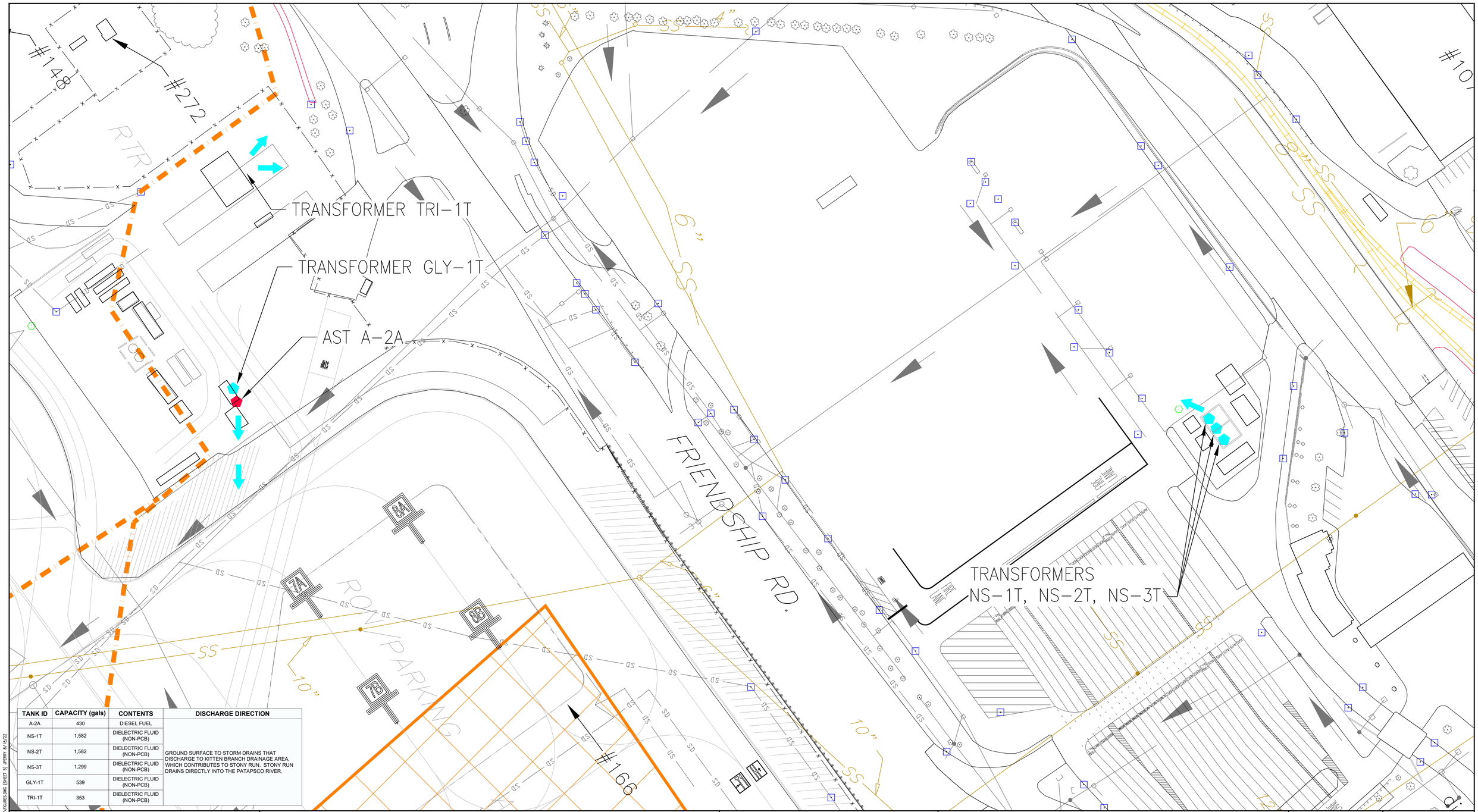

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
A-2A	430	DIESEL FUEL	GROUND SURFACE TO STORM DRAINS THAT DISCHARGE TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
NS-1T	1,582	DIELECTRIC FLUID (NON-PCB)	
NS-2T	1,582	DIELECTRIC FLUID (NON-PCB)	
NS-3T	1,299	DIELECTRIC FLUID (NON-PCB)	
GLY-1T	539	DIELECTRIC FLUID (NON-PCB)	
TRI-1T	353	DIELECTRIC FLUID (NON-PCB)	

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LEGEND

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- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERGROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (TRITURATOR, GLYCOL FACILITY/PIER A, AND NORTH SUBSTATION)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
DESIGNED BY: MP	SCALE: AS SHOWN
DRAWN BY: JAP	FILE NAME: FIGURES
CHECKED BY: JHY	DRAWING NUMBER: 5
PROJECT MANAGER: JHY	SHEET NUMBER: 5 OF 18

50 25 0 50 100
GRAPHIC SCALE IN FEET

FILE PATH: [LOCATION] Q:\PROJECTS\1536001\GMS\PRODUCTION FIGURES.GMS [SHEET 5] JPERRY 8/18/22

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
E-1A	660	DIESEL FUEL	INTO NEARBY STORM CHANNELS AND INTO STORMWATER MANAGEMENT BASINS, THEN TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY. LEAKS FROM TANK TRUCK WOULD DRAIN THROUGH OUTSIDE STORMWATER DRAINS AND OIL/WATER SEPARATORS PRIOR TO DISCHARGING TO STORMWATER DETENTION BASINS THAT DISCHARGE TO MUDDY BRIDGE.
E-2A	3,000	DIESEL FUEL	
E-3A	150	DIESEL FUEL	
INT-1602-1E	135	HYDRAULIC OIL	TO BUILDING INTERIOR.
INT-1703-1E	140	HYDRAULIC OIL	
CUST-1210-1E	120	HYDRAULIC OIL	
CUST-1210-2E	120	HYDRAULIC OIL	

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LEGEND

WETLAND
SWM STRUCTURE
FIELD SURVEYED STREAM
STREAM
BUILDING
ROADWAY/RUNWAY
RAIL LINE
TRENCH DRAIN
INFILTRATION TRENCH
GLYCOL PIPELINE
KITTEN BRANCH DRAINAGE AREA
DRAINAGE DIVIDE
AIRCRAFT DEICING AREA
STONY RUN WATERSHED AREA
WATERSHED DIVIDE
FENCELINE
EXISTING CONTOUR
#270 BUILDING #/AREA #
DISCHARGE FLOW PATHWAYS
P31 POND #
SF5 STORM FILTER #
US2 UNDEREROUND STORAGE #
UNDERGROUND STORMWATER FACILITY
SANITARY SEWER
STORM DRAIN W/DIRECTION OF FLOW
MATCHLINE
STORMCEPTOR
OIL/WATER SEPARATOR
TRENCH DRAIN
INLET
DIVERSION VAULT
INFILTRATION TRENCH
GRASS, RIP RAP, AND CONCRETE SWALES
STORM FILTER
OUTLET
DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

ABOVEGROUND STORAGE TANK (AST)
UNDERGROUND STORAGE TANK (UST)
DRUM STORAGE AREA
OIL-FILLED OPERATIONAL EQUIPMENT
UNLOADING/LOADING AREA
TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (INTERNATIONAL TERMINAL/PIER E)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

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PROJECT MANAGER: JHY	SHEET NUMBER: 6 OF 18

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GRAPHIC SCALE IN FEET

FILE PATH: (LOVETON) Q:\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 6] JPERRY 8/18/22

ELEVATOR A-A124-1E

AST A-1A

ELEVATOR A-AT029-2E

ELEVATOR A-AT108-5E

ELEVATOR A-AT108-4E

ELEVATOR A-AT029-3E

HOURLY PARKING GARAGE

#160

UST 004

AST 160-HPG-1A

AST 160-HPG-2A

UST 063

ELEVATOR USO-NTE265-1E

ELEVATOR D-SKYD12-6E

ELEVATOR D-SKYD11-5E

ELEVATOR NT110-1E

ELEVATOR CT104K-3E

ELEVATOR CT104K-4E

C-3A

ELEVATOR CT10G-1E

TERMINAL

PIER C

C-4A

ELEVATOR OBS-ST105B-1E

PIER A

ELEVATOR A-BT013-2E

ELEVATOR A-BT013-1E

ELEVATOR A-BT131-3E

ELEVATOR A-BT131-4E

ELEVATOR B-SKYB12-1E

ELEVATOR B-SKYB13-2E

ELEVATOR ST120-1E

#100

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
160-HPG-1A	200	DIESEL FUEL	TO SECONDARY CONTAINMENT (SUMP, BUILDING, OR PAVEMENT). IF CONTAINMENT FAILS, THROUGH STORMWATER DRAINS AND THEN OIL/WATER SEPARATORS TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
160-HPG-2A	375	DIESEL FUEL	
A-1A	600	DIESEL FUEL	
C-4A	800	DIESEL FUEL	
C-3A	3,540	DIESEL FUEL	INTO NEARBY STORM CHANNELS AND INTO STORMWATER MANAGEMENT BASINS, THEN TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY.
A-A124-1E	150	HYDRAULIC OIL	TO BUILDING INTERIOR.
A-AT029-2E	145	HYDRAULIC OIL	
A-AT029-3E	125	HYDRAULIC OIL	
A-AT108-4E	140	HYDRAULIC OIL	
A-AT108-5E	140	HYDRAULIC OIL	
A-BT013-1E	140	HYDRAULIC OIL	
A-BT013-2E	150	HYDRAULIC OIL	
A-BT131-3E	140	HYDRAULIC OIL	
A-BT131-4E	130	HYDRAULIC OIL	
B-SKYB12-1E	140	HYDRAULIC OIL	
B-SKYB13-2E	110	HYDRAULIC OIL	
D-SKYD11-5E	90	HYDRAULIC OIL	
D-SKYD12-6E	100	HYDRAULIC OIL	
CT106-1E	80	HYDRAULIC OIL	
CT104K-3E	130	HYDRAULIC OIL	
CT104K-4E	130	HYDRAULIC OIL	
NT110-1E	130	HYDRAULIC OIL	
OBS-ST105B-1E	120	HYDRAULIC OIL	
ST120-1E	100	HYDRAULIC OIL	
USO-NTE265-1E	120	HYDRAULIC OIL	

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LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERGROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (HOURLY PARKING GARAGE, TERMINAL AREAS, AND PIERS A, B, C)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

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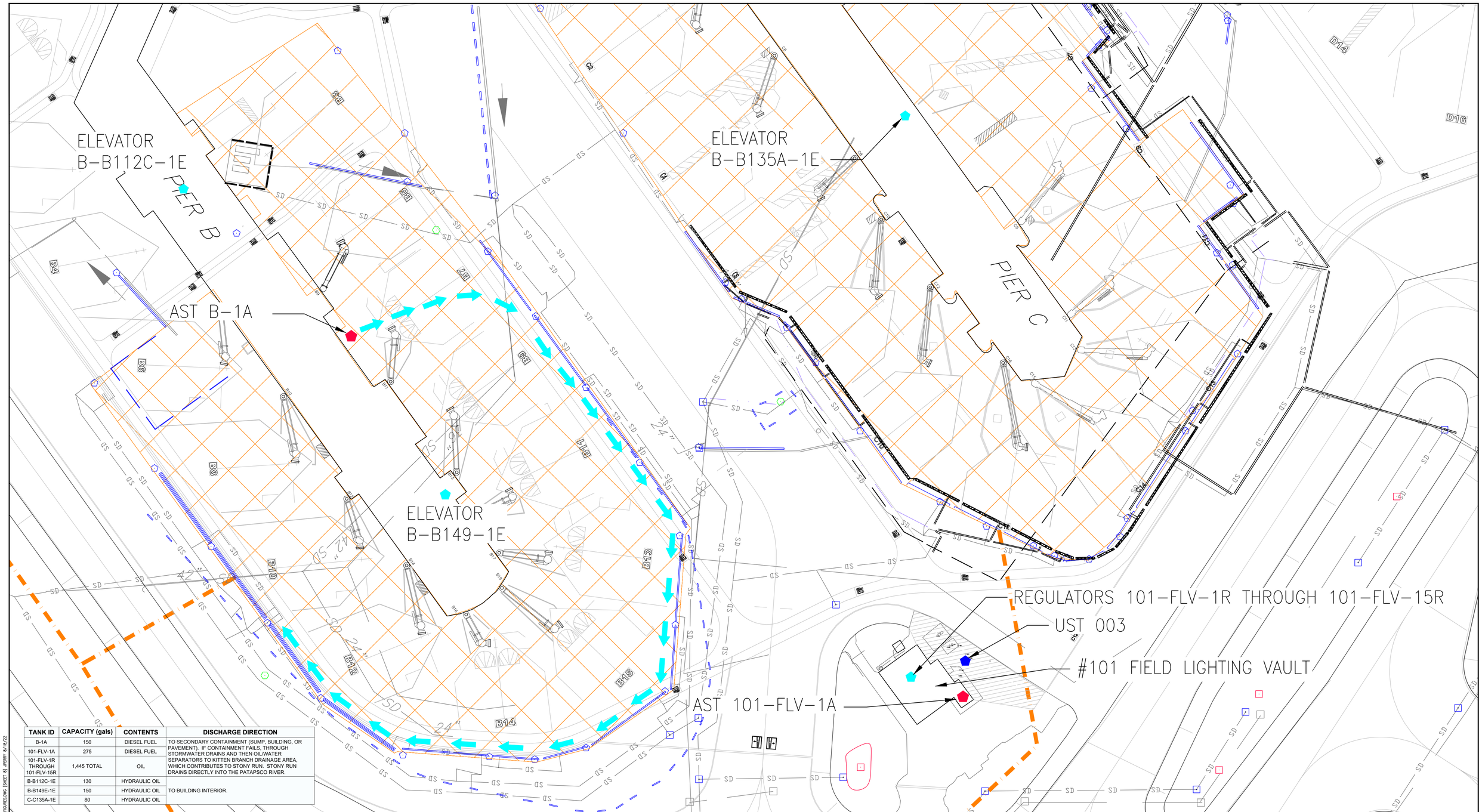
CHECKED BY: JHY	DRAWING NUMBER: 7
PROJECT MANAGER: JHY	SHEET NUMBER: 7 OF 18

60 30 0 60 120
GRAPHIC SCALE IN FEET

FILE PATH: [LOCATION] Q:\PROJECTS\1536001\GIS\PRODUCTION\FIGURES.MXD [SHEET 7] JPERRY 8/18/22



TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
B-1A	150	DIESEL FUEL	TO SECONDARY CONTAINMENT (SUMP, BUILDING, OR PAVEMENT). IF CONTAINMENT FAILS, THROUGH STORMWATER DRAINS AND THEN OIL/WATER SEPARATORS TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
101-FLV-1A	275	DIESEL FUEL	
101-FLV-1R THROUGH 101-FLV-15R	1,445 TOTAL	OIL	
B-B112C-1E	130	HYDRAULIC OIL	
B-B149E-1E	150	HYDRAULIC OIL	TO BUILDING INTERIOR.
C-C135A-1E	80	HYDRAULIC OIL	

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- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERGROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (FIELD LIGHTING VAULT, TERMINAL AREAS, AND PIERS B, C)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
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MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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60 30 0 60 120
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FILE PATH: (LOKATION) G:\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 8] JKPDW 8/19/22

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
116-FM-2A	375	DIESEL FUEL	BUILDING 121: THROUGH FLOOR DRAINS TO CLOSED SUMP. BUILDING 116, BUILDING 137, AND DAILY PARKING GARAGE: ONTO ASPHALT TOWARDS VORTECHS® STORMWATER TREATMENT SYSTEM THAT DISCHARGE TO THE SACHS BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO KITTEN BRANCH, A LARGER TRIBUTARY TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
116-FM-4A	4000	DIESEL FUEL	
121-VM-1A	275	MOTOR OIL (15/40)	
121-VM-2A	275	MOTOR OIL (10/30)	
121-VM-3A	275	AUTOMATIC TRANSMISSION FLUID	
121-VM-4A	275	HYDRAULIC OIL	
121-VM-5A	275	MOTOR OIL (5/30)	
121-VM-6A	275	USED OIL	
121-VM-7A	250	HEATING OIL	
134-VM-1A	500	HEATING OIL	
137-ES-6A	240	AUTOMATIC TRANSMISSION FLUID	
137-ES-7A	240	HEATING OIL	
137-ES-8A	240	MOTOR OIL (15/40)	
137-ES-9A	240	USED OIL	
137-ES-10A	60	10/30 CRANKCASE OIL	
137-ES-11A	60	CRANKCASE OIL	
137-ES-1D	UP TO 275 (55 GAL/EA.) (55 GAL/EA.)	USED OIL	
140-DPG-1A	1750	DIESEL FUEL	
ONS-1T	1545	DIELECTRIC FLUID (NON-PCB)	
TANK TRUCK 533	2700	DIESEL FUEL	ONTO ASPHALT TOWARDS OWS THAT DISCHARGES TO THE SACHS BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO KITTEN BRANCH, A LARGER TRIBUTARY TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.

LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDEREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

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STORAGE TANK LOCATIONS (DAILY PARKING GARAGE, FIELD MAINTENANCE, VEHICLE MAINTENANCE, AND EQUIPMENT SHOP)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
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MARYLAND ENVIRONMENTAL SERVICE, INC.

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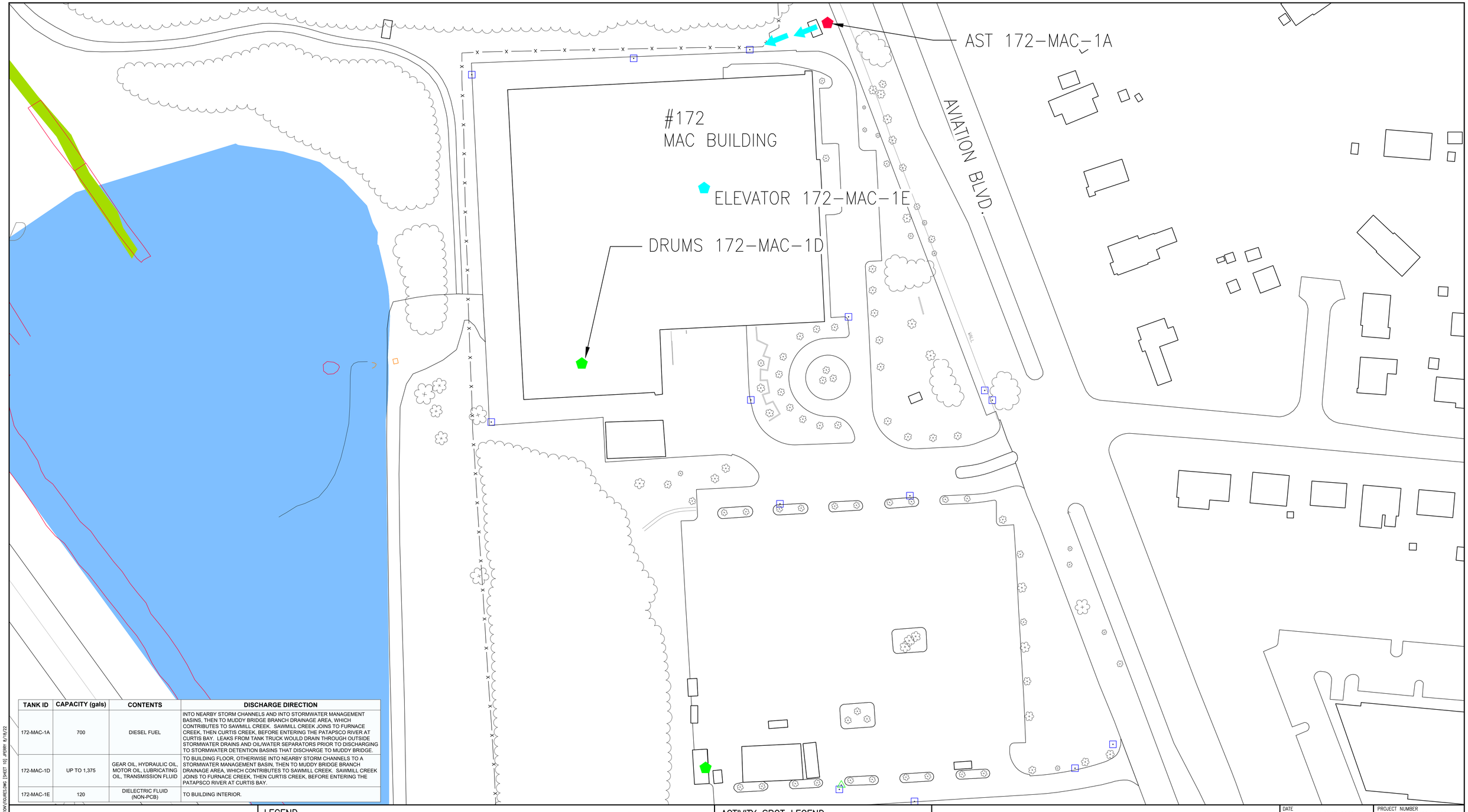
GRAPHIC SCALE IN FEET

FILE PATH: (LOVETON) (K:\PROJECTS\1536001\CAD\PRODUCTION\FIGURES.DWG [SHEET 9] JPERRY 8/19/22



TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
172-MAC-1A	700	DIESEL FUEL	INTO NEARBY STORM CHANNELS AND INTO STORMWATER MANAGEMENT BASINS, THEN TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY. LEAKS FROM TANK TRUCK WOULD DRAIN THROUGH OUTSIDE STORMWATER DRAINS AND OIL/WATER SEPARATORS PRIOR TO DISCHARGING TO STORMWATER DETENTION BASINS THAT DISCHARGE TO MUDDY BRIDGE.
172-MAC-1D	UP TO 1,375	GEAR OIL, HYDRAULIC OIL, MOTOR OIL, LUBRICATING OIL, TRANSMISSION FLUID	TO BUILDING FLOOR, OTHERWISE INTO NEARBY STORM CHANNELS TO A STORMWATER MANAGEMENT BASIN, THEN TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY.
172-MAC-1E	120	DIELECTRIC FLUID (NON-PCB)	TO BUILDING INTERIOR.

FILE PATH: (LOCATION) J:\PROJECTS\1536001\CAD\PRODUCTION\FIGURES.DWG [SHEET 10] JPERRY 8/18/22

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LEGEND

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- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDEREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
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- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (MAC BUILDING)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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PROJECT MANAGER: JHY	SHEET NUMBER: 10 OF 18

50 25 0 50 100
GRAPHIC SCALE IN FEET

#168

#147 BWI AMTRAK/MARC STATION

AST 155-KAUF-3A

AST 155-KAUF-2A

#155 KAUFFMAN BUILDING

15" SS

AMTRAK WAY

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
155-KAUF-2A	411	DIESEL FUEL	IF CONTAINMENT FAILS, THROUGH STORMWATER DRAINS AND THEN OIL/WATER SEPARATORS TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
155-KAUF-3A	310	DIESEL FUEL	

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LEGEND

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- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERERROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
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- TRENCH DRAIN
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- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (KAUFFMAN BUILDING)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
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MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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CHECKED BY: JHY	DRAWING NUMBER: 11
PROJECT MANAGER: JHY	SHEET NUMBER: 11 OF 18

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GRAPHIC SCALE IN FEET

FILE PATH: L:\ACTIVE\BWI\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 11] JPERRY 9/19/22

OVER FLOW LOT A

TRANSFORMERS
SS-1T, SS-2T, SS-3T

DORSEY ROAD (MD RT. 76)

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
SS-1T	940	DIELECTRIC FLUID (NON-PCB)	GROUND SURFACE TO STORM DRAINS THAT DISCHARGE TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY.
SS-2T	940	DIELECTRIC FLUID (NON-PCB)	
SS-3T	1582	DIELECTRIC FLUID (NON-PCB)	

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- BUILDING
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- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH — DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN — WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 — BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 — POND #
- SF5 — STORM FILTER #
- US2 — UNDERERROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
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ACTIVITY SPOT LEGEND

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- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (SOUTH SUBSTATION)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

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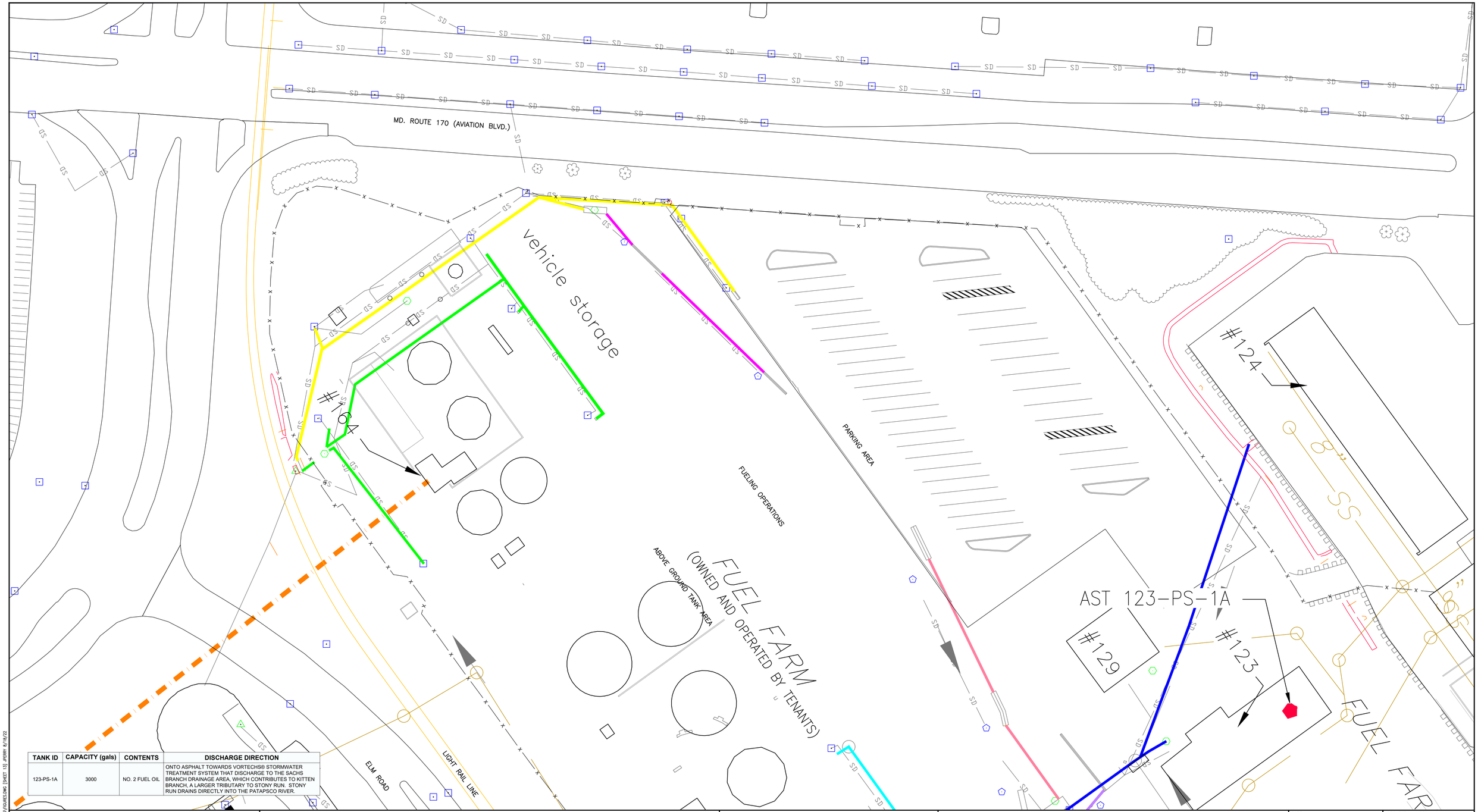
50 25 0 50 100
GRAPHIC SCALE IN FEET

FILE PATH: [LOCATION] Q:\PROJECTS\1536001\GIS\PRODUCTION\FIGURES.DWG [SHEET 12] JPERRY 8/16/22



TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
123-PS-1A	3000	NO. 2 FUEL OIL	ONTO ASPHALT TOWARDS VORTECHS® STORMWATER TREATMENT SYSTEM THAT DISCHARGE TO THE SACHS BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO KITTEN BRANCH, A LARGER TRIBUTARY TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.

BALTIMORE/WASHINGTON INTERNATIONAL Thurgood Marshall AIRPORT

EA ENGINEERING, SCIENCE, AND TECHNOLOGY
Hunt Valley Center
225 Schilling Circle
Hunt Valley, Maryland 21031
(410) 584-7000

LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (OLD PAINT SHOP)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
DESIGNED BY: MP	SCALE: AS SHOWN
DRAWN BY: JAP	FILE NAME: FIGURES
CHECKED BY: JHY	DRAWING NUMBER: 13
PROJECT MANAGER: JHY	SHEET NUMBER: 13 OF 18

50 25 0 50 100
GRAPHIC SCALE IN FEET

FILE PATH: (LOCATION) Q:\PROJECTS\1536001\GIS\PRODUCTION\FIGURES.MXD [SHEET 13] JPERRY 8/19/22

ELEVATOR D-DX113C-1E

PIER D/Y

ELEVATOR D-DY100L-1E

PIER D/X

ELEVATOR D-DX151L-1E

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
D-DX151-1E	130	HYDRAULIC OIL	
D-DY100L-1E	120	HYDRAULIC OIL	TO BUILDING INTERIOR.
D-DY113C-1E	130	HYDRAULIC OIL	

FILE PATH: [LOKTION] Q:\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 14] JHORRY 8/8/22

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LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERERROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (PIER D)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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CHECKED BY: JHY	DRAWING NUMBER: 14
PROJECT MANAGER: JHY	SHEET NUMBER: 14 OF 18

60 30 0 60 120
GRAPHIC SCALE IN FEET

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
114-CUP-1M	2800	DIESEL FUEL	TO SECONDARY CONTAINMENT (SUMP, BUILDING, OR PAVEMENT). IF CONTAINMENT FAILS, THROUGH STORMWATER DRAINS AND THEN OIL/WATER SEPARATORS TO KITTEN BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
MOBILE-1M	100	DIESEL FUEL	ONTO ASPHALT TOWARDS VORTECHS® STORMWATER TREATMENT SYSTEM THAT DISCHARGE TO THE SACHS BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO KITTEN BRANCH, A LARGER TRIBUTARY TO STONY RUN. STONY RUN DRAINS DIRECTLY INTO THE PATAPSCO RIVER.
MOBILE-2M	160	DIESEL FUEL	
MOBILE-3M	80	DIESEL FUEL	
MOBILE-4M	1200	DIESEL FUEL	

LEGEND

WETLAND
SWM STRUCTURE
FIELD SURVEYED STREAM
STREAM
BUILDING
ROADWAY/RUNWAY
RAIL LINE
TRENCH DRAIN
INFILTRATION TRENCH
GLYCOL PIPELINE
KITTEN BRANCH DRAINAGE AREA
DRAINAGE DIVIDE
AIRCRAFT DEICING AREA
STONY RUN WATERSHED AREA
WATERSHED DIVIDE
FENCELINE
EXISTING CONTOUR
#270 BUILDING #/AREA #
DISCHARGE FLOW PATHWAYS
P31 POND #
SF5 STORM FILTER #
US2 UNDEREROUND STORAGE #
UNDERGROUND STORMWATER FACILITY
SANITARY SEWER
STORM DRAIN W/DIRECTION OF FLOW
MATCHLINE
STORMCEPTOR
OIL/WATER SEPARATOR
TRENCH DRAIN
INLET
DIVERSION VAULT
INFILTRATION TRENCH
GRASS, RIP RAP, AND CONCRETE SWALES
STORM FILTER
OUTLET
DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

ABOVEGROUND STORAGE TANK (AST)
UNDERGROUND STORAGE TANK (UST)
DRUM STORAGE AREA
OIL-FILLED OPERATIONAL EQUIPMENT
UNLOADING/LOADING AREA
TANK TRUCK/MOBILE STORAGE PARKING AREA

N

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225 Schilling Circle
Hunt Valley, Maryland 21031
(410) 584-7000

BALTIMORE/WASHINGTON INTERNATIONAL
THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (UTILITY BUILDING)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE	AUGUST 2022	PROJECT NUMBER	1536001.0002
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CHECKED BY	JHY	DRAWING NUMBER	15
PROJECT MANAGER	JHY	SHEET NUMBER	15 OF 18

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GRAPHIC SCALE IN FEET

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TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
E-4A	555	DIESEL FUEL	INTO NEARBY STORM CHANNELS AND INTO STORMWATER MANAGEMENT BASINS, THEN TO MUDDY BRIDGE BRANCH DRAINAGE AREA, WHICH CONTRIBUTES TO SAWMILL CREEK. SAWMILL CREEK JOINS TO FURNACE CREEK, THEN CURTIS CREEK, BEFORE ENTERING THE PATAPSCO RIVER AT CURTIS BAY.

E-4A

PIER E

F18 F18A F19 F20 F20A F21 F22

LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 POND #
- SF5 STORM FILTER #
- US2 UNDERGROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
- SANITARY SEWER
- STORM DRAIN W/DIRECTION OF FLOW
- MATCHLINE
- STORMCEPTOR
- OIL/WATER SEPARATOR
- TRENCH DRAIN
- INLET
- DIVERSION VAULT
- INFILTRATION TRENCH
- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
- DRUM STORAGE AREA
- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL Thurgood Marshall AIRPORT

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Hunt Valley, Maryland 21031
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BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS (INTERNATIONAL TERMINAL/PIER E)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
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DRAWN BY: JAP	FILE NAME: FIGURES
CHECKED BY: JHY	DRAWING NUMBER: 16
PROJECT MANAGER: JHY	SHEET NUMBER: 16 OF 18

60 30 0 60 120
GRAPHIC SCALE IN FEET

TANK ID	CAPACITY (gals)	CONTENTS	DISCHARGE DIRECTION
MELT-1 THROUGH MELT-8	12,000 (EACH)	ULTRA-LOW SULFUR DIESEL	VARIES. TANKS CAN BE TOWED TO ANY LOCATION THROUGHOUT THE BWI CAMPUS AS NEEDED. DURING THE OFF-SEASON, THANKS ARE STORED IN LONG TERM B PARKING LOT WHERE OVERLAND FLOW IS OT NEARBY SEM FACILTIES WHICH CONTRIBUTE TO MUDDY BRIDGE BRANCH IN THE SAWMILL CREEK WATERSHED

FILE PATH: (LOVETON) Q:\PROJECTS\1536001\DWG\PRODUCTION\FIGURES.DWG [SHEET 17] JPERRY 8/18/22

BWI
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Thurgood Marshall
AIRPORT

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LEGEND

- WETLAND
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- GLYCOL PIPELINE
- KITTEN BRANCH — DRAINAGE AREA
- DRAINAGE DIVIDE
- AIRCRAFT DEICING AREA
- STONY RUN — WATERSHED AREA
- WATERSHED DIVIDE
- FENCELINE
- EXISTING CONTOUR
- #270 — BUILDING #/AREA #
- DISCHARGE FLOW PATHWAYS
- P31 — POND #
- SF5 — STORM FILTER #
- US2 — UNDEREROUND STORAGE #
- UNDERGROUND STORMWATER FACILITY
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ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
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- OIL-FILLED OPERATIONAL EQUIPMENT
- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

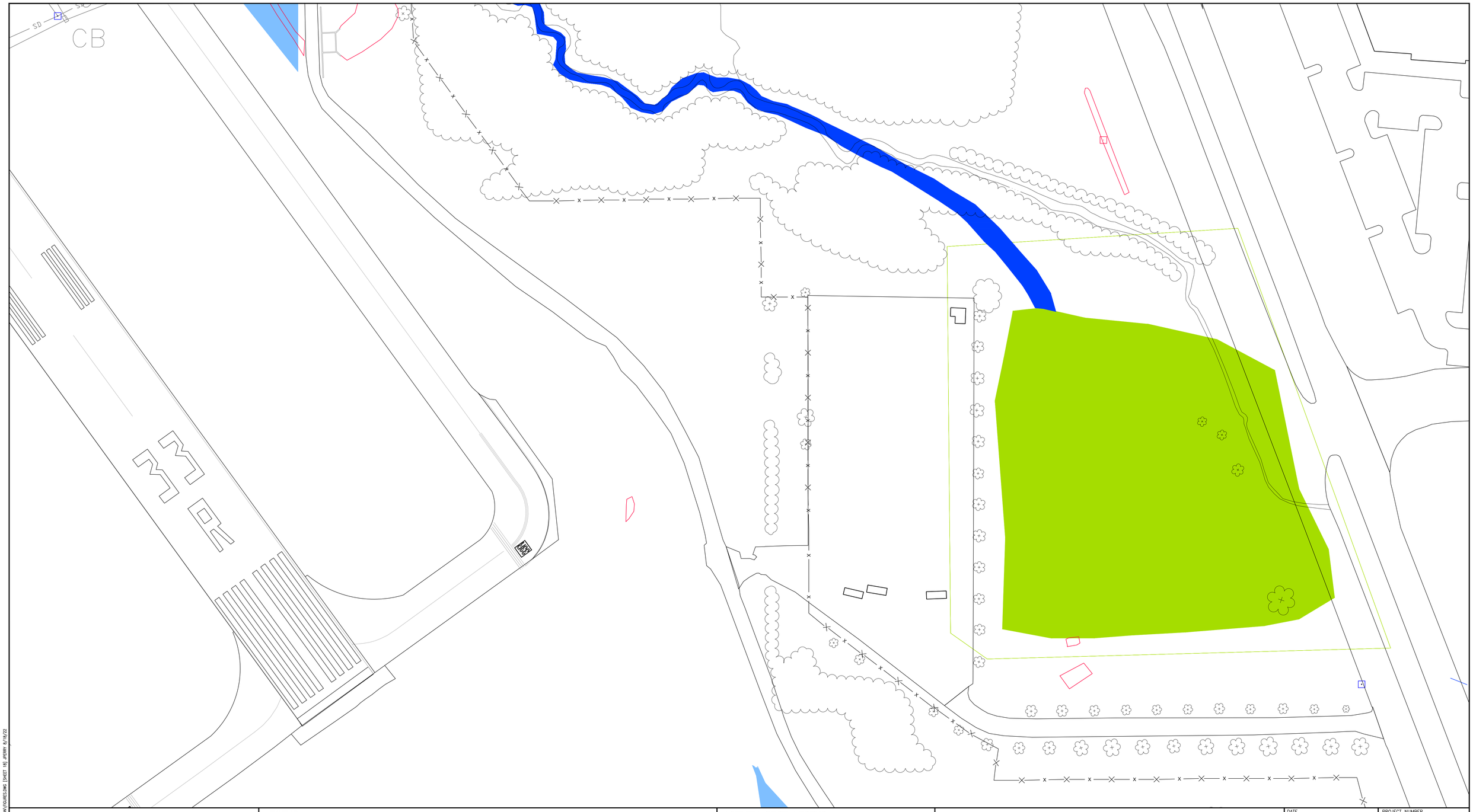
BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

MELT-1 THROUGH MELT-8 (STORAGE AREA)

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE	AUGUST 2022	PROJECT NUMBER	1536001.0002
DESIGNED BY	MP	SCALE	AS SHOWN
DRAWN BY	JAP	FILE NAME	FIGURES
CHECKED BY	JHY	DRAWING NUMBER	17
PROJECT MANAGER	JHY	SHEET NUMBER	17 OF 18

50 25 0 50 100
GRAPHIC SCALE IN FEET



BALTIMORE/WASHINGTON INTERNATIONAL Thurgood Marshall AIRPORT

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Hunt Valley, Maryland 21031
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LEGEND

- WETLAND
- SWM STRUCTURE
- FIELD SURVEYED STREAM
- STREAM
- BUILDING
- ROADWAY/RUNWAY
- RAIL LINE
- TRENCH DRAIN
- INFILTRATION TRENCH
- GLYCOL PIPELINE
- KITTEN BRANCH DRAINAGE AREA
- DRAINAGE DIVIDE
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- GRASS, RIP RAP, AND CONCRETE SWALES
- STORM FILTER
- OUTLET
- DRAINAGE AREA OUTLET

ACTIVITY SPOT LEGEND

- ABOVEGROUND STORAGE TANK (AST)
- UNDERGROUND STORAGE TANK (UST)
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- UNLOADING/LOADING AREA
- TANK TRUCK/MOBILE STORAGE PARKING AREA

N

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT

STORAGE TANK LOCATIONS

BASE MAP SOURCE: MARYLAND AVIATION ADMINISTRATION, BWI AIRPORT, AIRPORT LAYOUT PLAN, MARCH 2003.
STRAUGHAN ENVIRONMENTAL SERVICES, INC.
MICHAEL BAKER JR., INC.
MARYLAND ENVIRONMENTAL SERVICE, INC.

DATE: AUGUST 2022	PROJECT NUMBER: 1536001.0002
DESIGNED BY: MP	SCALE: AS SHOWN
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CHECKED BY: JHY	DRAWING NUMBER: 18
PROJECT MANAGER: JHY	SHEET NUMBER: 18 OF 18

60 30 0 60 120
GRAPHIC SCALE IN FEET

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APPENDIX O

BALTIMORE/WASHINGTON INTERNATIONAL

THURGOOD MARSHALL AIRPORT FUEL TRANSFER

OPERATIONS FOR MAINTENANCE

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MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

BWI Fuel Transfer Operations for Maintenance

1.0 PURPOSE

To ensure that all Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) maintenance personnel are aware of the proper procedures for fuel transfer operations at their facility in a manner consistent with all environmental regulations, industry best practices, and internal policies and procedures.

2.0 SCOPE

This procedure details the requirements for the proper management of fuel transfer operations at Baltimore Washington International Thurgood Marshall (BWI Marshall) Airport and ensures compliance with federal, state and local regulations, as well as Maryland Department of Environment (MDE) permit requirements and internal MDOT MAA policies and procedures.

3.0 RESPONSIBILITY

It is the responsibility of the Maintenance Supervisor or their designee to ensure that the procedures outlined in this work instruction are followed when performing fuel transfer operations.

4.0 PROCEDURE

These procedures will be utilized when transferring fuel to aboveground and underground storage tanks (ASTs/USTs), and portable units at MDOT MAA facilities. These procedures are also applicable when filling the BWI Marshall mobile refueler (tank truck #533) from either the tank #116-FM-4A loading rack or direct tanker to truck filling by the statewide fueling contractor. The goal of this procedure is to establish steps and processes to minimize releases of petroleum products to the environment during fuel transfer.

4.1. Fuel Transfer Operations

4.1.1. Loading of Portable Containers

BWI operates one mobile refueler (tank truck #533) which is used to provide fuel to emergency generators various ASTs, USTs, and equipment. The BWI tank truck #533 is currently filled by a statewide fueling contractor. Contractors are responsible for following proper fuel transfer procedures at BWI Marshall during tanker to tanker fuel transfer.

1. Tank truck filling must occur in designated areas, which are properly equipped with drainage controls:
    A. In the lot between Buildings 115 and 158 where the tank truck is normally parked.
    B. In front of Building 116, adjacent to the fuel pumps.
2. The Maintenance Supervisor or their designee must be present at all times during the loading of the mobile refueler.

4.1.2. Unloading of Portable Containers

The following procedure must be followed during fuel transfers from the tank truck to the receiving tank:

Prior to Fuel Transfer

1. Before leaving the loading rack and/or designated area, the tank truck must be inspected to ensure the following are present and functioning properly:

   A. Tank Truck #533 emergency shut off;
   B. Fire extinguisher;
   C. Spill kit and absorbent material; and
   D. MDE emergency spill reporting phone number is visible.
2. Prior to filling, inspect the tank truck for evidence of dents, cuts, gouges, corroded/abraded areas, leakage, or any other conditions that might render it unsafe for hazardous material service.
3. Upon arrival at the designated tank, the tank truck driver must chock the wheels and ensure that the truck is properly grounded and the surrounding area marked off with orange traffic cones or other temporary traffic control devices.
4. Drain blocking devices, as necessary, must be placed prior to fuel transfer.
5. For USTs, all catchment basins will be visually inspected for liquid or debris.
   A. Any liquid or debris noted within the catchment basin will be reported to the Office of Environmental Services (OES) so that it can be properly removed.
6. The fuel level of the tank truck and the fuel level of the receiving tank must be measured and recorded on the Fuel Transfer Record and Checklist – Tank Truck and Loading Rack (Attachment A) and the Fuel Delivery Record and Checklist (Attachment B).
   A. For USTs, an appropriate gauging stick marked in 1/8 inch increments must be used. The recorded measurements will be converted from inches to gallons using an appropriate tank calibration.
   B. For all applicable systems connected to a Pneumercator a printout of the fuel inventory should be obtained and compared to the stick measurements.
   C. For tanks and equipment not requiring manual gauging the appropriate data will be recorded on the Fuel Delivery Record and Checklist including the fuel level before and after the transfer operation.
   D. No tank is to be filled to more than 95% capacity.
7. All hose connections must be checked for tightness.
   A. If necessary, a collection bucket may need to be placed to capture any potential drips from the unloading valve.

During Fuel Transfer

1. The operator must remain within the immediate area (approximately 10 feet) of and in full and immediate control of the nozzles, shut-off valves, pumps, and emergency operating mechanism for the discharge control valve at all times when transferring fuel.
   A. The operator shall stand in a position so as to have the loading or delivery receptacle in full view.
2. The tank fuel gauge must also be monitored during the fuel transfer.
   A. If it is not possible for the tank truck operator to monitor the tank fuel gauge while remaining in the immediate area of the tank truck control valves, a second operator will be present and will monitor the tank fuel gauge.
3. If a spill or release occurs during fuel transfer operations, the operator must immediately stop the fuel flow and implement the spill response procedures outlined in the BWI Marshall Spill Response for Maintenance Personnel work instruction.

After Fuel Transfer

1. The operator will close all valves prior to disconnecting the hoses.

2. Before being disconnected from the tank truck, hoses are to be drained in such a way that all fuel in the lines is either gravity drained or pumped into the receiving tank.
3. All hoses will be capped prior to placing them on the tank truck and the area will be inspected for any leaks or drips.
    A. If any leaks or drips are observed absorbent materials will immediately be placed on the affected area.
    B. The operator is responsible for clean-up activities, including removal of the absorbent materials from the affected area.
    C. All spills must be reported to BWI Operations who will determine if additional response is required and contact the OES.
4. The fuel level of the tank truck and the fuel level of the receiving tank must again be measured using an appropriate gauging stick and the measurement recorded on the Fuel Transfer Record and Checklist – Tank Truck and Loading Rack (Attachment A) and the Fuel Delivery Record and Checklist (Attachment B). The recorded measurements will be converted from inches to gallons using an appropriate tank calibration chart and the total amount of fuel transferred will then be calculated.
5. Before leaving the area, the operator will inspect, properly place and secure all caps and tank fill covers.
6. All temporary traffic barriers and the ground for the tank truck shall be removed and the wheels unchocked before leaving the area.

4.2. Training

All fuel delivery drivers must receive the following training:

1. Training relative to this work instruction.
    A. As necessary or as directed by the OES.

5.0 RECORDKEEPING

All checklists are to be maintained in a binder in the Facility Maintenance Supervisor's Building (#120). Training records are maintained human resources and within the Learning Management System.

6.0 CONTACTS

Mark Williams, Environmental Compliance Section Manager – 410-859-7448
Darline Terrell-Tyson, Deputy Director, Office of Environmental Services – 410-859-7370

7.0 REFERENCES

- Maryland Department of the Environment Oil Operations Permit #2013-OPT-5477
- BWI Thurgood Marshall Airport Spill Prevention Control and Countermeasures Plan (SPCC)
- COMAR 26.10.01: Oil Pollution and Tank Management
- JETS

Appendix A
Fuel Transfer Record and Checklist – Tank Truck and Loading Rack

BWI MARSHALL
FUEL TRANSFER RECORD AND CHECKLIST – TANK TRUCK AND LOADING RACK

Date (MM/DD/YY) _____

****

ASSET (select one)

Tank Truck No. 533

Fuel Level Before Filling: _____ inches
Fuel Level After Filling: _____ inches

Fuel Level Before Filling: _____ gallons
Fuel Level After Filling: _____ gallons
Total Fuel Loaded: _____ gallons

Tank 116-FM-4A

Fuel Level Before Dispensing: _____ inches
Fuel Level After Dispensing: _____ inches

Fuel Level Before Dispensing: _____ gallons
Fuel Level After Dispensing: _____ gallons

Total Fuel Loaded (based on stick readings): _____ gallons
Total Fuel Loaded (based on totalizer): _____ gallons
Difference: _____ gallons

****

FUEL UNLOADING CHECKLIST

- **Inspect delivery tank for evidence of dents, cuts, gouges, corroded/abraded areas, leakage** ☐
- **Fuel driver chocked wheels and grounded truck** ☐
- **Drain-blocking devices available (Deploy drain cover before fueling for tank E-1A)** ☐
- **Absorbent pads/buckets available** ☐
- **Fuel level recorded prior to filling (in above section)** ☐
- **Hose connections to tank and truck checked prior to filling** ☐
- **Driver located near shut-off valve during transfer** ☐
- **Tank fuel gauge monitored during transfer** ☐
- **Hoses drained before securing to vehicle** ☐
- **Tank fill covers and caps secured after refueling** ☐

Emergency Information: If leaks are observed, stop fuel transfer ***immediately*** and shut off all valves. Notify the Airport Operations Center at (410) 859-7018 or (410) 859-7019 and initiate spill response procedures identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan. Inform Supervisor and MDOT MAA Environmental Compliance Section of any required maintenance to the tank, piping, or fittings that could result in a future leak or spill.

****

Fuel Delivery Driver

Name _____ **Signature** _____

Appendix B
Fuel Delivery Record and Checklist

BWI MARSHALL
FUEL DELIVERY RECORD AND CHECKLIST

Date (MM/DD/YY) _____

****

ASSET (select one)

_____ **Tank (AST/UST)**

Tank ID: _____

Fuel Level Before Filling: _____ inches _____ gallons

Fuel Level After Filling: _____ inches _____ gallons

Total Fuel Loaded: _____ gallons

_____ **Equipment**

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

Vehicle: _____ Port No.: _____ Fuel Added: _____ gallons

****

FUEL UNLOADING CHECKLIST

- **Inspect delivery tank for evidence of dents, cuts, gouges, corroded/abraded areas, leakage** ☐
- **Fuel driver chocked wheels and grounded truck** ☐
- **Drain-blocking devices available (Deploy drain cover before fueling for tank E-1A)** ☐
- **Absorbent pads/buckets available** ☐
- **Fuel level recorded prior to filling (in above section)** ☐
- **Hose connections to tank and truck checked prior to filling** ☐
- **Driver located near shut-off valve during transfer** ☐
- **Tank fuel gauge monitored during transfer** ☐
- **Hoses drained before securing to vehicle** ☐
- **Tank fill covers and caps secured after refueling** ☐

Emergency Information: If leaks are observed, stop fuel transfer ***immediately*** and shut off all valves. Notify the Airport Operations Center at (410) 859-7018 or (410) 859-7019 and initiate spill response procedures identified in the Spill Prevention, Control, and Countermeasure (SPCC) Plan. Inform Supervisor and MDOT MAA Environmental Compliance Section of any required maintenance to the tank, piping, or fittings that could result in a future leak or spill.

****

Fuel Delivery Driver

Name _____ **Signature** _____

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APPENDIX P

HAZARDOUS WASTE MANAGEMENT WORK INSTRUCTIONS

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MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

Hazardous Waste Management – EC Level

1.0 PURPOSE

To ensure that all Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) Office of Environmental Services (OES) personnel who have responsibilities relating to the management of hazardous wastes are aware of the proper procedures for the generation, storage, handling and disposal of hazardous wastes, in a manner consistent with all environmental regulations, industry best practices, and internal policies and procedures.

2.0 SCOPE

This procedure details the requirements for the proper management of hazardous wastes in any quantity at MDOT MAA facilities, including Baltimore Washington International Thurgood Marshall Airport (BWI Marshall) and Martin State Airport (MTN). The procedures outlined will help ensure and support compliance with federal, state and local regulations, as well as internal MDOT MAA policies and procedures.

3.0 RESPONSIBILITY

The Environmental Program Manager or their designee is responsible for ensuring that the procedures outlined in this work instruction are performed when managing hazardous waste.

It is the responsibility of each Office of Environmental Services (OES) employee who works with or otherwise handles hazardous wastes to do so safely and properly, and in accordance with all environmental regulations.

4.0 DEFINITIONS

Accumulation Area: A designated storage area at a facility in which hazardous waste are allowed to be stored for up to ninety (90) days, before required to be transported offsite for disposal. This is commonly referred to as the hazardous waste storage building at BWI Marshall and MTN.

Acute Hazardous Waste: Any of a group of hazardous materials as specified in COMAR 26.13.02.05C(1-2) and C(6), which share the properties of a hazardous waste (ignitability, corrosivity, reactivity or toxicity), and present a substantial hazard whether managed properly or not.

Hazardous Waste: Any waste that poses a present or potential threat to human health, living organisms, or the environment. There are two types of hazardous wastes: listed wastes and characteristic wastes. “Listed” wastes are perceived to be hazardous based on their origin, while “characteristic” wastes are known to be hazardous based on their properties (ignitable, corrosive, reactive, or toxic).

Satellite Accumulation Area (SAA): A temporary storage location at or near the point of waste generation, and under the control of the operator. A maximum of fifty five (55) gallons of hazardous waste and 1 quart of acute hazardous waste can be stored at any one time at an SAA.

5.0 PROCEDURE

5.1 Generator Status

In Maryland, Generators are divided into two categories as noted below:

1. Large Quantity Generator (LQG) of Hazardous Waste (ie. Fully Regulated Generator in Maryland)
    A. In Maryland, a facility is considered a LGQ if, during the reporting year, it meets any of the following criteria:
        i. The site generated or stored in one or more months one hundred (100) kilograms(kg) [two hundred twenty (220) pounds (lbs)or about half of one fifty five (55) gallon drum] or more of RCRA hazardous waste or
        ii. The site generated in one or more months, or accumulated at any time, greater than 1 kg (2.2 lbs) of RCRA acute hazardous waste
    B. If a facility meets the requirements of a LQG in any given month, the facility must maintain that classification for the remainder of that entire year.

2. Small Quantity Generator (SQG) of Hazardous Waste
    A. In Maryland, a facility is considered a SQG if it meets all of the following criteria:
        i. In no month did the site generate or store more than one hundred (100) kg hazardous waste; and
        ii. The site accumulated or stored no more than 1 kg (2.2 lbs) of acute hazardous waste.

BWI and MTN are classified as Large Quantity Generators (LQGs), and have obtained Environmental Protection Agency (EPA) Identification Numbers.

1. BWI EPA ID number is MDD041354002.
2. MTN EPA ID number is MDD980918973.

5.2 Storage

MDOT MAA facilities have two types of storage areas for accumulating hazardous wastes:

1. Satellite Accumulation Area (SAA)
2. Ninety (90)Day Storage Area (Accumulation Area)

5.2.1 SAA Storage

MDOT MAA's OESOES supplies the materials and provides guidance to maintenance and shop personnel for hazardous waste stored in SAA.

NOTE: See Work Instruction *"Hazardous Waste Management for Maintenance*" for a complete discussion of procedures and requirements for storing hazardous waste in a SAA.

5.2.2 90 Day Storage (Accumulation Area)

Maintenance personnel are responsible for moving the containers from the SAA to the Accumulation Area. Follow the steps listed below when moving hazardous waste containers to the 90-day storage building:

1. Ensure the container lid(s) is secure (e.g., the bolt on the ring must be facing down and secured).
2. Use a secure device to transport the waste (e.g., a dolly).

3. Once placed in the hazardous waste 90-day storage building, all containers shall be clearly labeled 'HAZARDOUS WASTE' and include the date the drum was moved into the building (accumulation start date).

5.2.3 Storage Requirements

These general storage guidelines must be followed when storing waste in the SAA and/or ninety (90) day storage building:

1. Waste containers must be stored indoors and/or covered at all times.
2. All waste storage containers must remain closed at all times, except when adding or transferring waste.
   A. If a container begins to leak, immediately place the leaking drum into a drum over pack (located at the 90-day storage area) or transfer the contents to a new container.
3. Incompatible wastes must be stored separately by means of an adequate distance to avoid reaction.

5.3 Disposal Procedures & Documentation

BWI and MTN airports do not conduct transportation or disposal activities of hazardous waste. MDOT MAA's OES currently has a contract with an approved licensed waste disposal contractor. As part of this agreement, the contractor will package, label, transport and dispose of or coordinate the disposal of hazardous waste generated at MDOT MAA facilities Hazardous wastes must be transported offsite within ninety (90) days of being moved to the ninety (90) day storage building and the accumulation start date.

5.3.1 Arranging for Disposal and Pickup

1. When hazardous waste is to be removed from an MDOT MAA facility, OES contacts MDOT MAA's Disposal Contractor to coordinate a pickup and disposal.
2. In preparation of disposal and transportation, the disposal contractor completes a label with the following information on each container before it is transported:
   A. A 'HAZARDOUS WASTE' label
   B. Generator's name and address
   C. Generator's EPA ID Number
   D. Appropriate Manifest Tracking Number
3. Prior to disposal, OES ensures all waste is profiled using laboratory analysis or generator knowledge.
4. . A trained and certified OES staff member manages and ensures that the waste is properly labeled, packages, manifested and ready for transport.
5.
6. A trained and certified MDOT MAA staff member will sign all hazardous waste manifests prior to transport and ensure manifest is properly completed.
   A. Under the contractual agreement referenced above, the contractor is responsible for supplying placards when disposing of MDOT MAA wastes.

5.3.2 Manifest Completion

1. For any hazardous waste removed from the facility, a completed hazardous waste manifest is required.

A. Use the EPA Form 8700-22 or 8700-22A (if more than one transporter is used).
B. The generator name and site address shall be the address of the MDOT MAA facility that generated the hazardous waste.

2. Trained and certified staff ensure that all applicable sections of the manifest are completed and signed.
3. One copy of the manifest and Land Disposal Restriction (LDR) should be retained. All other manifest copies and the LDR form should be given to the transporter.
4. The OES shall receive a return manifest within 45 days from the disposal facility. Once a copy of the return manifest has been obtained this should be posted to Joint Environmental Tracking System (JETS).
5. Any LDR, waste analyses, or other related documentation should be posted to JETS.

5.3.3 Exception Reporting

1. If MDOT MAA does not receive a copy of the completed manifest within 35 days:
   A. Contact the transporter and/or treatment, storage, or disposal facility (TSDF) to determine the status.
2. If MDOT MAA does not receive a copy of the completed manifest within 45 days:
   A. Submit an Exception Report to MDE; report must include a copy of the manifest and a cover letter to the appropriate state agency describing the situation.

5.4 Inspections

Storage areas must be inspected weekly to identify any non-compliance that may cause or lead to a release of hazardous waste or that may pose a threat to human health or the environment. BWI Marshall has two ninety (90) day storage locations that require inspection: one located behind the Heavy Equipment Shop in the Field Maintenance area and the other in the MAC building parking lot. MTN State has one storage location that requires inspection: located behind Vehicle Maintenance Shop.

1. Weekly inspections are performed by the OES or a designated environmental consultant using paper inspection sheets or the electronic inspection tool.
2. Weekly inspections identify wastes approaching the 90-day threshold, and other potential non-compliance issues.
3. All non-compliance that are observed during a weekly inspection are reported and the corrections tracked by OES.
4. Inspection logs should be uploaded into JETS following the inspection.

5.5 Training

1. MDOT MAA's OES coordinates an annual "Environmental Awareness Training" for all employees whose job functions include the handling of hazardous wastes shall be trained in general hazardous waste management, including but not limited to:
   A. Hazard identification
   B. Release prevention
   C. Safe operating and material handling procedure
   D. Safe work practices
   E. Personal protective equipment
   F. Basic emergency procedures
   G. Integrated Contingency Plan

H. Other activities as required by specific job duties.

2. Refresher training is conducted annually.
3. New employees must complete training within six months of hire or must be supervised be a trained employee while performing waste handling activities.
4. Training records are kept on file (in MDOT MAA's Learning Management System and uploaded to JETS) for a minimum of three years.
5. Individuals who sign manifests must receive additional training under 49 CFR 172 Subpart H.

6.0 RECORDKEEPING

Federal and state regulations require MDOT MAA to document various hazardous waste activities and conditions at MDOT MAA sites. It is advisable to retain all documents and records for a minimum of three years to ensure compliance with these regulations

1. The following files related to MDOT MAA hazardous waste activities are maintained in hard copy by the OES and uploaded to JETS:
   A. Hazardous Waste Manifests
   B. Waste Characterization/Waste Profiles
   C. Land Disposal Restrictions
   D. Exception Reports
   E. Biennial Generator Reports
2. Training records are uploaded to JETS and tracked through LMS.

7.0 VERIFICATION AND CORRECTIVE ACTION

This Work Instruction will be reviewed by the Environmental Program Manager or their designee on a periodic basis, but no less frequently than every three years.

8.0 CONTACTS

Mark Williams, Environmental Compliance Section Manager – 410-859-7448
Darline Terrell-Tyson, Deputy Director, Office of Environmental Services – 410-859-7370

9.0 REFERENCES

- JETS
- COMAR 26.13.01: Hazardous Waste Management System: General
- COMAR 26.13.02: Identification and Listing of Hazardous Waste
- COMAR 26.13.03: Standards Applicable to Generators of Hazardous Waste
- COMAR 26.13.05: Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- COMAR 26.13.10: Standards for the Management of Specific Hazardous Wastes
- 42 USC 6921 – 6939: Hazardous Waste Management
- 29 CFR 1910.106: Flammable and Combustible Liquids
- 29 CFR 1910.253: Oxygen-Fuel Gas Welding and Cutting
- 29 CFR 1910.1200: Hazard Communication
- 40 CFR 261: Identification and Listing of Hazardous Waste
- 40 CFR 262: Standards Applicable to Generators of Hazardous Waste

- 40 CFR 265: Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- 40 CFR 268: Land Disposal Restrictions
- 49 CFR 172: Hazardous Materials Tables, Hazardous Materials Communications Requirements and Emergency Response Information Requirements

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

Hazardous Waste Management – Maintenance Level

1.0 PURPOSE

To ensure that all Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) maintenance personnel are aware of the proper procedures for the generation, storage, handling and disposal of hazardous wastes, in a manner consistent with all environmental regulations, industry best practices, and internal policies and procedures.

2.0 SCOPE

This procedure details the requirements for the proper management of hazardous wastes at MDOT MAA facilities, including Baltimore Washington International Thurgood Marshall Airport (BWI Marshall) and Martin State Airport (MTN). BWI Marshall and MTN are currently classified as Large Quantity Generators (LQGs), and have obtained Environmental Protection Agency (EPA) Identification Numbers. The procedures outlined were developed with consideration for both BWI and MTN large quantity generator status and to ensure compliance with federal, state and local regulations, as well as internal MDOT MAA policies and procedures.

3.0 RESPONSIBILITY

It is the responsibility of the Maintenance Supervisor or their designee to ensure that the procedures outlined in this work instruction are performed when managing hazardous waste.

4.0 PROCEDURE

MDOT MAA facilities have two types of storage areas for accumulating hazardous wastes, the Satellite Accumulation Area (SAA) and the Ninety (90) Day Storage Area (Accumulation Area). Follow the steps outlined below for storage:

3.1 General Requirements

All hazardous waste generated by MDOT MAA is characterized using generator knowledge or via laboratory analysis. See Work Instruction *"Waste Characterization"* for a complete discussion of MDOT MAA's waste characterizations procedures.

3.2 Storage General

Waste can only be accumulated in approved containers that are free of holes, large dents and that are not rusted (inside or out). The drum lid must be in good condition and fit tightly on drum.

Note: Containers to be used are located at the 90-day storage area. Contact the Office of Environmental Services (OES) with all questions or specific guidance related to drum selection.

Follow the steps below when accumulating hazardous waste:

1. Store waste containers indoors or covered at all times.
2. Keep containers closed at all times, except when adding or transferring waste.
3. If a container begins to leak, immediately place the leaking drum into a drum over pack (located at the 90-day storage area) or transfer the contents to a new container.
4. Incompatible wastes must be stored separately.

A. Contact the OES for questions regarding potential waste compatibility and for specific guidance.

5. Do not combine wastes.

3.3 Satellite Accumulation Area Storage

1. As described above, select an approved container that is compatible with the waste and in good condition.
2. Label the container with labels supplied by the OES that contain the following information: "HAZARDOUS WASTE "or with other words that identify the name/type of waste (i.e., waste oil, waste paint, etc.), as well as the hazardous property of the waste (e.g., flammable, corrosive, etc).
3. No container must be filled more than 90% of its capacity. Once a volume of fifty five (55) gallons of hazardous waste or one quart of acute hazardous waste is reached, the container must be moved to the Ninety (90) Day Storage Area immediately.

Note: Maintenance personnel are responsible for moving containers from SAA to Accumulation Area.

3.4 Transporting to Ninety (90)Day Storage Building

1. Ensure the container lid(s) is secure (e.g., the bolt on the ring must be facing down and secured).
2. Use a secure device to transport the waste (e.g., a dolly).
3. Once placed in the hazardous waste storage building, all containers shall be clearly labeled 'HAZARDOUS WASTE', and include the date the drum was moved into the building (accumulation start date).
    A. At BWI Marshall there are 2 Ninety (90) Day Storage Buildings, one located at Field Maintenance behind the Heavy Equipment Shop and the second is located in the parking lot of the MAC Building.
    B. At MTN, the Ninety (90) Day Storage Building is located behind the Maintenance Shop.

5.0 CONTACTS

Mark Williams, Environmental Compliance Section Manager – 410-859-7448
Darline Terrell-Tyson, Deputy Director, OES – 410-859-7370

REFERENCES

- COMAR 26.13.01: Hazardous Waste Management System: General
- COMAR 26.13.02: Identification and Listing of Hazardous Waste
- COMAR 26.13.03: Standards Applicable to Generators of Hazardous Waste
- COMAR 26.13.10: Standards for the Management of Specific Hazardous Wastes
- 42 USC 6921 – 6939: Hazardous Waste Management
- 40 CFR 262: Standards Applicable to Generators of Hazardous Waste
- Best Management Practice: Hazardous Materials and Waste
- 40 CFR 265: Container Management Standards for Generators

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APPENDIX Q

BALTIMORE/WASHINGTON INTERNATIONAL

THURGOOD MARSHALL AIRPORT TENANT

DIRECTIVE 502.1

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TENANT DIRECTIVE

BWI: 502.1
DATE: July 6, 2007 (Revised)
DISTRIBUTION: A

TITLE: HAZARDOUS FUEL/OIL, MATERIAL & SEWAGE SPILLS

I. REFERENCES:

A. Federal Aviation Regulations Part 139.321

B. Airport Emergency Plan (AEP) Part-3 Section-6

C. Code of Federal Regulations 40 CFR 355.40

D. Code of Federal Regulations 29 CFR 1910.120

E. Code of Maryland Regulations 26.10.01.03

F. This Directive supersedes BWI Tenant Directive 502.1 dated October 17, 1996

G. MAA Storm Water Pollution Prevention Plan (SWPP) and MAA Integrated Contingency Plan (ICP), Tenant Spill Prevention, Control and Counter Measure (SPCC) Plans or Facility Response Plans (FRP)

II. DIRECTIVE STATEMENT:

A. This Directive is applicable to all tenants and users at Baltimore/Washington International Thurgood Marshall Airport (BWI).

B. This Directive establishes general procedures for the following:

1. Hazardous Substance and Material Spills Initial Reporting Responsibilities
2. Tenant & User Responsibilities
3. Maryland Aviation Administration (MAA) Responsibilities
4. Aviation Fuel Spill Procedures within the Air Operations Area
5. Sewage Spill Procedures within the Air Operations Area
6. General Procedures for Other Hazardous Releases and Spills
7. Fuel/Oil Spill Reporting Responsibilities
8. Tenant/Agency Charges

C. The BWI Fire & Rescue Department will provide emergency response to all hazardous material releases/spills.

D. The MAA will provide support services on a charge-back basis as indicated in the Procedures Section.

E. Airport tenants and users are responsible for all containment, decontamination, disposal, and reporting activities for hazardous substance and material spills/situations they create.

F. Airport tenants and users are responsible for the activities and actions of their employees and contractors.

G. Airport tenants are responsible for initiating evacuation procedures in accordance with MAA Directive 105.0.1 (attached).

III. HAZARDOUS SUBSTANCES AND MATERIALS SPILLS REPORTING RESPONSIBILITIES:

All releases of hazardous substances and materials shall be reported immediately to the Airport's Consolidated Dispatch Center (CDC) at **410-859-7222** so the appropriate equipment and personnel can be dispatched to investigate and take mitigating action.

IV. TENANT & USER RESPONSIBILITIES:

A. All tenants and users whose activities involve fuel/oil and/or hazardous materials shall:

1. Furnish the Airport Operations Center with a list of names of responsible persons and their business and non-work telephone numbers to contact for a fuel spill or hazardous material situation.

2. If properly trained and equipped in accordance with 29 CFR 1910.120 and the situation does not present an immediate threat to life and the environment, contain, collect, and dispose of the spilled material or obtain a commercial organization capable of providing effective mediation.

3. If not properly trained and equipped or the situation is beyond the tenant's capabilities, obtain a commercial organization licensed in the State of Maryland to perform the containment, remediation/decontamination following the direction from the appropriate MAA section (BWI Fire & Rescue Department, Airport Operations, Airport Maintenance, or Environmental Compliance).

4. All materials used to clean-up, and contain the spill shall be placed in approved containers, identified, and then disposed of properly by a licensed commercial organization as identified in the paragraph above.

V. MARYLAND AVIATION ADMINISTRATION RESPONSIBILITIES:

A. Upon receipt of a Hazmat spill, notify the CDC. The CDC will dispatch the appropriate MAA personnel and equipment to the scene of a hazardous substance and material spill.

B. Fire/Rescue

Determine if an immediate threat to life, safety, or the environment exists and take appropriate mitigation actions which may include evacuating all personnel from the area, shutting down operations, identification of hazardous material, blanketing, diking, damming, diverting, plugging and patching, etc.

C. Maintenance

Provide heavy equipment, technical support, sand/dirt, barricades, etc. as requested from the appropriate MAA lead personnel.

D. Airport Operations

1. Coordinate the activities and requirements as directed by the appropriate MAA personnel and make notifications in accordance with the Airport Emergency Plan (AEP).

2. Determine that the area involved has been returned to satisfactory condition at the completion of cleanup activities.

3. Make notification to a commercial spill contractor for additional assistance if the tenant/agency responsible for the spill fails to call or does not call in a timely manner. The Airport Operations Manager will notify the tenant/agency manager of this action.

E. Airport Police

Assist in evacuation activities, provide escort service from outside assistance, monitor entry/exit area, and maintain a security perimeter.

VI. AVIATION FUEL SPILL PROCEDURES WITHIN THE AIR OPERATIONS AREA:

A. Immediately contact the Consolidated Dispatch Center at 410-859-7222, and advise size of spill, type of fuel involved, and cause of spill.

B. Stop the flow of fuel if possible and only if it can be done safely.

C. Place fire extinguishers upwind of the spill.

D. Clear the area of personnel.

E. If the spill is under the wing or fuselage of an occupied aircraft, evacuate the aircraft into the terminal through the loading walkway or bridge.

F. Notify appropriate company personnel.

G. Do not move the fuel truck.

H. Do not start or turn off any equipment, including ground power units. If a ground vehicle engine is running, leave it running. If an engine is shut off, do not start it. Ignition of the spill is more likely to occur from engines backfiring from start-up or shut-down procedures.

I. If you have the proper training, equipment, and absorbent material, you may start to clean up the spill before the Airport Fire & Rescue Department arrives. Do not under any circumstances place personnel in the spilled fuel. Always work from the outside perimeter in. If you have been trained in the proper use of a portable fire extinguisher, stand-by upwind in the event of ignition and evacuate all personnel and traffic from the area.

J. The Airport Fire & Rescue Department has the proper equipment and training to deal with the situation safely. Follow the instructions of the Fire & Rescue Department for fuel spill clean-up procedures after they arrive.

K. Prevent fuel from flowing into storm drain if possible.

VII. SEWAGE SPILL PROCEDURES WITHIN THE AIR OPERATIONS AREA:

A. All releases of hazardous substances and materials shall be reported immediately to the Airport Operations Center at 410-859-7018 so the appropriate equipment and personnel can be dispatched to investigate and take mitigating action, if required.

B. The tenant/agency responsible for the spill shall provide personnel and equipment for cleanup, or call in a licensed commercial organization to clean up the spill and dispose of spilled materials.

C. The area shall be decontaminated after all cleaning operations are complete. No sewage spills will be flushed so as to contaminate storm drains, surface waters, or streams.

VIII. HAZARDOUS SUBSTANCES AND MATERIAL SPILLS POST REPORTING RESPONSIBILITIES:

NOTE: This section is only applicable for fuel/oil spills. Sewage must also be reported if it enters a storm drain.

A. The Code of Maryland Regulations (COMAR 26.10.01.03) requires that spills must be reported verbally to the Maryland Department of the Environment (MDE) by the tenant or user responsible for the spill. To assure compliance with Maryland law, tenants and users must adhere to the following reporting requirements:

1. Notify MDE by phone within two hours of the spill. The MDE 24-hour phone number is 1-866-633-4686. Information to be provided shall consist of the time of discharge, location of discharge, type of facility or vehicle involved, and type and quantity of fuel/oil and/or hazardous material spilled.

2. Send a report of the spill to MDE at the address indicated at the top of the reporting form within 10 working days after removal and remediation work has been completed. The report can be found at: **http://www.mde.state.md.us/assets/document/emergency/mdespillreport.pdf**

3. Any fuel/hazardous materials/sanitary spill that enters a storm drain is considered to have entered waters of the state and must be reported within two hours even if a pollution control device is attached to the storm drain (i.e. oil/water separator).

IX. TENANT/AGENCY CHARGES:

A. The tenant/agency will be charged the MAA standard rates and fees plus a 50 percent administrative fee for all equipment and materials that MAA may provide to contain the spill.

B. Should the MAA request the use of a commercial organization and/or the MDE, because the tenant/agency has not promptly and appropriately controlled or rectified conditions constituting an emergency or a hazard, the tenant agency will be charged for the use of these outside services.

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AIRPORT OPERATIONS

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Stephen D. Sheehan, A.A.E.
Deputy Executive Director

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