SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN (SPCCP)
FORT GEORGE G. MEADE

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September 2012

THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED: for the latest version of this document, contact DPW-ED at 301-677-9648
MANAGEMENT APPROVAL

Full approval of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is extended by the management of the Fort George G. Meade, Maryland at the level of authority to commit the necessary resources toward spill prevention and control.

Name: Brian P. Foley
Title: Colonel, Signal Corps
Commanding

Signature: [Signature]
Date: 11/9/13

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that: (i) I am familiar with the requirements of Title 40, Code of Federal Regulations, Part 112 (40 CFR 112 et seq.); (ii) I have visited and examined the facility; (iii) this SPCC Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the 40 CFR 112 et seq.; (iv) procedures for required inspections and testing have been established; and (v) the SPCC Plan is adequate for the facility.

Signature: [Signature]
Name: David Di Cesare, PE
State, P.E. License No.: Commonwealth of Virginia, 0402 031809
Certification Date: 27 September 2012

Seal: [Seal]

Fort George G. Meade, Maryland
SPCC Plan

USAGE Baltimore District
September 2012
AMENDMENT, REVIEW, AND EVALUATION

In accordance with 40 CFR 112.5(a), this SPCC Plan must be amended when there is a change in the facility design, construction, operation, or maintenance which materially affects the facility’s potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Examples of changes that may require amendment of this SPCC Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at the facility. An amendment to this SPCC Plan must be prepared within 6 months of the change, and implemented as soon as possible, but not later than 6 months following preparation of the amendment. In accordance with 40 CFR 112.5(b), any technical amendments to this SPCC Plan must be certified by a Professional Engineer (PE).

In accordance with 40 CFR 112.5(b), this SPCC Plan must be reviewed and evaluated at least once every 5 years from the date of the last review, regardless of any changes at the facility. As a result of this review and evaluation, this SPCC Plan must be amended within 6 months to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge from the facility. An amendment to this SPCC Plan must be implemented as soon as possible, but not later than 6 months following preparation of the amendment. In accordance with 40 CFR 112.5(b), any technical amendments to this SPCC Plan must be certified by a PE. The completion of the review and evaluation must be documented and the statement provided below must be signed as to whether this SPCC Plan will be amended.

DOCUMENTATION OF COMPLETION OF REVIEW AND EVALUATION

I have completed a review and evaluation of the SPCC Plan for Fort George G. Meade, Maryland on _______________ and _____________ amend the Plan as a result.

(completion date)       (will or will not)

Name: ____________________________ Signature: ____________________________
Title: Commanding Officer Date: ____________________________

I have completed a review and evaluation of the SPCC Plan for the Fort George G. Meade, Maryland on _______________ and _____________ amend the Plan as a result.

(completion date)       (will or will not)

Name: ____________________________ Signature: ____________________________
Title: Commanding Officer Date: ____________________________
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LIST OF ACRONYMS AND ABBREVIATIONS

AAFES  Army & Air Force Exchange Service
API  American Petroleum Institute
AR  Army Regulation
AST  Aboveground Storage Tank
ATG  Automatic Tank Gauging
BG&E  Baltimore Gas & Electric
BMP  Best Management Practice
BOS  Base Operations Support
CFR  Code of Federal Regulations
CNT  Container
CP  Command Post
CWA  Clean Water Act
DISA  Defense Information Systems Agency
DLA  Defense Logistics Agency
DMA  Defense Media Activity
DOL  Directorate of Logistics
DOT  Department of Transportation
DPW  Directorate of Public Works
EOD  Explosive Ordinance Disposal
ED  Environmental Division
FGGM  Fort George G. Meade
ft  foot (feet)
g/h  gallons per hour
HAZMAT  Hazardous Material
IMCOM  Installation Management Command
IOSC  Initial On Scene Coordinator
IRT  Initial Response Team
MDE  Maryland Department of the Environment
MFT  Mobile Fuel Tanker
NERO  Northeast Regional Office
OPA  Oil Pollution Act
OSHA  Occupational Safety and Health Administration
OSRO  Oil Spill Response Organization
OWS  Oil Water Separator
NRC  National Response Center
PE  Professional Engineer
POL  Petroleum, Oils and Lubricants
PPE  Personal Protective Equipment
QI  Qualified Individual
RQ  Reportable Quantity
SOP  Standard Operating Procedures
SPCCP  Spill Prevention, Control, and Countermeasure Plan
UECO  Unit Environmental Compliance Officer
USACE  U.S. Army Corps of Engineers
USEPA  U.S. Environmental Protection Agency
UST  Underground Storage Tank
DEFINITIONS

Adverse weather means weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil, and that must be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment is intended to function.

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

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

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

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

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

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

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

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

Contract or other approved means means:

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

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

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or
(4) Any other specific arrangement approved by the Regional Administrator upon request of
the owner or operator.

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

Facility means any mobile or fixed, onshore or offshore building, structure, installation,
equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling
operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil
distribution, and waste treatment, or in which oil is used. The boundaries of a facility depend on
several site-specific factors, including, but not limited to, the ownership or operation of buildings,
structures, and equipment on the same site and the types of activity at the site.

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

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

Loading/unloading rack means a fixed structure (such as a platform, gangway) necessary for
loading or unloading a tank truck or tank car, which is located at a facility subject to the
requirements of this part. A loading/unloading rack includes a loading or unloading arm, and
may include any combination of the following: piping assemblages, valves, pumps, shut-off
devices, overfill sensors, or personnel safety devices.

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

Mobile refueler means a bulk storage container onboard a vehicle or towed, that is designed or
used solely to store and transport fuel for transfer into or from an aircraft, motor vehicle,
locomotive, vessel, ground service equipment, or other oil storage container.
Navigable waters means the waters of the United States, including the territorial seas.

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92–500), and tributaries of such waters; (2) Interstate waters; (3) Intrastate lakes, rivers, and streams which are utilized by interstate 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.

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

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

Offshore facility means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.

Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

Oil-filled operational equipment means equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (e.g., those for pumps, compressors and other rotating equipment, including pumpjack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device.

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

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

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

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

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

(2) All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

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

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

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

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

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

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

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

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

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

Vegetable oil means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels.

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

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

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions.
1.0 INTRODUCTION

This Spill Prevention, Control, and Countermeasure (SPCC) Plan was developed in accordance with Title 40, Code of Federal Regulations (CFR), Part 112 (40 CFR 112) and Army Regulation (AR) 200-1, Environmental Protection and Enhancement for Fort George G. Meade (FGGM) in Odenton, Maryland.

1.1 OBJECTIVE

The primary objective of this SPCC Plan is to prevent oil discharges at FGGM. Secondary objectives of this Plan include limiting the magnitude of any oil discharge that does occur and limiting any resulting damage to the surrounding environment following an oil discharge. These objectives are accomplished through the implementation of engineering controls, operational procedures, and administrative requirements, as outlined in this SPCC Plan. This SPCC Plan addresses the general SPCC Plan content requirements of Subpart A (40 CFR 112.7) and the specific SPCC Plan content requirements for onshore facilities (excluding production facilities) of Subpart B (40 CFR 112.8). Appendix B to this SPCC Plan contains a cross-reference of the contents of this SPCC Plan to the 40 CFR 112 requirements.

In accordance with 40 CFR 112.3(e), a copy of this SPCC Plan is required to be maintained onsite at the facility. A copy of this SPCC Plan is also required to be available for onsite review by the U.S. Environmental Protection Agency (USEPA) Regional Administrator or the Maryland Department of Environment (MDE) during normal working hours.

1.2 APPLICABILITY

SPCC Plans are required at non-transportation related onshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon navigable waters of the United States, their tributaries, or adjoining shorelines. This SPCC Plan is required at FGGM because the facility meets the definition above and has an aggregate aboveground oil storage capacity greater than 1,320 gallons. For the purpose of this threshold determination, only containers of oil with a capacity of 55 gallons or greater are counted toward the aggregate capacity and any containers that are “permanently closed” are excluded.

AR 200-1 expands the scope of this SPCC Plan to address hazardous substances, to include oil, as identified in 40 CFR 302.

1.3 AMENDMENT OF PLAN BY USEPA REGIONAL ADMINISTRATOR

The oil discharge thresholds referenced in the following text are applicable only in regard to the provision of information to the USEPA for evaluation of this SPCC Plan. These oil discharge thresholds do not directly correspond to emergency spill reporting requirements or spill response procedures.
Should FGGM discharge more than 1,000 gallons of oil in a single discharge, or discharge more than 42 gallons of oil in each of two discharges occurring within any 12-month period, FGGM must submit the following information to the USEPA Regional Administrator within 60 days:

- facility name and location;
- facility owner or operator names;
- facility maximum storage or handling capacity and normal daily oil throughput;
- an adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- the cause(s) of the discharges, including a failure analysis of the system or subsystem where the failure occurred;
- the corrective actions and/or countermeasures taken (e.g., equipment repairs or replacement);
- any other prevention measures taken or contemplated to minimize the possibility of recurrence; and
- other reasonable information as requested.

The USEPA Regional Administrator will review this information and may require the facility to amend this SPCC Plan if it does not meet the regulations or if an amendment is necessary to prevent and contain oil discharges from the FGGM.

1.4 CONFORMANCE TO 40 CFR 112 REQUIREMENTS

40 CFR 112.7(a)(1) requires that “a discussion of your facility’s conformance with the requirements listed in this part” be included in this SPCC Plan. FGGM fully conforms to the SPCC Plan requirements of 40 CFR 112 et seq. with the exception of the nonconformance(s) noted in Appendix C to this SPCC Plan. The specific 40 CFR 112 et seq. requirement, a discussion of the non-conformance, a schedule for timely resolution, and a signature line for noting the resolution date for the identified nonconformance(s) is provided.

It should be noted that FGGM must remain diligent with regard to maintaining this SPCC Plan current given the potential for changes to oil storage and use at a military installation. As noted on the Amendment, Review, and Evaluation page, this SPCC Plan must be amended when there is a change in the facility design, construction, operation, or maintenance which materially affects the facility’s potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. An amendment must be prepared within 6 months of the change, and implemented as soon as possible, but not later than 6 months following preparation of the amendment. In accordance with 40 CFR 112.5(b), any technical amendments to this SPCC Plan must be certified by a Professional Engineer (PE).
2.0 FACILITY DESCRIPTION

FGGM is a Federal Campus located in southeastern Maryland. The installation is located almost midway between the cities of Baltimore, MD to the north and Washington, DC to the south and is completely contained within the borders of Anne Arundel County, MD.

2.1 MISSION

FGGM is part of the U.S. Army Installation Management Command (IMCOM) under the command of the Northeast Regional Office (NERO). The primary mission of FGGM is to provide base operations support for facilities and infrastructure, quality of life and protective services in support of DoD activities and Federal agencies. In support of this mission, FGGM is home to numerous DoD activities and Federal Agency functions, to include the US Environmental Protection Agency (USEPA) and National Security Agency (NSA).

2.2 ENVIRONMENTAL SETTING

FGGM occupies approximately 5,415 acres and is bordered to the south by the Patuxent River National Wildlife Research Refuge.

The majority of FGGM is located within the Coastal Plain Province. The Coastal Plain is an eastward thickening edge of unconsolidated sediments that lie upon the crystalline and metamorphic rocks of the Piedmont. The sediments that underlie FGGM belong to the Potomac Formation, Cretaceous aged sediments comprised of gravels, sand, silt, and clay.

The installation topography ranges in elevation from 200 feet (ft), near the northwestern border, to 80 ft, along the Patuxent River National Wildlife Refuge. The surface topography is gently rolling and flattens out toward the Patuxent River National Wildlife Refuge.

The climate in the FGGM area is temperate, with hot humid summers and moderately cold winters. The average annual temperature is approximately 56°F with an average low temperature of 36°F in the winter months. The average annual rainfall is 39 inches per year.

An installation location map that illustrates the FGGM property boundaries and their proximity to surface water bodies is included in Appendix A to this SPCC Plan.

2.3 OIL STORAGE AND HANDLING

Oil is stored and handled at FGGM facilities in aboveground storage tanks (ASTs), underground storage tanks (USTs), mobile refuelers, and portable containers to support vehicle operations, emergency power generation, and heating operations. Small quantities of packaged petroleum products and hazardous substances (5-gallon capacity containers and less) are also stored and handled at FGGM facilities. Additionally, FGGM is host to a large number of Baltimore Gas & Electric (BG&E) oil-filled electrical transformers.

This SPCC Plan addresses oil storage and handling at host and select DoD and Federal Agency tenant activities at FGGM. These oil storage and handling locations are:

- Army and Air Force Exchange Service (AAFES) Shoppette (Building 4706)
- AAFES Garage (Building 4587)
- Directorate of Public Works (DPW) Recycling Center (Building 2250)
- DOL Fueling Station (Building 60B)
- Defense Information System Agency (DISA) (Building 6906)
• Defense Media Activity (Building 6702)
• BGE Rock Avenue Substation (Building 42XX)
• Emergency Generator Tanks (various buildings)
• Heating Oil Tanks (various buildings)

Aboveground storage tanks (ASTs) and underground storage tanks (USTs) that are associated with the above facilities are summarized in the following subsections. Appendix A contains detailed descriptions of the above facilities and facility diagrams.

2.3.1 Aboveground Storage Tanks

There are 24 ASTs on FGGM that total 109,675 gallons in oil storage capacity. Table 2-1 lists all petroleum ASTs on FGGM.

Table 2-1 FGGM Petroleum ASTs

<table>
<thead>
<tr>
<th>Tank ID</th>
<th>Installed</th>
<th>Volume</th>
<th>Tank Type</th>
<th>Contents</th>
<th>Tank Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0004 D</td>
<td>1999</td>
<td>500</td>
<td>R-S-DW</td>
<td>Fuel Oil #2</td>
<td>Heating</td>
</tr>
<tr>
<td>0072A-D</td>
<td>1996</td>
<td>800</td>
<td>R-S-DW</td>
<td>Empty</td>
<td>Out of Service</td>
</tr>
<tr>
<td>0077 B</td>
<td>1996</td>
<td>275</td>
<td>HC-S-SW</td>
<td>Fuel Oil #2</td>
<td>Emergency Fire Pump</td>
</tr>
<tr>
<td>1251 B</td>
<td>1996</td>
<td>800</td>
<td>R-S-DW</td>
<td>Used Oil</td>
<td>Oil Collection and Storage</td>
</tr>
<tr>
<td>2120C-A</td>
<td>1996</td>
<td>800</td>
<td>R-S-DW</td>
<td>Used Oil</td>
<td>Oil Collection and Storage</td>
</tr>
<tr>
<td>2246 E</td>
<td>1996</td>
<td>800</td>
<td>R-S-DW</td>
<td>Used Oil</td>
<td>Oil Collection and Storage</td>
</tr>
<tr>
<td>2250 B</td>
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<td>HC-S-DW</td>
<td>Used Oil</td>
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</tr>
<tr>
<td>2250 C</td>
<td>2001</td>
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<td>HC-S-DW</td>
<td>Used Oil</td>
<td>Oil Collection and Storage</td>
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<td>2786 B</td>
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<td>HC-S-DW</td>
<td>Diesel</td>
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<td>3900 F</td>
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<td>S-DW</td>
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<tr>
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<td>--</td>
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<td>Empty</td>
<td>Out of Service</td>
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<tr>
<td>4680 J</td>
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<td>6,000</td>
<td>HC-S-SW</td>
<td>Empty</td>
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</tr>
<tr>
<td>4680 K</td>
<td>1995</td>
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<td>HC-S-SW</td>
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</tr>
<tr>
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<td>800</td>
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<td>Emergency Generator</td>
</tr>
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<td>6906 A</td>
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<td>Emergency Generator</td>
</tr>
<tr>
<td>6906 B</td>
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<td>15,000</td>
<td>HC-S-DW</td>
<td>Diesel</td>
<td>Emergency Generator</td>
</tr>
<tr>
<td>6906 C</td>
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<td>15,000</td>
<td>HC-S-DW</td>
<td>Diesel</td>
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<tr>
<td>8485 C</td>
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<td>800</td>
<td>R-S-DW</td>
<td>Used Oil</td>
<td>Oil Collection and Storage</td>
</tr>
</tbody>
</table>

R = Rectangular  VC = Vertical Cylinder  DW = Double Walled
C = Circular  S = Steel  SW = Single Walled
HC = Horizontal Cylinder
2.3.2 Underground Storage Tanks

There are 9 USTs on FGGM that total 129,000 gallons in oil storage capacity. All are of double-walled construction with interstitial monitoring. Table 2-2 lists all petroleum USTs on FGGM.

Table 2-2 FGGM Petroleum USTs

<table>
<thead>
<tr>
<th>Tank ID</th>
<th>Installed</th>
<th>Volume (gallons)</th>
<th>Containment</th>
<th>Contents</th>
<th>Tank Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0060B A</td>
<td>1989</td>
<td>20,000</td>
<td>DW</td>
<td>Gasoline</td>
<td>Distribution</td>
</tr>
<tr>
<td>0060B B</td>
<td>1989</td>
<td>20,000</td>
<td>DW</td>
<td>Diesel</td>
<td>Distribution</td>
</tr>
<tr>
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<td>1989</td>
<td>20,000</td>
<td>DW</td>
<td>Fuel Oil #2</td>
<td>Distribution</td>
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<tr>
<td>0060B D</td>
<td>1989</td>
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<td>DW</td>
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<td>Distribution</td>
</tr>
<tr>
<td>2480 B</td>
<td>1992</td>
<td>1,000</td>
<td>DW</td>
<td>Diesel</td>
<td>Emergency Generator</td>
</tr>
<tr>
<td>4706 A</td>
<td>1997</td>
<td>12,000</td>
<td>DW</td>
<td>Gasoline</td>
<td>Distribution</td>
</tr>
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<td>4706 B</td>
<td>1997</td>
<td>12,000</td>
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<td>Gasoline</td>
<td>Distribution</td>
</tr>
<tr>
<td>4706 C</td>
<td>1997</td>
<td>12,000</td>
<td>DW</td>
<td>Gasoline</td>
<td>Distribution</td>
</tr>
</tbody>
</table>

DW = Double Walled

2.3.4 Oil Operations Permit

FGGM operates under a Maryland Department of the Environment (MDE) validated Oil Operations Permit No. 2009-OPT-3191, effective date 20 March 2009, expiration date 20 March 2014. This requirements of this permit are applicable to oil storage and handling at FGGM and are included by reference in this SPCC Plan. A complete copy of this permit is included with this SPCC Plan as Appendix J.

2.4 OIL-FILLED ELECTRICAL, MANUFACTURING, AND OPERATING EQUIPMENT

The term bulk storage container (see Definitions), means any container used to store oil for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment are not considered bulk storage containers.

Oil-filled electrical equipment (e.g., transformers), manufacturing equipment, or operating equipment are distinct from bulk storage containers in their purpose. Oil-filled manufacturing equipment stores oil only as an ancillary element of performing a mechanical or chemical operation to create or modify an intermediate or finished product. Examples of oil-filled manufacturing equipment may include reaction vessels, fermentors, high pressure vessels, mixing tanks, dryers, heat exchangers, and distillation columns (no oil-filled manufacturing equipment is present at FGGM). Under the SPCC rule (40 CFR 112 et seq.), flow-through process vessels are considered oil-filled manufacturing equipment since they are not intended to store oil. Oil-filled operating equipment stores oil integral to the operating equipment (e.g., hydraulic units).

For the purposes of this SPCC Plan, oil filled electrical, manufacturing, and operating equipment includes oil-water separators (OWSs) and electrical transformers. These are not considered bulk storage containers.
2.4.1 Oil/Water Separators

There are 17 OWSs in use at FGGM. Table 2-3 lists these OWSs.

**Table 2-3 FGGM Oil/Water Separators**

<table>
<thead>
<tr>
<th>Building</th>
<th>Organization</th>
<th>Capacity (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60B</td>
<td>TMP Gas Station</td>
<td>1,000</td>
</tr>
<tr>
<td>72A</td>
<td>DOL Car Wash</td>
<td>1,500</td>
</tr>
<tr>
<td>72 A</td>
<td>DOL Maintenance Shop</td>
<td>2,200</td>
</tr>
<tr>
<td>72</td>
<td>DPW Wash Rack</td>
<td>2,000</td>
</tr>
<tr>
<td>72</td>
<td>Parking Lot</td>
<td>2,000</td>
</tr>
<tr>
<td>78</td>
<td>DRMO</td>
<td>300</td>
</tr>
<tr>
<td>2120 C</td>
<td>ECS 86 Wash Rack</td>
<td>1,000</td>
</tr>
<tr>
<td>2120 C</td>
<td>ECS 86 Motor Pool Drainage</td>
<td>300</td>
</tr>
<tr>
<td>2246</td>
<td>DOL Tactical Unit</td>
<td>2,000</td>
</tr>
<tr>
<td>6530</td>
<td>Auto Craft Shop Wash Rack</td>
<td>2,200</td>
</tr>
<tr>
<td>6530</td>
<td>Craft Shop Drainage</td>
<td>300</td>
</tr>
<tr>
<td>2630</td>
<td>Emergency Vehicle Wash Rack</td>
<td>2,000</td>
</tr>
<tr>
<td>2724</td>
<td>Outdoor Recreation Wash Rack</td>
<td>4,400</td>
</tr>
<tr>
<td>NA (Dutt Road)</td>
<td>Wash Rack</td>
<td>2,000</td>
</tr>
<tr>
<td>4587</td>
<td>AAFES Garage</td>
<td>800</td>
</tr>
<tr>
<td>4680</td>
<td>AAFES Gas Station</td>
<td>300</td>
</tr>
<tr>
<td>8549</td>
<td>1st Army Band</td>
<td>4,000</td>
</tr>
</tbody>
</table>

2.4.2 Electrical Transformers

The high voltage electrical grid for the installation contains several hundred oil-containing transformers containing dielectric (mineral) oil. FGGM is undergoing a privatization project with BG&E. This project involves the replacement of the entire electrical grid and is estimated to take four to six years. Once completed, the entire electrical grid for FGGM will be owned, managed, and maintained by BG&E.

The transformers used in the power distribution system have oil-containing capacities ranging from a few gallons to 6,000 gallons. These transformers are installed in a variety of configurations including pole-mounted and on aboveground concrete pads. The dielectric oil in these transformers is filled as part of the manufacturing process and is typically left in place throughout the service life of the unit. Typically, there is no handling or transfer of oil involved in routine installation, operations and maintenance of transformers.

DPW has oversight and maintenance responsibilities for the existing FGGM-owned transformers. BG&E has maintenance and oversight responsibilities for the transformers that are installed as part of the new system and for the entire system upon completion of the privatization project. Both of these groups conduct inspections of the transformers on a routine basis and perform maintenance, repair, and replacement, as needed.

None of the transformers are provided with secondary containment (with the exception of two 6,000-gallon capacity BGE transformers discussed later in this subsection). Most of the...
transformers are located near buildings or activity sites and can be checked easily for leaks. The risk of a discharge from a transformer reaching navigable waters is comparatively low. Should the contents of a transformer leak, it is expected that the spill would be discovered rapidly (due to the fact that the transformer will likely shut down because of overheating due to loss of cooling oil) and be contained at the site. Table 2-4 (next page) lists electrical transformers containing appreciable quantities of oil (i.e., 55 gallons or greater).

Two 6,000-gallon capacity pad-mounted transformers are located at the Rock Avenue BGE substation. These transformers and the BGE substation are designed to provide oil retention in the event of a release. The transformer pads are surrounded by stone-filled fire quenching basins that discharge to two pre-cast concrete oil retention vaults (west and east). The east vault is equipped with a Zoeller® sump pump designed with a NUTEC Enterprises® “oil-smart” switch for discharging accumulated rainwater, as well as for removing recovered oil. FGGM Environmental Division maintains design drawings for this BGE substation.

South transformer. North transformer.

Stone-filled fire quenching basin. Basin discharge to oil retention vault.

Oil retention vaults/OWS with discharge. Oil retention vaults/OWS.
## Table 2-4  FGGM Electrical Transformers

<table>
<thead>
<tr>
<th>Area</th>
<th>Pole No.</th>
<th>Number of Transformers</th>
<th>Transformer Capacity (kVA)</th>
<th>Oil Capacity (gallons)</th>
<th>Total Oil Quantity (gallons)</th>
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<td>294</td>
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<tr>
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<td>767</td>
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<td>167</td>
<td>90</td>
<td>270</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td>300</td>
<td>131</td>
<td>262</td>
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<td>Rock Ave.</td>
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<td>12,000</td>
<td></td>
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</tr>
</tbody>
</table>
3.0 CONTAINMENT AND DIVERSIONARY STRUCTURES

Containment or diversionary structures (e.g., secondary containment structures, impervious flooring, curbing) are intended to prevent discharged oil from reaching navigable waters. Appendix A identifies the containment and diversionary structures for each of the identified oil storage and handling locations at FGGM.
4.0 OIL DISCHARGE PREDICTIONS

This SPCC Plan is required to provide a prediction of the direction, rate of flow, and total quantity of oil that could be discharged from oil storage and handling locations where the potential for equipment failure or oil discharge exists.

4.1 DISCHARGE PREDICTIONS AT OIL STORAGE AND HANDLING LOCATIONS

Appendix A provides a prediction of the direction, rate of flow, and total quantity of oil that could be discharged from the individual oil storage and handling locations.

4.2 DESCRIPTION OF SURFACE DRAINAGE AND STORM WATER COLLECTION SYSTEM

Surface drainage at FGGM is directed both by topography and storm water conveyances to the FGGM storm water collection system. The site diagrams contained in Appendix A provide an illustration of surface drainage and depict the FGGM storm water collection system in the area of the individual oil storage and handling locations.
5.0 PREVENTION MEASURES

This section describes the spill prevention measures that are required to be implemented at FGGM.

5.1 INSPECTIONS, TESTS, AND RECORDS

Inspections and tests required for each oil storage area and the records of these inspections and tests are required to be maintained with this SPCC Plan.

5.1.1 Monthly Visual Inspections

Monthly visual inspections of all oil storage locations are required by this SPCC Plan. FGGM personnel that conduct visual inspections are to be knowledgeable of the contents of this plan and the facility (e.g., a facility manager, a facility maintenance, engineering, or environmental person).

These inspections are to be recorded on the Monthly Aboveground Tank Inspection Checklist contained in Appendix E to this SPCC Plan. During these inspections, the inspector must:

- inspect all oil storage facilities and equipment (including tank support legs, associated piping, and foundations) for deterioration, malfunctions, or operational deficiencies;
- inspect the area immediately surrounding the tank for signs of release, overfills, or other indications of oil discharge such as distressed vegetation;
- inspect the interstitial space between the walls of double-walled tanks as appropriate; and
- record inspection findings on the Monthly Aboveground Tank Inspection Checklist and sign and date the form.

More frequent, informal inspections of oil storage and handling locations, including heating oil tanks, are performed as part of normal facility operations. Although these inspections are not documented, they assist with identifying facility and equipment deterioration, malfunctions, or operational deficiencies.

5.1.2 Integrity Testing

40 CFR 112(a)(c)6 requires that each aboveground container be tested for integrity on a regular schedule and whenever material repairs are made. Visual inspection is to be combined with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing; however, the use of routine visual inspections in place of non-destructive, physical tests is an acceptable alternative to integrity testing for smaller, shop-built (i.e., not field-constructed) aboveground containers in accordance with the USEPA’s Preamble to the Final SPCC Rule, published in the July 17, 2002 Federal Register, page 47120, column 1. The preamble states, “For certain smaller shop-built containers in which internal corrosion poses minimal risk of failure; which are inspected at least monthly; and, for which all sides are visible (i.e., the container has no contact with the ground), visual inspection alone might suffice, subject to good engineering practice.”

Accordingly, for FGGM ASTs that are small shop-built ASTs, that are constructed to Underwriters Laboratory (UL) 142 standards for the aboveground storage of flammable liquids, and where all sides of the ASTs are visible (i.e., the bottom of the AST does not make direct
contact with the ground or soil surface), the use of routine visual inspections alone suffices and no other integrity testing is required.

All personnel conducting tank integrity testing shall be appropriately trained (i.e., API 653, API Recommended Practice 575, Steel Tank Institute's SP001-00 or R912-00, or equivalent). The type of integrity test appropriate for single-walled steel tanks is an ultrasonic or acoustic test of the tank walls, and for double-walled tanks is a static pressure test (either hydrostatic or gaseous/pressure test using an inert gas) or equivalent method of determining the integrity of the inner tank.

Integrity testing is to be recorded on the Certified Tank Inspection Report / Tank Integrity Report contained in Appendix E to this SPCC Plan.

5.1.3 Records of Inspections and Tests

Records of the monthly visual inspections, integrity tests, and any other/additional inspections or tests performed for the purpose of this SPCC Plan or oil spill prevention shall be retained by the facility with this SPCC Plan for at least 5 years.

5.2 PERSONNEL TRAINING

Experienced, well-trained personnel are essential for the successful implementation of this SPCC Plan at FGGM. USEPA studies indicate that a significant number of oil spills at fixed facilities are the result of operator error, such as failing to close valves properly or overfilling tanks or containers during oil transfer operations. Training provides a number of benefits in the area of oil spill preparedness. Proper training of facility personnel can reduce the occurrence of operator-related spills and reduce the severity of impacts when a spill does occur. Training also encourages spill control planning, sharpens operation and response skills, promotes interaction with the facility emergency response organization, and increases familiarity with this SPCC Plan.

All facility personnel who handle oil are required to 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. The DPW ED or other approved, qualified representatives conduct this training at each facility at least once per year.

All facility personnel who handle oil are required to be provided with oil discharge prevention briefings addressing the above training at least once each year to assure adequate understanding of this SPCC Plan. These oil discharge prevention briefings shall also highlight and describe any known discharges or failures, malfunctioning components, and recently developed precautionary measures.

FGGM accomplishes training for the purposes of this SPCC Plan via the implementation of a comprehensive oil spill prevention training program. Appendix H contains a summary of the FGGM Training Program, to include standard forms for record keeping.

In addition, all contractors that handle oil while at the facility are required to be trained to respond to spills. Oil handling contractors are responsible for providing their own training.

Documentation of training required by this SPCC Plan is to be maintained with this SPCC Plan for at least 5 years.

5.3 SECURITY MEASURES
Security measures are required to be implemented at FGGM as a component of this SPCC Plan. General security measures implemented FGGM include the following.

- FGGM is a secure military installation; Military Police (MPs) patrol the installation, to include oil storage and handling locations, on a regular basis.
- Sufficient lighting is present in the areas of ASTs and containers to assist in the discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel, and prevention of discharges occurring through acts of vandalism.
- The presence of unknown or unauthorized persons on facility property is to be reported to security personnel immediately.
- Loading/unloading connections are securely capped, blank-flanged, or securely locked when not in service for an extended period of time.
- All fuel trucks are inspected upon entering the installation; the MP escorts fuel trucks onto the installation, throughout the off-loading process, and then off the installation.
- Drivers of fuel trucks traveling around ASTs are warned by signs and/or otherwise restrained by vehicle barriers (e.g., bollards) to ensure that vehicles do not endanger the ASTs or piping, or other oil transfer operations.

5.4 TANK CAR AND TANK TRUCK LOADING/UNLOADING RACK

The USEPA has defined a tank car and tank truck loading/unloading rack (see Definitions). A tank car and tank truck loading/unloading rack means a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is located at a facility subject to the requirements of 40 CFR 112 (see Definitions). A loading/unloading rack includes a loading or unloading arm, and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personnel safety devices. Facility equipment (rather than vehicle equipment) is used to load/unload fuel. A conventional dispenser used to fill a tank truck does not constitute a loading/unloading rack.

The fuel truck loading/unloading area located at the DOL Government Vehicle Fueling Station does not meet the USEPA definition of a tank car and tank truck loading/unloading rack.

5.5 TANK TRUCK UNLOADING AND FUEL TRANSFERS

Tank truck unloading and fuel transfers occur at FGGM. These fuel transfers include filling of ASTs and USTs, the transfer of fuel via piping between storage tanks and the associated buildings or emergency generators, and the transfer of fuels from ASTs and USTs to vehicles.

The tank truck unloading and fuel transfer procedures presented in this subsection are applicable to all unloading and fuel transfer and require that an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle brake interlock system be used to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines and that prior to filling and departure of any tank truck, the lowermost drain and all outlets of the vehicle be inspected for discharge and if necessary, that they are tightened, adjusted, or replaced to prevent liquid discharges while in transit.

The transfer of fuel via piping between ASTs and USTs and the associated buildings or emergency generators is via copper or fiberglass-reinforced plastic (FRP) pipe. Aboveground piping is secured and protected from accidental damage by their location.
The transfer of fuel from both ASTs and USTs to vehicles occurs at two locations: the Government Vehicle Filling Station and the AAFES Shoppette.

Commercial tanker trucks unload and transfer oil to FGGM ASTs and underground storage tanks (USTs). DPW maintains a 3,000-gallon capacity mobile refueler and a Ford F-450 equipped with four portable fuel tanks (one 500-gallon capacity and three 100-gallon capacity) to unload and transfer oil to FGGM ASTs and USTs.

The following general tank truck unloading and fuel transfer procedures apply to all fuel transfer operations at the facility, whether conducted by DPW or commercial tanker.

- All AST and UST connections shall be securely capped when fuel transfer is not taking place.
- No smoking or open flames shall be allowed near the fuel transfer site during fuel transfer operations.
- Vehicular traffic granted entry into the facility shall be made aware of oil storage facilities by appropriately posted warning signs or appropriate placed barriers (e.g., bollards).
- Vehicles shall be secured with parking brakes and physical barriers (e.g., wheel chocks, warning signs, interlocks) to safeguard against accidental movement prior to fuel transfer.
- Vehicles shall be shut off prior to fuel transfer (unless vehicle must be running to operate fuel pumps).
- Drip pans or other appropriate containment devices shall be placed under all connections prior to fuel transfer taking place.
- Should a storm drain inlet be in close proximity to the fuel transfer area, spill pigs shall be placed around, or a drain mat placed over the storm water inlet during fuel transfer.
- All equipment and loading/unloading connections shall be inspected and any identified deficiencies shall be corrected prior to fuel transfer taking place.
- Available capacity in the receiving container shall be verified prior to initiating fuel transfer operations.
- At least one individual, and with commercial truck fuel transfers preferably two individuals, shall be present at the point of transfer at all times during fuel transfer operations to monitor connections; these individuals are the vehicle driver and a facility representative.
- All fuel transfer operations shall be complete prior to disconnecting lines.
- All loading/unloading lines shall be drained and valves closed and locked prior to disconnecting lines.
- Vehicles shall be inspected prior to departure to ensure that all loading/unloading lines have been disconnected and all drain and vent valves are closed.
- Vehicles shall be inspected prior to departure to ensure that all drains are free of leakage and any identified deficiencies are corrected to prevent liquid leakage while in transit.
- Any leakage or spilling shall be immediately reported in accordance with the spill response procedures contained in this SPCC Plan.
5.6 DRAINAGE OF SECONDARY CONTAINMENT STRUCTURES

Rainwater may accumulate in the secondary containment of ASTs and need to be drained. Drainage valves for secondary containment basins are to be secured in the closed position at all times. Should the need to drain the secondary containment arise, documentation of facility drainage inspections is required. Each time a secondary containment basin is drained of accumulated liquids, the following information must be documented:

- date/time of activity;
- presence/absence of oil sheen;
- approximate quantity of liquids drained (if any);
- confirmation that the drains were closed or plugs replaced following use; and
- name and signature of person performing the activity.

Drainage of secondary containment basins is to be recorded on the Secondary Containment Drainage Inspection form contained in Appendix E to this SPCC Plan.
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6.0 SPILL RESPONSE AND REPORTING

In accordance with AR 200-1, the Garrison Commander at Fort Meade has pre-designated the Director of Public Works (DPW) as the (IOSC) responsible for the control and cleanup of all oil and hazardous substance spills on FGGM. In accordance with Federal regulations, the DPW serves as the Qualified Individual (QI) and has full authority, to include contractual authority, to implement all aspects of this FGGM SPCC Plan, and to clean up and remove all oil and hazardous substance spills. The DPW ED Chief has been designated as the Alternate IOSC/QI and has similar authority. The Alternate IOSC takes control in the event of IOSC absence. If the IOSC is present, the Alternate becomes his assistant for implementation of this SPCC plan.

6.1 INSTALLATION ON-SCENE COORDINATORS

Appendix D identifies the IOSC and Alternate IOSC and provides contact information. All FGGM and tenant oil-handling personnel assigned to the particular FGGM facility will, in the event of a spill, become part of the Initial Response Team (IRT) under the direction of the particular IOSC.

6.1.1 Installation On-Scene Coordinator Responsibilities

The IOSC has primary responsibility for actions following a spill, and coordinates spill response activities with the IRT. The IOSC’s primary responsibilities include:

- Ensuring that this SPCC plan is reviewed, evaluated, and amended within 6 months of a change in facility design, construction, operation, or maintenance that affects the facility’s potential for the discharge of oil or hazardous substances; when the facility has spilled more than 1,000 gallons of oil in a single spill; or when two spills of more than 42 gallons each have occurred within any 12-month period.

- Ensuring that this SPCC Plan is reviewed, evaluated, and amended at least once every five years from the date of certification.

- Ensuring copies of this SPCC Plan are distributed to appropriate oil-handling personnel at the facility and authorized emergency response agencies who request it.

- Ensuring oil-handling personnel have been appropriately trained.

- Ensuring inspections required by this SPCC Plan are conducted.

- Notifying the Garrison Commander or local Fire Department of any facility spills.

- Notifying the appropriate Federal and State of Maryland agencies of any spills. It should be specifically noted that the IOSC is to immediately notify the MDE of a reportable quantity (RQ) spill.

6.2 INITIAL RESPONSE ACTIONS

Oil discharges to the ground or surface waters create unique environmental problems as a small amount of oil can contaminate a large volume of water. Therefore, facility personnel are to place a high priority on preventing discharges from occurring as well responding to and cleaning up minor discharges and leaks in a timely manner. Personnel safety and protection of human health take precedence over environmental protection.

All FGGM and tenant oil-handling personnel assigned to the particular FGGM facility will, in the event of a spill, become part of the IRT under the direction of the particular IOSC.
In the event that a spill occurs at the facility, the following spill response procedures shall be followed by oil-handling personnel to respond to, control, and mitigate the impacts of the spill.

- **IDENTIFY THE LOCATION AND SOURCE** (if possible) of the spill, the type of material spilled (i.e., diesel), and the approximate quantity.

- Take immediate measures to **SLOW OR STOP THE RELEASE** of material only if these measures can be implemented without endangering personal safety.

- **SHUT OFF ALLignition SOURCES** in the area of the spill only if these measures can be implemented without endangering personal safety.

- If the flow is moving toward a storm drain inlet, significant effort should be made to **CONTAIN THE SPILL** and prevent the material from reaching the inlet. This may include covering the inlet with a drain mat, surrounding the drain with oil containment boom/absorbent materials, or covering the inlet with a rubber/plastic sheet, steel sheeting, etc., and sealing the edges with a temporary earthen dike to prevent the flow from spreading.

- **REPORT ALL SPILLS** as soon as possible to your supervisor or the facility Spill Coordinator. The supervisor or the facility Spill Coordinator shall report the spill to the IOSC. A small spill where little flow is involved and the spill has not yet reached soil or a water body shall be contained by absorbent material (absorbent pads). All absorbent materials should be properly disposed of. The leak should be reported to the IOSC for recordkeeping purposes. If spill occurs after hours and is a large spill with a potential threat to safety or the environment, report the spill immediately to the Department of Emergency Services at 911.

**6.3 IOSC RESPONSE ACTIONS**

The response actions of the IOSC include:

- The IOSC shall determine whether an immediate evacuation of on-site personnel is required, and if so, notify via telephone, radio system or word of mouth of the spill that could pose an immediate threat, secure the area to unauthorized personnel, and provide assistance in following predetermined evacuation routes.

- The IOSC shall notify the appropriate spill response personnel and the DPW ED (the DPW ED will notify required agencies of spills that exceed RQs).

- The IOSC shall ensure containment and countermeasures such as source control and barrier placement are initiated.

- If possible, the IOSC shall initiate cleanup, mitigation and disposal unless relieved by an outside agency. All contaminated material will be placed appropriate containers (e.g., drums, overpacks, bags).

- The IOSC will report spills to higher headquarters.

- The IOSC shall provide documentation for verbal external reporting requirements and follow-up written reports.

Appendix F to this SPCC Plan provides guidance regarding cleanup methods and techniques.
6.4 SPILL REPORTING

Spill reporting procedures vary depending on whether the discharge reaches water and the volume of oil discharged. Table 6-1 provides a complete list of emergency contacts.

Table 6-1 Emergency Contacts

<table>
<thead>
<tr>
<th>Organization / Individual</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES/Fire/OSC</td>
<td>911</td>
</tr>
<tr>
<td>DPW IOSC / QI</td>
<td>(301) 677 9141</td>
</tr>
<tr>
<td>DPW Environmental Division, Chief</td>
<td>(301) 677 9188 / 9648, (301) 787 6309 (mobile)</td>
</tr>
<tr>
<td>Provost Marshal / Military Police</td>
<td>(301) 677-6622 / 6623 / 6450 / 6029</td>
</tr>
<tr>
<td>Public Affairs Officer (PAO)</td>
<td>(301) 677-1361</td>
</tr>
<tr>
<td>Legal Office</td>
<td>(301) 677-9536</td>
</tr>
<tr>
<td>Installation Support Services Contractor (Melwood)</td>
<td>(301) 677-1629 (24-hour)</td>
</tr>
<tr>
<td>National Response Center (NRC)</td>
<td>(800) 424-8802</td>
</tr>
<tr>
<td>USEPA Region III</td>
<td>(215) 814-5000</td>
</tr>
<tr>
<td>Defense Logistics Agency Energy Americas East</td>
<td>(703) 767 8420 (24 hour)</td>
</tr>
<tr>
<td>Local Fire Department</td>
<td>911</td>
</tr>
<tr>
<td>Local Hospital</td>
<td>911</td>
</tr>
<tr>
<td>National Poison Control Center</td>
<td>(800) 222-1222</td>
</tr>
<tr>
<td>CHEMTREC</td>
<td>(800) 262-8200</td>
</tr>
<tr>
<td>Clean Harbors, Environmental Services, Inc.</td>
<td>(800) 645-8265</td>
</tr>
<tr>
<td>US Navy Supervisor of Salvage (SUPSALV)</td>
<td>(202) 781-1731</td>
</tr>
</tbody>
</table>

6.4.1 Federal Reporting / National Response Center (NRC)

Regardless of the quantity of oil discharged, any discharge may meet the definition of a “spill event” if the oil reaches a water body, stream, or ditch. A spill event occurs when the oil was discharged into or upon navigable waters of the United States or adjoining shorelines in harmful quantities. ‘Harmful quantities’ is defined in 40 CFR Part 110 as quantities that:

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

The term “navigable waters” is broadly defined under the Clean Water Act (CWA) and the Oil Pollution Act to include all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all water subject to the ebb and flow of the tide; interstate waters including wetlands; all other waters such as intrastate lakes, rivers, and streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce; tributaries of these waters; and...
wetlands adjacent to waters. Essentially, the term “navigable waters” refers to any natural surface water in the United States.

If a spill event occurs, the 24-hour National Response Center (NRC) is to be notified immediately via telephone at (800) 424-8802. The FGGM DPW Environmental Division (ED) will make this call.

6.4.2 Maryland Department of Environment (MDE)

The Maryland Department of the Environment (MDE) maintains a 24-hour Spill Response Line at (866) 633-4686. Maryland has emergency reporting requirements similar to federal reporting requirements for oil spill events to Maryland/state waters. The Code of Maryland (COMAR) does not duplicate the Federal requirements; however, Title 26, Subtitle 10 (COMAR 26.10) contains oil spill reporting requirements similar to the Federal requirements. All spills that meet Federal RQs must be reported to the MDE at the above number. The FGGM DPW Environmental Division (ED) will make this call.

6.4.3 Report Information

In the event of a discharge and release of petroleum of a reportable quantity, the following information is to be collected to adequately report the incident: The notification of a discharge must be immediate, but in no case later than two hours after the discharge.

- Name of person making report and his/her relationship to any person which might be responsible for causing the discharge;
- Time and date of the discharge;
- Probable source of the discharge;
- The location of the discharge, both geographic and with respect to bodies of water.
- Type of petroleum discharges;
- Possible health or fire hazards resulting from the discharge;
- Amount of petroleum discharged.
- All actions that are being taken to clean up and remove the discharge;
- The personnel presently on the scene; and
- Other government agencies that have been or will be notified

6.5 DISPOSAL OF RECOVERED MATERIALS

It is the responsibility of the IOSC to ensure that any recovered materials are disposed of properly once spill cleanup has occurred. Appendix F to this SPCC Plan provides guidance regarding cleanup methods and techniques. The off-post transportation and disposal of all waste will be directed and coordinated by the DPW Environmental Division (ED).

The Resource Conservation and Recovery Act (RCRA) and its implementing regulations contained in Title 40, CFR Parts 260 to 279, provide specific guidance to the IOSC and DPW ED on the disposal of hazardous waste. Guidance for the classification of hazardous waste is provided in 40 CFR Part 261. In order to determine the appropriate disposal methodology, a sample of the recovered product may either be characterized through laboratory analysis in accordance with 40 CFR Part 261, Subpart C, or be characterized by generator knowledge, i.e., typically using the Material Safety Data Sheet (MSDS) for the spilled product.
Following an oil spill/hazardous substance release, the responsible party and the IOSC will dispose of all recovered oil and hazardous substances and contaminated debris and water in accordance with Federal (i.e., 40 CFR 261, 264, 265 and 266) and State of Maryland requirements. The OSRO (Oil Spill Removal Organizations) will participate if the size of the spill requires its involvement. Collection, recovered material sampling, analysis, staging and disposal should be assigned to a representative from the DPW ED in order to assure a coordinated effort. These tasks should be assigned to the OSRO's Operations Manager, under DPW ED supervision, in the event of a large spill.

Recovered materials may be subject to laboratory analysis to characterize the materials. At a minimum, laboratory analysis will be conducted for hazardous waste constituents (to include PCBs) and, if applicable, volatile organic compounds (VOCs). The tests on the oil phase will include a test for flash point, total halogens, and for metals such as arsenic, cadmium, and lead. The tests on the water phase will include a test for total halogens and for metals such as arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. Care will be taken to ensure that in the affected areas, no waste that may be incompatible with the released oil or hazardous substance is treated, stored or disposed of before cleanup operations are completed.

The DPW ED routinely works with licensed, commercial vendors to sample, analyze, and dispose of regulated and hazardous wastes and would, in a spill event emergency, continue to do so or directly coordinate with the OSRO in order to dispose of the recovered materials.

Treatment, Storage, and Disposal facilities (TSDF) regularly used by FGGM have been approved by Federal and State regulatory agencies; however, prior to the transfer of substantial quantities of recovered materials to a TSDF, FGGM will contact the MDE to determine if the facility is the subject of any pending investigation or litigation for any illegal activity.

6.5.1 Recovered Product

In some cases recovered petroleum products can be recycled into Army inventory. Oil that is not contaminated by other constituents will initially be placed in ASTs or other suitable containers at or near the spill site. Oil that is determined to be contaminated per 40 CFR 261 Subpart C will be transferred to a TSDF. The EPA provides specific guidance in 40 CFR Part 279 Subpart F and G relating to TSDF marketers who handle contaminated petroleum products for processing and re-refining, and for recycling as energy recovery through incineration, respectively. Depending on the size of the spill and the extent of committed resources, the IOSC may direct that the OSRO directly transfer recovered oil to a commercial vendor, and that the funds received by the OSRO for this transaction be credited toward the Army's financial obligation to the OSRO for supporting the cleanup response.

6.5.2 Oil Contaminated Water

A significant amount of water may be collected with the recovered product. This accumulation of water will quickly decrease the storage space designated for the recovered product. At the discretion of the appropriate regulatory agency, and depending on the potential harm that might result from a delayed collection effort, oil contaminated water may be decanted within the containment area at the site of the spill. A facility OWS could also be employed as a decanting receptacle provided the oil/fuel does not contain a constituent that will cause outfall permitting problems. Given the amount of the water and the OSRO’s daily recovery capability, decanting may be a viable option for all but the worst case discharge scenario.
6.5.3 Contaminated Equipment and Materials

During cleanup operations it can be expected that there may be substantial quantities of personnel protective equipment, drums, valves and components, piping and tank parts, tools, booming, etc., that will become contaminated. Personnel clothing will be decontaminated at a personnel shower point established at the spill site where showers are available for the initial decontamination/bathing of response workers. Water used for decontamination will be cycled through a catch basin and retained for later analysis and separation/recovery of product or disposal through a TSDF. The IOSC will also identify a location at FGGM where tools, equipment, parts, etc., can be decontaminated. These items will be washed with a solution that is compatible with the items being decontaminated and rinsed with aqueous solutions such as 5% sodium carbonate and 5% trisodium phosphate. Washing and rinse waters, cleansers, and decontamination solutions will be cycled through a catch basin, a prepared holding or containment pond, or an oil/water separator and retained for later analysis and separation/recovery of product, or disposal through a TSDF. The IOSC will ensure that all emergency equipment used and supplies expended during the response operation are cleaned or replenished prior to normal oil handling operations resuming. The Regional Administrator, as well as State and local agencies, must be notified that facility response equipment is available and ready for use before operations restart.

6.5.4 Contaminated Debris

During cleanup operations, solid oily debris including contaminated absorbents, soils, vegetation, flotsam, will be collected at a designated, centralized collection point (to be determined based on the location and size of the spill), placed in drums or heavy-duty plastic bags, sealed, and disposed of; this includes the equipment used at the decontamination site such as plastic ground cover, brushes, sponges, toweling, etc., that cannot be recycled. Substantial quantities of contaminated soil, once tested, may be transported to a TSDF for disposal as non-hazardous waste in accordance with applicable regulations. The disposal methodology used by the Incident Management Team for solid petroleum waste is determined on a case-by-case basis. However, final disposal can be accomplished by incineration, landfill, or recycling, or a combination of the three. Most often, disposal is accomplished by incineration which is conducted by a TSDF. For the worst case discharge, incineration might prove to be too costly, and an alternative means of disposal may be required. As previously mentioned, landfilling contaminated wastes is not preferable, but can be selected if all other avenues have been exhausted. Another solution, if practical, would be to decontaminate the solid waste using a facility oil/water separator as the receptacle for the effluent run-off, provided the oil/fuel does not contain a constituent that will cause outfall permitting problems.
Appendix A
Installation Location Diagram, Descriptions of Oil Storage Locations, and Facility Diagrams
A.1 DPW RECYCLING CENTER (BUILDING 2250)

A.1.1 General

The DPW Recycling Center is located at Building 2250 along Rock Avenue near the intersection of Rock Avenue and Pepper Street. The DPW Recycling Center also serves as a Controlled Hazardous Substance Storage Facility and Hazardous Materials Pharmacy (HAZMART). A site diagram is included at the end of this subsection.

A.1.2 Oil Storage and Handling

Two ASTs are preset at this facility. Tank 2250B is a 12,000-gallon AST used to store used oil generated at FGGM. Tank 2250C is a 6,000-gallon AST used to store oily water generated on FGGM. The tanks are equipped with receiving basins for used oil and oily water. Used oil and oily water is then pumped through aboveground piping to the respective ASTs.

<table>
<thead>
<tr>
<th>Tank Number</th>
<th>Volume (gallons)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>2250B</td>
<td>12,000</td>
<td>Used Oil</td>
</tr>
<tr>
<td>2250C</td>
<td>6,000</td>
<td>Oily Water</td>
</tr>
</tbody>
</table>

This facility serves as the central receiving facility of used petroleum products and used hazardous materials. The entire storage yard is secured by a chain link fence an access is controlled by an automatic locked gate.

Building 2250 also houses the Controlled Hazardous Substance Storage Facility and HAZMART. The HAZMART is the central facility on-Post for receiving and distributing small amounts of hazardous materials including (but not limited too) small amounts of petroleum products, cleaners, and degreasers. These materials are ordered through the HAZMART directly by the requesting activity. The HAZMART tracks the shipment and delivery of the product to the unit or activity and is the central receiving center for empty containers and any unused products.

Normal operating hours for the DPW Controlled Hazardous Substance Storage Facility are from 0700 to 1500 hours, Monday through Friday. The site is operated by a full-time civilian operations staff. Used petroleum products are transported to this facility by Melwood, Inc. The ASTs at this site are emptied approximately two to three times per year. The oil is transported off-Post to a recycling center by a DLA contractor. Approximately 15,000 to 20,000 gallons of used oil are processed through this facility per year.

Aboveground piping facilitates visual inspection and allows for leak detection. Operating personnel are trained in safe product handling practices and are qualified to control small discharges that may occur in the course of normal transfer operations. Spill kits containing absorbent materials are staged inside the building.

A.1.3 Containment and Diversionary Structures

The ASTs are double-walled construction and equipped with interstitial monitoring with high-liquid level and interstitial alarms. The alarm panel is located inside the building. The ASTs and associated aboveground piping are situated on a concrete surface.

A.1.4 Drainage and Oil Discharge Prediction

Site drainage is primarily by surface flow to the south. Runoff flows into a storm drain at the southern end of the facility. The drain then flows to the south and eventually into Midway Branch and ultimately into the Little Patuxent River. A site diagram indicating drainage pathways is included at the end of this subsection.
Discharge from the ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying concrete surface and spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture or a discharge during fuel transfer operations could be significant (up to 12,000 gallons instantaneously).

Discharge from aboveground piping associated with the ASTs or from fuel transfers would flow onto the underlying concrete surface and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 200 gallons/hour).
Building 2250, Tanks 2250C (background) and 2250B (foreground)

Building 2250, Used Petroleum and Hazardous Material Disposal

Building 2250, Hazardous Material Storage Lockers
A.2 AAFES SHOPPETTE AND GARAGE (BUILDINGS 4706 AND 4587)

A.2.1 General
The Army and Air Force Exchange System (AAFES) operates two facilities on FGGM with oil storage and handling; the AAFES Garage (Building 4587), and AAFES Shoppette (Building 4706). The AAFES Shoppette provides gasoline for U.S. military personnel and their family members as well as other authorized persons. The AFFES Garage provides vehicle maintenance on personal vehicles for U.S. Military personnel and their family members and as other authorized persons. The hours of operation for all three AAFES activities are listed below. The AAFES Gas Station and Garage are managed by the same store manager. The AAFES Shoppette has a dedicated store manager and staff.

AAFES Garage Operational Hours:
- Monday through Friday 0700 to 1800 hours
- Saturday 0900 to 1600 hours
- Sunday 1100 to 1600 hours

AAFES Shoppette Operational Hours:
- 7 days per week, 24 hours per day

A.2.2 Oil Storage and Handling
Two ASTs are present at the AAFES Garage and three USTs are present at the AAFES Shoppette. These are summarized in the table below.

<table>
<thead>
<tr>
<th>AAFES Activity</th>
<th>Tank Numbers</th>
<th>Capacity (gallons)</th>
<th>Tank Type</th>
<th>Tank Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAFES Garage</td>
<td>4587A</td>
<td>750</td>
<td>AST</td>
<td>New Oil</td>
</tr>
<tr>
<td></td>
<td>4587F</td>
<td>800</td>
<td>AST</td>
<td>Used Oil</td>
</tr>
<tr>
<td>AAFES Shoppette</td>
<td>4706A</td>
<td>12,000</td>
<td>UST</td>
<td>Regular Unleaded Gasoline</td>
</tr>
<tr>
<td></td>
<td>4706B</td>
<td>12,000</td>
<td>UST</td>
<td>Mid-Grade Unleaded Gasoline</td>
</tr>
<tr>
<td></td>
<td>4706C</td>
<td>12,000</td>
<td>UST</td>
<td>Premium Unleaded Gasoline</td>
</tr>
</tbody>
</table>

A.2.3 Containment and Diversionary Structures
The ASTs and USTs are of double-walled construction and equipped with high-liquid level alarms and interstitial monitoring.

The 800-gallon used oil AST is double-walled and equipped with and interstitial leak detection system and high-level alarm. The 750-gallon new oil AST is a double walled tank. All 55-gallon drums at the AAFES Garage are stored on secondary containment racks. An OWS is located beneath the maintenance portion of the building. The separator intercepts water from building floor drains and then discharges to the sanitary sewer.

The USTs are double-walled and equipped with a visual and audio alarm system. During hours of operation, supervisory and sales personnel are present throughout the facility and would quickly detect any surface discharge should it occur. Such a discharge could happen during bulk resupply operations, automotive fueling (all pumps are self-service). During resupply operations, tank truck operators are required to remain with the trucks during the fuel transfer and would stop refueling should a spill occur. The emergency shutoff switch is located outside of the building and a spill kit is located in the sales both located in the middle of the fueling islands.
The AAFES Shoppette USTs are equipped with a Veeder-Root Monitoring System. This system allows the station manager to print out a report of the amount of fuel, by tank, on hand. This is normally done at the conclusion of every day and the results are recorded. All of the fuel sold at the AAFES stations is delivered under contract by a commercial vendor. Fuel is ordered by the shoppette by an automated system. The AAFES Shoppette typically receives three to four fuel deliveries per day and sells approximately 400,000 to 500,000 gallons per month.

All fuel trucks entering the Installation are inspected as part of the standard operating procedures. The fuel trucks are then escorted to the AAFES Shoppette by Security. The escort stays with the truck during the fueling operation and then escorts the truck off-Post. During normal operating hours, supervisory, maintenance and sales personnel are present throughout the facility and would quickly detect any surface discharge should it occur. Such a discharge could happen during bulk resupply operations, automotive fueling (all pumps are self-service) or maintenance operations. During resupply operations, tank truck operators are required to remain with the trucks during the fuel transfer and would stop refueling should a spill occur. Access to the fill pipe for each tank is within a loading pit that is able to contain small spills. These pits are closed and the covers locked except during resupply operations. An emergency shutoff switch and spill kit are located at the retail sales booth near the third pump island.

A.2.4 Drainage and Oil Discharge Prediction

Drainage from both AAFES facilities in general will flow to the lowest topographic point and then enter the storm drainage system through drop inlets. Drainage from the AAFES Shoppette is generally by sheet flow to storms drains, which flows via a storm drainage system to Franklin Branch. Drainage from the 800-gallon used oil AST would flow to a storm drain via sheet flow, which discharges into Midway Branch. Drainage from the 750-gallon AST would most likely flow to the oil/water separator. A site diagram indicating drainage pathways is included at the end of this subsection.

Discharge from the ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying concrete pad and spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture could be significant (up to 800 gallons instantaneously).

Discharge from aboveground piping associated with the ASTs or from fuel transfers to/from the ASTs or USTs would flow onto the underlying concrete and asphalt surfaces and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 3,000 gallons/hour).
AFFES Garage, Tank #4587F, 800-gallon Used Oil AST

AFFES Garage, Tank #4587A, 750-gallon Motor Oil AST

AAFES Garage, 55-gallon drum on secondary containment
AFFES Shoppette, Building4706, Pump Island

AFFES Shoppette, Building4706, USTs

AFFES Shoppette, Building4706, Pump Island and Attendant Booth
A.3 DOL GOVERNMENT VEHICLE FUELING STATION (BUILDING 60B)

A.3.1 General
The Directorate of Logistics (DOL) Government Vehicle Fueling Station is located near Building 60B and is the fueling point for government vehicles. This facility is located at the intersection of Remount Road and Rock Avenue. A site diagram is included at the end of this subsection.

A.3.2 Oil Storage and Handling
Four 20,000-gallon USTs, containing gasoline, diesel, and Fuel Oil #2 are present at this facility.

<table>
<thead>
<tr>
<th>Tank Number</th>
<th>Volume (gallons)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>0060B A</td>
<td>20,000</td>
<td>Gasoline</td>
</tr>
<tr>
<td>0060B B</td>
<td>20,000</td>
<td>Diesel</td>
</tr>
<tr>
<td>0060B C</td>
<td>20,000</td>
<td>Fuel Oil #2</td>
</tr>
<tr>
<td>0060B D</td>
<td>20,000</td>
<td>Diesel</td>
</tr>
</tbody>
</table>

One 2,000-gallon fuel truck (mobile refueler) and one Ford F-450 equipped with four portable ASTs (200-gallon capacity, and three at 100-gallon capacity) are filled at this facility and used to deliver fuel throughout FGGM.

<table>
<thead>
<tr>
<th>Bulk Storage Container</th>
<th>Volume (gallons)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Refueler</td>
<td>2,000</td>
<td>Gasoline</td>
</tr>
<tr>
<td>Portable AST F-450</td>
<td>500</td>
<td>Fuel Oil #2</td>
</tr>
<tr>
<td>Portable AST F-450</td>
<td>100</td>
<td>Diesel or Fuel Oil #2</td>
</tr>
<tr>
<td>Portable AST F-450</td>
<td>100</td>
<td>Diesel or Fuel Oil #2</td>
</tr>
<tr>
<td>Portable AST F-450</td>
<td>100</td>
<td>Diesel or Fuel Oil #2</td>
</tr>
</tbody>
</table>

The Government Vehicle Filling Station is open continuously 7 days a week, 24 hours a day. Fuel is dispensed using a Fuelmaster® console that uniquely identifies each user of the system via a plastic token that is inserted into an electronic reader near the dispensers. Gasoline and diesel fuel are delivered by contractor-operated trucks.

A.3.3 Containment and Diversionary Structures
Tanks volumes are monitored remotely via an Automated Tank Gauging (ATG) system that is connected to a panel located in Building 60B. The system is monitored by the BOS Contractor.

The USTs are equipped with a visual and audio alarm system. During hours of operation, supervisory and military personnel are present throughout the facility and would quickly detect any surface discharge should it occur. Such a discharge could happen during bulk resupply operations, automotive fueling (all pumps are self-service). During resupply operations, tank truck operators are required to remain with the trucks during the fuel transfer and would stop refueling should a spill occur. The tanker truck is required to park within the refueling area berm during refuel operations. Any product spilled during the fueling operation would flow the oil water separator located on site. An emergency shutoff switch is located outside of building 60B.

The DOL Government Vehicle Fueling Station has a containment pad for commercial tank trucks. The pad is curbed on four sides and sloped to direct any spilled or leaked fluids into a grated sump. The grated sump has a containment capacity of 1,500 gallons.
A.3.4 Drainage and Oil Discharge Prediction

Drainage from the Government Vehicle Fueling Station is generally by sheet flow to storm drains. The storm drains empty into Midway Branch. A site diagram indicating drainage pathways is included at the end of this subsection.

Discharge from the USTs would flow into the integral secondary containment and be detected by the interstitial monitoring system. Discharge from fuel transfers would flow onto the underlying concrete surface and enter the containment sump. The rate of flow associated with a discharge from fuel transfers is moderate (up to 3,000 gallons/hour).
Government Vehicle Filling Station, Building 60B, Concrete berm and collection to Oil/Water Separator.

Government Vehicle Filling Station, Building 60B, Concrete berm and collection to Oil/Water Separator.

Government Vehicle Filling Station, Building 60B, Emergency shut off under red sign and phone.
A.4 DEFENSE INFORMATION SYSTEMS AGENCY (DISA) (BUILDING 6906)

A.4.1 General
The Defense Information System Agency (DISA) facility is located on the eastern side of the Fort George G Meade golf course, bordered by Rockenbach Road to the north, Cooper Avenue to the east, and Mapes Road to the south. The DISA facility covers approximately 93 acres and primarily consists of a secure multi-story facility totaling 1,110,500 gross square feet.

A.4.2 Oil Storage and Use
Emergency power is provided by seven (2) 2,500 kilowatt (KW), 480/277 volt, 3-phase, 4-wire diesel generators. Each emergency power generator is equipped with a 600-gallon integral AST. The emergency power generators are also fueled by three 15,000-gallon ASTs.

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Tank Number</th>
<th>Capacity (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6906</td>
<td>Emergency Generator 600</td>
<td></td>
</tr>
<tr>
<td>6906</td>
<td>Emergency Generator 600</td>
<td></td>
</tr>
<tr>
<td>6906</td>
<td>FOT-1 15,000</td>
<td></td>
</tr>
<tr>
<td>6906</td>
<td>FOT-2 15,000</td>
<td></td>
</tr>
<tr>
<td>6906</td>
<td>FOT-3 15,000</td>
<td></td>
</tr>
</tbody>
</table>

A.4.3 Containment and Diversionary Structures
The emergency generator ASTs are of double-walled steel construction. The three 15,000-gallon ASTs are of double-walled steel construction with high-liquid level alarms and interstitial monitoring.

A tank truck containment pad is present at the location where the tank truck would park for transferring fuel to the three 15,000-gallon ASTs. The pad is curbed and sloped to a grated sump.

A.4.4 Drainage and Oil Discharge Prediction
A site diagram indicating drainage pathways is included at the end of this subsection.

Discharge from the ASTs or the emergency generator ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying graveled surface and infiltrate/spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture could be significant (up to 15,000 gallons instantaneously).

Discharge from aboveground piping associated with the ASTs or from fuel transfers to/from the ASTs would flow onto the underlying asphalt or grassed surface and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 200 gallons/hour).

A valve is closed during fuel transfer operations preventing a spill from entering the stormwater system.
A.5  DEFENSE MEDIA ACTIVITY (DMA) (BUILDING 6702)

A.5.1  General
The Defense Media Activity (DMA) facility’s mission is to support the DoD’s publications of various media including Soldier Magazine, the Army Print/Web, and daily television-video productions. The DMA facility is a 57,885 square foot structure with a variety of office and technical operating centers as well as a multipurpose warehouse and vehicle storage area.

A.5.2  Oil Storage and Use
Emergency power is provided by a 2,500 kilowatt (KW) diesel generator equipped with a 500-gallon integral AST. The emergency power generator is fueled by a 10,000-gallon aboveground storage tank (AST).

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Tank Number</th>
<th>Capacity (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6702</td>
<td>Emergency Generator AST</td>
<td>500</td>
</tr>
<tr>
<td>6702</td>
<td>AST</td>
<td>10,000</td>
</tr>
</tbody>
</table>

A.5.3  Containment and Diversionary Structures
The emergency generator AST is of double-walled steel construction. The 10,000-gallon AST is of double-walled steel construction with a high-liquid level alarm and interstitial monitoring.

A.5.4  Drainage and Oil Discharge Prediction
A site diagram indicating drainage pathways is included at the end of this subsection.

Discharge from the ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying concrete surface or grassed surface and spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture could be significant (up to 10,000 gallons instantaneously).

Discharge from aboveground piping associated with the ASTs or from fuel transfers to/from the ASTs would flow onto the underlying asphalt or grassed surface and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 200 gallons/hour).
A.6 HEATING OIL TANKS (VARIOUS BUILDINGS)

A.6.1 General

ASTs ranging in capacities up to 1,000 gallons are in use throughout FGGM for the storage of heating oil. A site diagram is included at the end of this subsection.

A.6.2 Oil Storage and Use

Heating oil tanks at FGGM include the following.

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Tank Number</th>
<th>Capacity (gallons)</th>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>0004A</td>
<td>500</td>
</tr>
<tr>
<td>3900</td>
<td>3900A</td>
<td>1,000</td>
</tr>
</tbody>
</table>

The heating systems are usually operated by the building custodian or facility manager. The heating oil ASTs are visually inspected on a regular basis as part of routine operational checks that are performed on various building mechanical systems by these individuals. The ASTs are filled on an as-needed basis by the BOS contractor. The personnel filling the ASTs visually inspect the AST and associated piping prior to commencing fuel transfer operations.

A.6.3 Containment and Diversionary Structures

All heating oil tanks are of double-walled steel or fiberglass-clad steel in concrete construction. These tanks are fitted with interstitial monitors and audible high-liquid level alarms. The tanks are filled by a mobile refueler operated by the BOS Contractor. The tanks are usually situated adjacent to the building they support. Piping runs between the tanks and the buildings run above ground for the ASTs and below ground for the UST.

A.6.4 Drainage and Oil Discharge Prediction

Drainage from areas with heating oil ASTs will depend on the topography and man-made drainage features in the vicinity of the ASTs. A site diagram is included at the end of this subsection.

Discharge from the ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying concrete or grassed surface and spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture is dependent on the AST capacity and could be significant (up to 1,000 gallons instantaneously).

Discharge from aboveground piping associated with the heating oil ASTs (running to/from the associated buildings) or from fuel transfers to/from the ASTs would flow onto the underlying concrete or grassed surface and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 200 gallons/hour).
A.7 EMERGENCY GENERATOR TANKS (VARIOUS BUILDINGS)

A.7.1 General
Various ASTs ranging in capacity from 60 gallons to 2,000 gallons of diesel fuel are integral (i.e., belly tanks) to emergency generators that are in use throughout FGGM. A site diagram is included at the end of this subsection.

A.7.2 Oil Storage and Use
Emergency generator ASTs at FGGM include the following.

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Tank Number</th>
<th>Capacity (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>-</td>
<td>255</td>
</tr>
<tr>
<td>601</td>
<td>-</td>
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</tr>
<tr>
<td>902</td>
<td>-</td>
<td>250</td>
</tr>
<tr>
<td>1978</td>
<td>1978B</td>
<td>300</td>
</tr>
<tr>
<td>1978</td>
<td>1978C</td>
<td>500</td>
</tr>
<tr>
<td>2257</td>
<td>2257A</td>
<td>275</td>
</tr>
<tr>
<td>2258</td>
<td>2258A</td>
<td>275</td>
</tr>
<tr>
<td>2282</td>
<td>#1</td>
<td>88</td>
</tr>
<tr>
<td>2282</td>
<td>#2</td>
<td>88</td>
</tr>
<tr>
<td>2282</td>
<td>#3</td>
<td>88</td>
</tr>
<tr>
<td>2480</td>
<td>2480B</td>
<td>100</td>
</tr>
<tr>
<td>2600</td>
<td>#1</td>
<td>800</td>
</tr>
<tr>
<td>2600</td>
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<td>#3</td>
<td>800</td>
</tr>
<tr>
<td>3900</td>
<td>3900A</td>
<td>60</td>
</tr>
<tr>
<td>4407</td>
<td>4407A</td>
<td>1,000</td>
</tr>
<tr>
<td>4550</td>
<td>-</td>
<td>500</td>
</tr>
<tr>
<td>4551</td>
<td>4551A</td>
<td>300</td>
</tr>
<tr>
<td>4552</td>
<td>#1</td>
<td>230</td>
</tr>
<tr>
<td>4552</td>
<td>#2</td>
<td>575</td>
</tr>
<tr>
<td>4553</td>
<td>-</td>
<td>800</td>
</tr>
<tr>
<td>6702</td>
<td>-</td>
<td>500</td>
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<tr>
<td>6906</td>
<td>#1</td>
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<tr>
<td>6906</td>
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<td>600</td>
</tr>
<tr>
<td>8543</td>
<td>-</td>
<td>850</td>
</tr>
<tr>
<td>9829</td>
<td>9829A</td>
<td>2,000</td>
</tr>
<tr>
<td>-</td>
<td>RG-1</td>
<td>250</td>
</tr>
</tbody>
</table>

The emergency generator systems are usually operated by the building custodian or facility manager. The emergency generator ASTs are visually inspected on a regular basis as part of routine operational checks. The ASTs are filled on an as-needed basis by the BOS contractor or

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SPCC Plan
USACE Baltimore District
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other independent source. The personnel filling the ASTs visually inspect the AST and associated piping prior to commencing fuel transfer operations.

**A.7.3 Containment and Diversionary Structures**

All emergency generator ASTs are of double-walled steel construction. The ASTs are integral to the emergency generators they support. The ASTs are filled by a mobile refueler operated by the BOS Contractor on an as-needed basis.

**A.7.4 Drainage and Oil Discharge Prediction**

Drainage from areas with heating oil ASTs will depend on the topography and man-made drainage features in the vicinity of the ASTs. A site diagram is included at the end of this subsection.

Discharge from the ASTs would flow into the integral secondary containment. A discharge outside the AST containment would flow onto the underlying concrete or grassed surface and spread laterally. The rate of flow associated with a discharge from a catastrophic tank and secondary containment system rupture is dependent on the AST capacity and could be significant (up to 1,000 gallons instantaneously).

Discharge from aboveground piping associated with the heating oil ASTs (running to/from the associated buildings) or from fuel transfers to/from the ASTs would flow onto the underlying concrete or grassed surface and spread laterally. The rate of flow associated with a discharge from fuel transfers is moderate (up to 200 gallons/hour).
### SPCC PLAN CROSS-REFERENCE WITH 40 CFR 112

<table>
<thead>
<tr>
<th>40 CFR 112</th>
<th>Plan Reference</th>
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<tbody>
<tr>
<td>112.1</td>
<td>Sections 1.1 and 1.2</td>
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<td>Definitions</td>
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<td>112.3</td>
<td>Management Approval and PE Certification page</td>
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<td>112.4</td>
<td>Section 1.3</td>
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<td>112.5</td>
<td>Amendment, Review and Evaluation page</td>
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<td>Section 4.0, Appendix A</td>
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<tr>
<td>112.7 (c)</td>
<td>Section 3.0, Appendix A</td>
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<td>112.7 (e)</td>
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<tr>
<td>112.7 (h)</td>
<td>Section 5.4</td>
</tr>
<tr>
<td>112.7 (i)</td>
<td>NA</td>
</tr>
<tr>
<td>112.7 (j)</td>
<td>Section 1.4, Appendix C</td>
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<tr>
<td>112.7 (k)</td>
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</tr>
<tr>
<td>112.8 (a)</td>
<td>Entire Plan</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>112.8 (b)</td>
<td>Section 4.2, Appendix A</td>
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<td>112.8 (c)(1) and (c)(2)</td>
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<tr>
<td>112.8 (c)(9)</td>
<td>Section 4.1, Appendix A</td>
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<tr>
<td>112.8 (c)(10)</td>
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<td>112.8 (c)(11)</td>
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<td>112.8 (d)</td>
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<td>112 Appendix C II</td>
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</tr>
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Appendix C
Non-conformances and Corrective Actions
NON-CONFORMANCES WITH 40 CFR 112

40 CFR 112.7(a)(1) requires that “a discussion of your facility’s conformance with the requirements listed in this part” be included in this SPCC Plan. As noted in this SPCC Plan, the facility fully conforms to the requirements of 40 CFR 112 et seq. and this SPCC Plan with the exception of the non-conformance(s) noted as of the date of the last revision of this SPCC Plan as listed in the table below. The specific 40 CFR 112 et seq. requirement, the non-conformance, the corrective action, a schedule for resolution, and a signature line for noting the resolution date is provided. Any changes and/or updates made at the facility or to this SPCC Plan must be noted as amendments to this SPCC Plan in accordance with the Review and Amendment page.

<table>
<thead>
<tr>
<th>Requirement and Non-conformance</th>
<th>Corrective Action and Schedule for Resolution</th>
<th>Resolution Signature Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
<td>Corrective Action</td>
<td>I certify that the noted non-conformance was resolved on or before the signature date listed below.</td>
</tr>
<tr>
<td>40 CFR 112.8(c)(8)(i) requires that high liquid-level alarms be equipped with an audible or visual signal at a constantly attended operation or surveillance station.</td>
<td>Review all liquid-level alarm systems for proper operation and repair liquid-level alarm systems accordingly.</td>
<td>Signature: ___________________________</td>
</tr>
<tr>
<td>Non-conformance</td>
<td>Schedule for Resolution</td>
<td>Name: _______________________</td>
</tr>
<tr>
<td>The high liquid-level alarm systems on numerous ASTs located throughout FGGM that monitor high liquid-levels and the presence/absence of liquids in the interstitial space between the inner and outer tanks are malfunctioning and/or nonoperational.</td>
<td>As soon as practical following implementation of this SPCC Plan.</td>
<td>Title: ________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date: _________________________</td>
</tr>
</tbody>
</table>

Signature: ___________________________
Name: _____________________________
Title: ______________________________
Date: _____________________________
<table>
<thead>
<tr>
<th>Requirement and Non-conformance</th>
<th>Corrective Action and Schedule for Resolution</th>
<th>Resolution Signature Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
<td>Corrective Action</td>
<td>I certify that the noted non-conformance was resolved on or before the signature date listed below.</td>
</tr>
<tr>
<td>40 CFR 112.7(e) requires that inspections and tests required be conducted in accordance with written procedures. Records of inspections, signed by the appropriate inspector or their supervisor, are to be kept for a period of 3 years.</td>
<td>Conduct visual inspections and integrity testing. Document the inspections and tests in accordance with the procedures established in this SPCC Plan.</td>
<td>Signature: ____________________________</td>
</tr>
<tr>
<td>40 CFR 112.8(c)(6) requires that each aboveground container be tested for integrity on a regular schedule and whenever repairs are made. The frequency of and type of testing must take into account container size and design. Visual inspection must be combined with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emission testing, or another system of non-destructive testing. Container supports and foundations must be inspected. The outside of containers must be frequently inspected for signs of deterioration, discharges, or accumulation of oil inside containment. Records of inspections and tests are to be kept under usual and customary business practices.</td>
<td>Schedule for Resolution</td>
<td>Name: _______________________________</td>
</tr>
<tr>
<td>Non-conformance</td>
<td></td>
<td>Title: ________________________</td>
</tr>
<tr>
<td>Visual inspections are not consistently conducted and/or documented on a monthly basis. Records of integrity testing are not available.</td>
<td></td>
<td>Date: ______________________________</td>
</tr>
</tbody>
</table>

Fort George G. Meade, Maryland  
SPCC Plan  
USACE Baltimore District  
September 2012  
THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED: for the latest version of this document, contact DPW-ED at 301-677-9648
<table>
<thead>
<tr>
<th>Requirement and Non-conformance</th>
<th>Corrective Action and Schedule for Resolution</th>
<th>Resolution Signature Line</th>
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<tbody>
<tr>
<td>Requirement</td>
<td>Corrective Action</td>
<td>I certify that the noted non-conformance was resolved on or before the signature date listed below.</td>
</tr>
<tr>
<td></td>
<td>Conduct and document training on this</td>
<td>Signature: __________________</td>
</tr>
<tr>
<td></td>
<td>SPCC Plan in accordance with the procedures</td>
<td>Name: ______________________</td>
</tr>
<tr>
<td></td>
<td>established in this SPCC Plan. Conduct</td>
<td>Title: _____________________</td>
</tr>
<tr>
<td></td>
<td>annual oil discharge prevention briefings</td>
<td>Date: _____________________</td>
</tr>
<tr>
<td></td>
<td>in accordance with the procedures established</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in this SPCC Plan.</td>
<td></td>
</tr>
<tr>
<td>Non-conformance</td>
<td>Schedule for Resolution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As soon as practical following</td>
<td></td>
</tr>
<tr>
<td></td>
<td>implementation of this SPCC Plan.</td>
<td></td>
</tr>
</tbody>
</table>

40 CFR 112.7(f) requires that the facility train all oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.

Additionally, all facility personnel who handle oil are required to be provided with oil discharge prevention briefings addressing the above training at least once each year to assure adequate understanding of this SPCC Plan. These oil discharge prevention briefings are to highlight and describe any known discharges or failures, malfunctioning components, and recently developed precautionary measures.

Training of facility oil-handling personnel and discharge prevention briefings have not been conducted and/or documented.
Appendix D
Installation On-Scene Coordinators (IOSCs) and Initial Response Teams (IRTs)
Installation On-Scene Coordinator / Qualified Individual

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tejbir J. Singh</td>
<td>Director, DPW</td>
<td>(301) 677-9141</td>
</tr>
</tbody>
</table>

Alternate Installation On-Scene Coordinator / Qualified Individual

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Butler</td>
<td>Chief, DPW Environmental Division</td>
<td>(301) 677-9188</td>
</tr>
</tbody>
</table>

Facility-specific Spill Coordinators

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Frechette</td>
<td>DPW Recycling Center</td>
<td>(301) 677-9674</td>
</tr>
<tr>
<td>Jesse Crews</td>
<td>DPW Government Vehicle Filling Station</td>
<td>(301) 677-4510</td>
</tr>
<tr>
<td>Tom Gummer</td>
<td>AAFES Garage</td>
<td>(410) 672-3228</td>
</tr>
<tr>
<td>Don Ulrich</td>
<td>DMA (6702)</td>
<td>(301) 222-6051</td>
</tr>
<tr>
<td>Mark McGurkin</td>
<td>DMA (6906)</td>
<td>(301) 225-1045</td>
</tr>
</tbody>
</table>

Initial Response Teams (IRTs)

DPW ED personnel as assigned by Chief DPW ED.
Appendix E
Inspection Checklists and Forms
# Monthly Aboveground Tank Inspection Checklist

| Date ___________________________ | X = Satisfactory |
| Time ___________________________ | NA = Not Applicable |
| Inspector _______________________ | O = Repair or Adjustment Required |
|                                | C = See comment under |
|                                | Remarks / Recommendations |

### ASTs
- ___ Interstitial space (space between inner and outer wall of double-walled tanks) is dry
- ___ Tank surfaces checked for signs of leakage.
- ___ Tank condition good (no rusting, corrosion, pitting).
- ___ Bolts, rivets, or seams are not damaged.
- ___ Tank foundation intact
- ___ Level gauges and alarms working properly.
- ___ Vents are not obstructed.
- ___ Valves, flanges, and gaskets are free from leaks.
- ___ Containment walls are intact.

### Truck Loading / Unloading Area
- ___ No standing water in rack area.
- ___ Warning signs posted.
- ___ No leaks in hoses.
- ___ Drip pans not overflowing.
- ___ Catch basins free of contamination.
- ___ Containment curbing or trenches intact.
- ___ Connections are capped or blank-flanged

### Security
- ___ Fence and gates intact.
- ___ Gates have locks.
- ___ ASTs locked when not in use.
- ___ Starter controls for pumps locked when not in use.
- ___ Lighting is working properly.

### Pipelines & Drainage
- ___ Any noticeable oil sheen on runoff.
- ___ No signs of corrosion damage to pipelines or supports.
- ___ Buried pipelines are not exposed.
- ___ Out-of-service pipes capped.
- ___ Signs/barriers to protect pipelines from vehicles are in place.
- ___ No leaks at valves, flanges, or other fittings.

### Training
- ___ Spill prevention briefing held.
- ___ Training records are in order.

### Remarks/Recommendations
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
This page intentionally left blank.
## Certified Tank Inspection Report

<table>
<thead>
<tr>
<th>Inspector Name</th>
<th>Date __________________</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phone __________________</td>
</tr>
<tr>
<td></td>
<td>FAX __________________</td>
</tr>
<tr>
<td>Company</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank Owner’s Name</td>
<td>Phone _________________</td>
</tr>
<tr>
<td>Tank Location</td>
<td>FAX __________________</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank Dimensions</td>
<td>Capacity ________ gallons</td>
</tr>
<tr>
<td>Product(s) Stored</td>
<td></td>
</tr>
</tbody>
</table>

### Type tank (check all that apply):
- Single wall
- Double wall
- Tank contact with ground
- Not in contact with ground
- Horizontal
- Vertical
- Tank equipped with manway
- Tank not equipped with manway
- Secondary containment
- Rectangular
- Cathodic protection installed

### Inspection Requirements

<table>
<thead>
<tr>
<th>Item to check</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Water in tank(s)</td>
<td></td>
</tr>
<tr>
<td>Tank interstice, Leak detection</td>
<td></td>
</tr>
<tr>
<td>Pipe Connections</td>
<td></td>
</tr>
<tr>
<td>Exterior</td>
<td></td>
</tr>
<tr>
<td>Vents, Emergency Vents, Spill Containers</td>
<td></td>
</tr>
<tr>
<td>Site Drainage</td>
<td></td>
</tr>
<tr>
<td>Emergency Vent O-rings or Gaskets</td>
<td></td>
</tr>
<tr>
<td>Tank Supports</td>
<td></td>
</tr>
<tr>
<td>Tank Foundation</td>
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</tr>
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</table>
## Tank Integrity Report

### Tank Tightness Testing

<table>
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<tr>
<th>Type of test(s) performed</th>
<th>Pressure</th>
<th>Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary tank pressure test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary tank pressure test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interstice vacuum test</td>
<td></td>
<td></td>
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</tbody>
</table>

### Cathodic Protection Testing
(for tanks so equipped)

<table>
<thead>
<tr>
<th>System Type</th>
<th>Testing Interval</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacrificial anode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impressed current</td>
<td>(circle one)</td>
<td></td>
</tr>
</tbody>
</table>

Next Certification Tank Inspection Recommendation:

- [ ] One Year
- [ ] 5 Years
- [ ] 10 Years

Explain if other than 10 years: ______________________________________________________
_______________________________________________________________________________

Test Performed (reference Section No.)

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Results

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Recommendations

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Supervisor or Inspector Signature ______________________________________________
# Secondary Containment Drainage Inspection Form

<table>
<thead>
<tr>
<th>Individual’s Name and Signature:</th>
<th>______________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of Activity:</td>
<td>______________________________</td>
</tr>
<tr>
<td>Date and Time of Activity:</td>
<td>______________________________</td>
</tr>
</tbody>
</table>

1. **Volume of accumulated water released?**

2. **Is there visible oil (hydrocarbon) sheen?**

3. **Are there any other signs of contamination?**

4. **Is the drain port secured following activity?**
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Appendix F
Guidance on Cleanup Methods and Techniques
GUIDANCE ON CLEANUP METHODS AND TECHNIQUES

F-1  **General Effects of Habitat Exposure to Oil** - Field and laboratory evidence has demonstrated both acute lethal toxicity and long term sub lethal toxicity of oils to aquatic organisms. Effects other than direct toxicity also have been documented. Oils of any kind can cause:

- drowning of waterfowl because of loss of buoyancy, exposure because of loss of insulating capacity of feathers, and starvation and vulnerability to predators because of a lack of mobility;
- lethal effects on fish by coating epithelial surfaces of gills, thus preventing respiration;
- potential fish kills due to increased biochemical oxygen demand;
- asphyxiation of benthic life, when floating masses become engaged with surface debris and settle on the bottom; and
- adverse aesthetic effects of fouled shorelines and beaches.

The deleterious effect of oils on fish is due to a film formed over the gill filaments, which prevents the exchange of gasses and results in suffocation. Free oil and emulsions may coat and destroy algae and other plankton. Heavy coatings of free oil on the surface may interfere with the natural processes of re-aeration and photosynthesis, while light coatings would be less detrimental, because water turbulence would maintain adequate re-aeration. Water-soluble components of the oil may exert a direct toxic action. Tainting of fish flesh and other aquatic organisms may occur.

The effects of oil on birds depend upon a variety of factors, including the type of oil, extent of contamination of plumage, temperature of the air and water, and the quantity of oil ingested. Migratory fowl are affected indirectly by deposits of oil on the bottom, in shallow water, or along the shore that may reduce the available food supply of both plants and animals.

Elements within the food chain are eliminated by chemical or physical properties of the oils and food for waterfowl may become unavailable by being overlaid or embedded in the oily materials. Accumulation of petroleum sludge may also prevent germination and growth of plants and the production of invertebrates important as food, either by smothering or by toxic effects.

Oil causes matting of duck feathers so that ducks become waterlogged, lose their ability to fly, and drown, if they cannot get out of the water soon enough. Oil breaks down the insulating power of the feathers; body heat and stored reserves of energy are rapidly lost. Diving ducks may starve, and following the preening of oil from contaminated feathers, bleeding ulcers may be produced in the digestive tract, causing mortality.

Oil pollutants may become incorporated into sediments. There is evidence that once this occurs in the sediments below the aerobic surface layer, petroleum can remain unchanged and toxic for long periods, since the rate of bacterial degradation is slow. Number 2 fuel oil
incorporated into sediments following a spill were found to persist for over a year, and even began spreading in the form of oil-laden sediments to more distant areas that had remained unpolluted immediately after the spill. The persistence of un-weathered oil within the sediments could have a long-term effect on the structure of the bottom organism community or cause the demise of specific sensitive important species. For example, JP-5 is less persistent than fuel oil, but the toxicity to exposed fish and wildlife is severe, where concentrations occur.

The U.S. Environmental Protection Agency has reported the toxicity of kerosene (turbine fuel) to be very severe on larvae and eggs of fish. Toxicity was observed at 0.1 parts per million. For bottom associated fish food organisms, the toxicity of kerosene was 5 parts per million (5 parts of kerosene in 1,000,000 parts of water). Gasoline was toxic to some fish at 40 parts per million. The growth rate of algae was significantly reduced in a concentration of 3 parts per million kerosene. Larval rainbow trout have been killed in 2 parts per million kerosene, as well as in the same concentration of diesel fuel. Eggs of some fish, when exposed to 0.01 parts per million oil were found to have irregularity and delay in hatching, and the resultant larvae were deformed and inactive.

**Wetlands**

- Light, refined fuels have the highest acute toxicity to wetland vegetation of all oils.
- Vegetation will be coated with oil when exposed, although light fuels do not form thick coats. Light fuels, will evaporate completely, leaving no residue on the vegetation. Diesel will leave a harmful film.
- Lighter fuels penetrate soils rapidly, especially if the soils are sandy. If sediment contamination from diesel fuel occurs, the oil can persist for decades.
- The season a spill occurs can affect the nature and duration of the impact. Oiling during the dormant winter season has the lowest impact, whereas oiling during the summer months, when plant resources are expended, has the longer-term impact.

**Soil**

- Petroleum products that become combined with soils or sediments (land, water, or wetlands) will persist for long periods. Stream bed records have shown persistence for over a year. In some soil types, persistence may encompass a decade.
- In flat, sandy soils, oil may percolate rapidly to the water table, where it can discharge to a stream or wetland that is nearby.

**Vegetation**

- Light, refined products have high acute toxicities to terrestrial vegetation.
- Of greatest concern is the persistence and effects of fuels penetrating coarse sediments along stream beds. Contaminated groundwater can affect vegetation, by various
methods: through its uptake by plant root systems and the coating of the plants with surface sheen.

Groundwater

- Under permeable sandy soils, contamination of groundwater by spills is very likely, both as a layer of product on the water table and as a dissolved plume in the groundwater.
- Under clayey soils, contamination of groundwater by spills is not as likely. Clay soils often are impermeable.
- Contaminated groundwater will persist. It will be released, if there is a surface water discharge point.

Fish

- Depending upon the season that a spill occurs, adult fish are considered at moderate risk to oil spills.
- Because of their use of shallow-water habitats, many juvenile fish are at moderate-to-high risk of exposure during an oil spill. Many juveniles, because of their dependency on shallow, nearshore nursery areas are likely to be exposed to toxic concentrations of spilled petroleum products that occur in or near these areas.
- The eggs and larvae of fish are the most sensitive of all the life stages to spilled petroleum products, because they are unable to avoid the product and because younger stages are more vulnerable to toxic products.
- Eggs laid on substrates are likely to experience severe toxic effects from a petroleum spill.
- Benthic-feeding adults and juveniles may consume contaminated sediment and the long-life of the adult may allow for bioaccumulation of petroleum hydrocarbons.
- Long-term exposure to petroleum products can produce sub lethal effects in fish by altering behavior, growth, and physiology. The changes include an increase in oxygen consumption, and a reduction in activity, locomotion, feeding, and growth rate.

Birds

- Waterfowl are highly vulnerable to petroleum products, because they spend most of their lives on the open water, diving for food and forming large flocks while roosting on the water.
- Although bald eagles rarely enter the water, and would, therefore, not come in direct contact with the oil, they are considered highly susceptible to the toxicity effects, because of their potential for scavenging oiled prey.
• Bald eagles and other raptors, along with waterfowl, readily ingest oil during preening or by consuming oiled prey. The effects of ingested oil includes anemia, pneumonia, intestinal irritation, kidney damage, altered blood chemistry, decreased growth, impaired osmoregulation, and decreased production and viability of eggs.

• Bird eggs are highly susceptible to oil, and survival numbers decrease as direct oil exposure increases. In addition, adult females that have ingested sub lethal doses of oil may produce fewer eggs or cease laying eggs altogether.

F-2 Persistence - Evaporation of the toxic soluble portions of refined products will occur within the first several days after a spill. However, the evaporation rate in narrow creeks and rivers will be slower than in open water, because the shore boundary restriction prevents spreading, therefore causing a thicker oil layer, which takes longer to evaporate.

Generally, persistence of oils increases when:

• temperatures decrease
• there is less water turbulence and wave action
• the viscosity of the oil is higher
• oils are combined with soils and sediments

F-3 Spill Response on Land - Containment operations must always be carried out to prevent product from entering water supplies, drains, sewage systems, pipe and cable ducts, or other critical areas. In most instances it would be better for a larger surface spread on land than to allow product to enter a surface water system. This will have to be determined when such situations arise.

The product can be trapped in ditches and gullies by earth dams. Where excavating machinery is available, dams can be bulldozed to contain lakes of product. Dams, small and large, should be effectively employed to protect priority areas such as inlets to drains, sewers, ducts, and watercourses. These can be constructed of earth, sandbags, absorbents, planks or any other effective method. Thin layers of product on land can be contained by using an absorbent. However, the use of absorbents on land should be restricted to priority areas due to the expense and disposal problems. If time does not permit a large dam, many small ones can be made, each one holding a portion of the spill as it advances. The terrain will dictate the placement of the dams. If the spill is minor, natural dams or earth absorption will stop the product before it advances a significant distance. Clean-up is the main concern in such situations.

In situations where vapors from a spill present a clear and present danger to property or life (possible ignition because of passing automobiles, nearby houses, or work vehicles approaching the area), spraying the surface of the spill with dispersant will greatly reduce the release of additional vapors from the product. This method is especially adapted to gasoline spills on soil surfaces.
Removal Methods

• The recovery and removal of product from soil surface are difficult jobs. The best approach at present seems to be:

• Removal with suction equipment to tank truck if concentrated in volumes large enough to be picked up. Channels can be formed to drain pools of product into storage pits so that suction equipment can then be used.

• Small pockets may have to be dipped up by hand.

• If practicable after removal of the bulk of the spill, burning presents the possibility of a fast, simple, and inexpensive method of destruction of the remainder of the product. The main requirements for using burning as a method of clean-up are:

• There must be no danger of fire spreading, directly or through secondary effects, beyond set limits.

• All personnel, animals, equipment, and property must be at a safe distance from the edge of the inflammable area.

• The amounts of smoke and smut will be acceptable to applicable governmental agencies.

• The burning will not affect restoration of the pipeline.

• Applicable authorities are notified and approval granted.

• If burning is not permitted, and after the removal of all the product possible by other methods, evaporation may be the best solution for the elimination of a spill, especially gasoline.

F-4 Spill Response on Water — Although a leak usually will occur on land first, in some instances product can reach surface waters.

Spill on Lake or Pond (calm or slow-moving water) Containment Methods

• A lake or pond offers the best conditions for removal of product from water, because it presents the favorable conditions of low or no current and low or no waves.

• The movement of product on a lake or pond is influenced mainly by wind. The product will tend to concentrate on one shore, bank, or inlet. Booms should be set up immediately to hold the product in the confined area in the event of a change in wind direction. See Diagrams 1 and 2.
• If the spill does not concentrate itself on or near a shore (no wind effect), then a sweeping action using boats and floating booms will be necessary. The essential requirement for this operation is that it be done very slowly. The booms should be moved at not more than 40 feet per minute. Once the slick is moved to a more convenient location (near shore), the normal operations of removal should be done. See Diagram 3.

• If the slick is small and thin (rainbow effect) and not near the shoreline, an absorbent boom instead of a regular boom should be used to sweep the area very slowly and absorb the slick. The product may not have to be moved to the shoreline.
Spill on Lake or Pond Removal Methods

- If the confined slick is thick enough, regular suction equipment may be used first; however, in most instances a floating skimmer should be employed. If judged appropriate or useful, a surface-collecting agent should be applied once the slick is isolated to facilitate the removal. The surface-collecting agent will concentrate the product into a smaller area and make the floating skimmer work more efficiently.

- If the floating skimmer starts picking up excess water (slick becomes thin), do not stop using it if it is removing any appreciable amount of product. The receiving tank truck or other container can release the separated water from the bottom of the tank back into the lake inside the boomed area. Additions of more surface-collecting agent from time to time may improve the skimming efficiency of the skimmer. It will continue to concentrate the slick into a smaller area, thus making the film thickness greater. Drawing the boom closer to the bank as product is removed will also keep film of product thicker. However, when the slick becomes too thin, the skimmer should be stopped and an absorbent applied (with a boat if necessary) to remove the final amounts.

- The floating skimmer (if speed is a must) or hand skimmers (if water is shallow enough) or both can be used to pick up the product-soaked absorbent. Before pumping the product-soaked absorbent with a floating skimmer, insure that the absorbent in question can be pumped and will not harm the pump. If the floating skimmer is used first, the product-soaked absorbent/water mixture should be pumped into a tank truck. The contents of the tank truck would have to be buried at an acceptable site. This method of product-soaked absorbent removal should be used only when boom can be used to bring the absorbent to the banks.

- A better method of retrieving the product-soaked absorbent is to draw it in as close to the shore as possible with the booms used to confine the product initially. The
absorbent can then be hand skimmed from the water surface and placed on plastic sheets. It should then be buried or burned at an acceptable site.

- The final rainbow sheen on the surface can be removed with additions of more absorbent. See Diagrams 4 and 5 for details of cleanup of product from lake and pond surfaces.

**Diagram 4**

**How do I pick it up after it is contained and/or absorbed?**

1. Use a vacuum truck
2. Floating pump type skimmer discharging into tank truck
3. Hand skimming product soaked absorbents.

**Diagram 5**

**Spill on small to medium size streams confinement methods**

- The techniques used for product containment on fast-flowing shallow streams are quite different from ones used on lakes, ponds, or other still bodies of water. Containment and removal processes require a calm stretch of water to allow the product to separate onto the surface of the water. If a calm stretch of water does not exist naturally, a deep slow-moving area can be created by damming. The dam can be constructed by using sandbags, planks, or earth. If a dam is required, it should be situated at an accessible
point with high enough banks. The dam must be constructed soundly and reinforced to support the product and water pressure.

**Underflow Dam**

- The underflow dam is one method that can be used, especially on small creeks. The water is released at the bottom of the dam using a pipe or pipes which are laid during construction of the dam. The flow rate through the pipe must be sufficient to keep the dam from overflowing. One method is to lay the pipe at an angle through the dam (while dam is being constructed) so that the height of the downstream end of the pipe will determine the height the water will rise behind the dam. See Diagram 6A.

![Diagram 6A: Underflow Dams](image)

- A variation of the above method is to use a pipe with an elbow at one end. The pipe should be placed in the dam (while dam is being constructed) at an appropriate level. The elbow can provide for better separation of the product. See Diagram 6B.

![Diagram 6B: Underflow Dams](image)

- Another method used with the underflow dam is having the pipe or pipes sized to carry only a portion of the flow needed. The pipe would be placed at the bottom of the dam and level with the creek bed. The remaining flow of the creek could be siphoned or
preferably pumped around the dam from a point away from the dam and from the deepest portion of the pool. The pumping or siphoning can be controlled to maintain the desired water level at the dam. The key is the removal of water through or around the dam at the lowest point in the basin. This prevents the oil from escaping with the released water. See Diagram 6C.

Overflow Dam

- Another method of containment is the overflow type dam. The dam is constructed so that water flows over the dam, but a deep pool is created which slows the surface velocity of the water. Therefore, the condition of a calm stretch of water is met. The overflow dam may be used where larger flow rates (medium-size creeks) of water are involved.

- With this type dam, a separate barrier (floating or stationary boom) must be placed across the pool created by the dam. The separate barrier arrests the surface layer of product. At the same time, the water is flowing under the barrier and over the top of the dam. The barrier should be placed at an angle of 45° across the pool to decrease the effective water velocity beneath it. Also, it helps to concentrate the product at the bank and not all along the barrier. A second barrier should be placed approximately 10 to 15 feet downstream of the first one as a secondary back-up.

- The stationary boom type barrier should be made of planks or other suitable material; 111 x 811 or 1" x 10" planks are ideal. The stationary boom should be soundly
constructed and sealed against the bank. The ends of the planks can be buried in the banks of the, stream and timber stakes driven into the stream bed for support as needed. The necessary length of the boom will be approximately 1-1/2 times the width of the waterway. The plank boom should extend six to eight inches deep into the water and about two inches or higher above the water level. If the increase in velocity under the stationary boom is causing release of trapped product, it should be moved upward slightly.

- At no time should the barrier be immersed more than 20% of the depth of the pool at the barrier location; that is, if the pool created by damming is 3 feet deep, do not exceed an immersion depth of 7 inches with the barrier at the position the barrier is installed. See Diagrams 7 and 8 for details.

- A floating boom can be used in place of the stationary type if the created pool's size (bank to bank) and depth will permit. Since changing the depth and/or length of a standard floating boom in a small stream is difficult, the use of the stationary type permits adjustments to be made in depth to provide for a better separation of product and water. The advantages of using a floating boom are the speed of deployment and the fact that there is no need for additional support as with the stationary boom.
• Since emergency built dams (either underflow or overflow) are seldom perfect, a series of dams is usually required. The first one or two will trap the bulk and the downstream ones the last traces of product. Precautions should be taken to ensure that the foundations of emergency dams are not washed away by the released water. If earth is used to construct an overflow dam, a layer of earth-filled bags should be placed on top of the dam so erosion will not take place.

Removal Methods

• The containment and removal of spilled product on small to medium fast-flowing streams might require a combination of underflow or overflow dams, fixed booms, skimmers, absorbents, and straw-bale dams to ensure a complete clean-up.

• Once containment dams are constructed, the problem of removal of the product from the water surface should be the prime consideration. The removal must be continuous or else built-up of product behind the dams or booms might lead to product escaping the traps.

• The type of removal procedures used depends largely on the amount of product being trapped in a given span of time. If the amount of product moving down the stream is of sufficient quantity, the first dam or fixed boom would quite possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and possibly some water to a tank truck or other holding tank. Separated water may be released from the bottom of the tank truck if it becomes necessary.

• The absorbents (straw, ground corncobs, or other stocked absorbent) could be used at downstream dams or booms. It is inadvisable to place an absorbent in the stream prior to or at the first dam in anticipation of the arriving product. Let the product accumulate at the first dam and use the floating skimmer to recover the product. Disposal of gross amounts of product-soaked absorbent would not then be a problem. Follow directions
on use of each absorbent. Some are designed to be placed on water before product arrives (straw and other new types); others are intended only to be placed on the product after it accumulates on the water (ground corncobs and others). Plastic sheets should be used to place the absorbent on as it is hand skimmed from the water. Refer back to Diagram 7.

- If the amount of product in the stream is minor, a straw-bale dam may be constructed to filter out the product. The slowing of the water would not be necessary, but several dams might be necessary to ensure complete removal. The downstream dams would also offer protection when the upstream bales are removed, releasing traces of product. Straw-bale dams can also be used downstream from underflow and overflow dams for added protection. See Diagrams 9 and 10.

Spill on Large Streams and Rivers

Containment Methods

- The containment techniques differ considerably on large streams and rivers versus small streams. First of all, the smooth calm area of water necessary for product-water separation must be found along the stream or river rather than making one as with small
Floating booms (rather than fixed booms or dams) must be used to trap the surfaced product.

- Local conditions of current and wind must be considered when selecting the site for the boom. A point with a low water velocity near the bank, sufficient depth to operate the product removal equipment, and good access are required. The fact that wind may tend to concentrate the product against one bank must be considered. A smooth undisturbed area of water is required immediately upstream of the boom to ensure that the product has opportunity to separate out onto the surface. The boom should be positioned where the current is at a minimum. It is more effective to boom at a wide, slow position than on a narrow, fast stretch of water.

- If the booms are positioned straight across a river or stream, at right angles to the flow, surface water tends to dive beneath the barrier (boom) when current velocities exceed about 1/2 knot (0.8 ft./sec.). However, if the current of the entire river is 1/2 knot (0.8 ft./sec.) or less, then a boom can be positioned straight across the river or large stream, but angled slightly in relation to the bank.

- By placing the boom at an angle to the banks, product on the surface is diverted along the boom to the side of the river. The current velocity is usually much slower near the river bank than in the center and the product will move along the boom toward the bank for removal. A watertight seal between the bank and the boom is essential. See Diagram 11.

![Diagram 11 — Auxiliary Boom and Bank Sealing Arrangements Using Extra Section of Boom](image)

- A secondary boom should be set up immediately downstream of the first to capture the amounts that escape the upstream boom. A boom can be employed parallel to the river flaw at the bank to form the seal with the booms used to trap the product.

- Where the current velocity of the chosen site exceeds 1/2 knot (0.8 ft./sec.), the boom should be positioned in two smooth curves from a point of maximum velocity (usually the center of the river) to both banks. However, this double boom system requires product to be removed from both sides of the river. To determine the appropriate angle of boom placement and support (mooring) needed to hold the booms in position, the current velocity should be measured by timing a floating object which is 80% submerged over a distance of 100 feet. A time of 60 seconds over this distance indicates a water current.
of approximately 1 knot. For currents from 1 to 2.5 knots (1.7 to 4.2 ft./sec.), the more the boom will have to be angled acute to the bank. The length of the boom will have to be such to reach the center of the river. For currents between 1/2 and 1 knot (0.8 and 1.7 ft./sec.), the angle of employment can be enlarged. See Diagram 12.

DIAGRAM 12 — BOOM ALIGNMENT IN TWO SMOOTH CURVES
(with alternative separated arrangements to let boats pass)

- The major load on the boom is taken by the terminal moorings, particularly the one in the center of the river. However, intermediate moorings are also required both to maintain the smooth curve of the boom to prevent breaking of the boom and to assist with preventing skirt deflection. The intermediate moorings should be positioned every 25 feet and must be adjusted to avoid the formation of indentations in the boom profile. These trap product in pockets, prevent its deflection to the bank, and also encourage diving currents. The moorings' ropes should be five times the water depth. See Diagrams 13 and 14 for mooring details.

- In certain situations it might be advantageous to position booms to deflect the approaching spilled product to a slower moving area. Naturally, additional booms would have to be positioned around this slower moving area prior to deflecting the product to the area. This approach has been used along rivers which have lagoons, etc., with a very low current action. The recovery would take place in the lagoons and not along the river bank.
Removal Methods

- The product collected upstream of the floating booms in a large stream or river should be removed from the water surface as it accumulates. Regular suction equipment, a floating skimmer, and/or absorbents (including absorbent booms) should be used to remove the product as appropriate to the quantity being trapped in a given span of time.
• If the amount moving down the stream is of sufficient quantity, the primary floating boom would possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and some water to a tank truck or other holding tank. Separated water could be released from the bottom of the tank to the river upstream of the boomed area if it becomes necessary.

• The absorbents (type that can be placed on water before product arrival - straw is an example) would be used upstream of the secondary boom to absorb the underflow from the primary boom. An absorbent boom can also be placed between the primary and secondary booms to help the other absorbents control the underflow from the primary boom.

• If the underflow from the primary boom is significant, then the type absorbent which can be placed on the water only after product is collected may be used. An example of this type of absorbent is ground corn cobs. It is best to hand skim the saturated absorbents and place on plastic sheets. However, if the absorbent used can be pumped after product absorption, and speed of removal is a necessity, the floating skimmer can be used to remove the product-soaked absorbent. The disadvantage of pumping the product-soaked absorbent to a truck is the volume that will accumulate (skimmer will pump excess water) and the disposal problems associated with the large water/product-soaked absorbent mixture. See Diagram 15 for details of typical recovery system in a river.

Spill on Stream Which Flows Into Lake or Pond

• There are certain locations where streams flow into lakes or ponds at relatively short distances from potential spill sites. It is conceivable that a spill that reached the streams in question could reach or almost reach the lakes before containment and recovery
operations could be set up. If product has reached the lake before containment operations can be set up, then the slick on the lake will have to be handled as described previously in this Annex. If time permits for containment operations to be set up on the stream in question, it then would be handled as determined by the stream size involved. If product in the stream is near the lake site or if product is flowing into the lake with a significant amount yet to arrive, a different containment should be employed. See Diagram 16 for containment and clean-up details.

**Confinement Methods**

- Product on a stream flowing into a lake should be boomed as close to the entrance as possible. The boom should be positioned on the lake at an angle to the residual stream current so as to direct the surface water to a slower moving area. The area where the product is being deflected should be enclosed by booms to contain it. An additional boom for sweeping the product to the bank will be required. This area of containment should not have a current velocity of more than 1/2 knot (0-8 ft./sec.), preferably less.

**Removal Methods**

- The removal of product from the lake or pond's surface would be handled as described in previously in this Annex.

**F-5 Wildlife Deterrence** - The primary response strategy for wildlife protection emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially-affected species and/or their habitat. This is especially critical for fish streams and rivers. Once the spilled product reaches these streams, there is little that can be done to protect the fish. Primary response strategies may include mechanical cleanup, protective booming, in situ burning, and dispersant use. In addition, the primary response strategy includes the removal of oiled debris, particularly contaminated food sources (such as dead wildlife carcasses), both in water and on land. Some species of wildlife can be deterred away...
from a spill area. The deterrent/exclusionary techniques listed below apply primarily to bird species, although several of the strategies have been successful in deterring mammals away from a spill area.

**Visual Methods**

- Floating or stationary figures, such as a human effigy, have been shown to be an effective method for deterring wildlife during daylight hours.
- Helium-filled balloons have been used to successfully prevent fowl from landing.

**Auditory Methods**

- Propane cannons and audio-visual alarms are effective short-term deterrent devices for certain bird species. They are effective for two to three days, maximum.
- Other noisemakers, such as the playback of recorded sounds of alarmed birds, have been tested and shown to be effective. Furthermore, their effectiveness has been shown to increase when used with detonators. Firecrackers ignited from land and boats were tested as effective deterrent methods on several spills.

**Visual and Auditory Methods**

- Herding or hazing with aircraft can be used for flying waterfowl or waterfowl on the ground that typically fly in response to disturbances. However, herding or hazing with aircraft may cause diving fowl to dive into the contaminated areas. Helicopters have been effective in herding flightless birds (e.g., young or molting fowl). This technique also has numerous applications with terrestrial mammals.
- Herding with boats, which is slow and labor intensive, may be effective for flightless waterfowl, but is ineffective for diving birds. With several boats, birds can be herded overland to inland lakes or boomed areas of lagoons.

**Other Methods**

- Capture and relocation to other areas is an option for small populations of birds of critical sensitivity. However, it is labor intensive and in most cases, may not be practical.
- There is some evidence that birds are sensitive to low-intensity, alternating current electromagnetic fields during nocturnal flights. Further research may indicate how electrical currents can be used.
- Research is underway on how to manufacture chemicals similar to those that plants use to deter birds and other wildlife.

**F-6 Habitat Cleanup** - Presently, national guidance on the cleanup of oil from freshwater habitats is not available. Such guidance is under development through the efforts of the U.S. Environmental Protection Agency, the U.S. Coast Guard, and the American Petroleum Institute.
In the absence of such guidance, techniques that have proven successful in particular situations are listed below.

- Under light oiling, wetlands should be allowed to recover naturally, as more damage is often done from cleanup than was done from the oil itself.

- In the spring, during the early part of the growing season, low-pressure water spraying can be effective to flush free oil from wetlands.

- Heavy accumulations of oil on the wetland surface should be manually removed. However, access to the area must be limited to prevent additional damage to the wetland. Extensive foot traffic within the wetland can result in the entrainment of oil deeper into the sediments, resulting in a long-term persistence problem.

- Preferred manual cleanup methods in wetlands include low-pressure flushing, sorption, and vacuum pumping from boats. Also wrack and other oiled debris may be removed by hand.

**Streams**

- Heavy accumulation and pools of oil should be removed by vacuum and sorbents.

- Low- to high-pressure flooding can be used to flush oil from areas where oil is trapped or inaccessible.

- Sorbent booms should be left in place after a major cleanup has terminated to pick up any oil that continues to be slowly released.

- Under flume dams, sorbent dams, etc., can be used to concentrate oil without changing stream flow.

**Soil and Groundwater**

- Contaminated soil must be removed, treated if possible, and replaced.

- All efforts should focus on prevention of oil penetration into coarse sediments, where recovery is most difficult.

- It may be necessary to dig intercept trenches to keep shallow subsurface oil from flowing toward streams.

- Pooled oil in trenches should be removed by vacuum, taking extreme care not to further disrupt the adjacent vegetation.

- Recovery wells may be needed to remove oil which has migrated to and accumulated on the water table.
Vegetation

- Aboveground vegetation that is heavily oiled should be cut only in the early spring, during the beginning of the growing season, taking care to let the root system remain intact and undisturbed.

Environmental Cleanup

- In determining the techniques to be used for environmental cleanup, the responsible party will work with Federal and State representatives to select options which generally will reduce contamination to levels which:
  - do not exceed background levels,
  - do not exceed statutory limits,
  - are not lethal,
  - do not cause sub-lethal effects,
  - do not cause tainting;
  - do not affect ecosystem function,
  - are not visible to the naked eye, or
  - do not limit human use.
Appendix G
Example Installation Spill Response Plan
CHAPTER 1 - GENERAL INFORMATION

1-1. PURPOSE

a. The purpose of this plan is to ensure prompt remedial action in the event of an actual spill at a shop or unit within the Fort George G. Meade, and to minimize hazards to personnel or the environment.

b. The National Oil and Hazardous Substances Contingency Plan, 47 CFR 31180 (reference 16, Enclosure 1), requires Federal agencies to develop a plan to clean up discharges of oil and hazardous substances for which they are responsible. In accordance with these requirements, AR 200-1 requires all installations with the capability to release oil or hazardous substances in quantities that may be harmful to the environment to maintain an ISCP which identifies resources for use in cleaning up discharges at installations and activities, and will also be prepared to provide assistance to other agencies when requested.

1-2. APPLICABILITY

a. The plan applies to the INSTALLATION NAME and its employees located at ADDRESS. The plan was developed IAW AR 200-1, chapter 3 and is written site specific for this installation. Organizational maintenance shops shall be responsible for responding to spills occurring at the units they support. Unit administrative officers shall immediately contact their organizational maintenance shop in the event of a spill.

1-3. INSTALLATION NAME INSTALLATION INITIAL RESPONSE TEAM (IRT)

a. Procedures for IRT Alert and Mobilization

(1). IRT Personnel will be notified utilizing civilian telephone communications system. The chain of command may be utilized to accomplish notification if deemed necessary by the IOSC/alternate.

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>WORK PHONE</th>
<th>HOME PHONE</th>
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<tbody>
<tr>
<td>IOSC</td>
<td></td>
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<tr>
<td>IOSC ALTERNATE</td>
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<td></td>
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<tr>
<td>SPILL CONTAINMENT</td>
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<td></td>
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<tr>
<td>SECURITY/EVAC.</td>
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<td></td>
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<tr>
<td>TEAM MEMBER</td>
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<tr>
<td>TEAM MEMBER</td>
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</table>

c. Training Plans of the Initial Response Team (IRT)

(1). OSHA regulations in 29 CFR 1960 requires training of federal employees working with hazardous materials and wastes. The training must be appropriate to the work performed. Training is required for management, first line supervisors, safety personnel and spill team personnel.
(2). The IOSC will instruct each member of the IRT on the duties and responsibilities of the team in accordance with the Installation Spill Contingency Plan. In addition, refresher training shall be conducted by the IOSC for members of the IRT. Training shall be documented and kept on file with this plan for a period of two (2) years. Copies of lesson plans, attendance rosters and course test scores will be sent to the Environmental Office and State Safety Office.

1-4. SECURITY AND EVACUATION ROUTE

   a. Security Control Point:
   
   b. Evacuation Route:
   
   c. Alternate Route: N/A
   
   d. The IOSC shall utilize the warehouse supervisor's office to coordinate spill activities. The shop office provides access to a reliable communications system.
FIGURE 1 - SITE PLAN OF SECURITY AND EVACUATION ROUTE

(this page would be replaced with Figure 1)
CHAPTER 2 - RESPONSE TEAM PROCEDURES

2-1. DUTIES, RESPONSIBILITIES AND IMMEDIATE RESPONSE ACTIONS:

a. Warehouse Supervisor/Appointed Alternate: Will act as Installation On Scene Coordinator (IOSC) in the event of a spill until relieved by civilian emergency personnel (if necessary). This individual delegates duties to response team members in accordance with procedures provided in this plan. (See Figure 2, Decision Tree - Immediate Response Actions). The IOSC will take the immediate response actions:

   (1). The IOSC shall determine if the spill can be handled in-house or if outside response is necessary. A spill of 25 gallons or more of oil or petroleum motor fuels is a "REPORTABLE" spill (outside agency notification required). A spill of less than 25 gallons of oil or petroleum motor fuels, which is not cleaned up within 24 hours is a "REPORTABLE" spill. This is Maryland Department of the Environment policy. Oil is not considered a hazardous material in the State of Maryland. Any spill of hazardous materials or hazardous wastes in excess of 16 ounces (1 lb.) shall be considered a "REPORTABLE" spill (Outside agency notification required). Immediate assistance in determining "REPORTABLE" spill quantities is available from the Environmental Branch at 301-677-9648.

   (2). The IOSC shall determine whether an immediate evacuation of on-site personnel is required, (i.e. an explosive condition or overwhelming vapors).

   (3). The IOSC shall report all spills to Environmental Branch at regardless of whether a spill is designated "REPORTABLE" (outside agency notification necessary). The IOSC is responsible for contacting outside agencies for "REPORTABLE" spills. (See Appendix "B" - Spill or Hazardous Substance Release Report). The IOSC may utilize the chain of command for assistance in contacting outside agencies if deemed necessary by the IOSC.

   (4). The IOSC shall insure containment and countermeasures such as source control and barrier placement are initiated. (See Appendix "A"- Immediate Response Actions.

   (5). The IOSC shall initiate cleanup, mitigation and disposal unless relieved by an outside agency. All contaminated material will be placed in open top 55 gal. drums.

   (6). The IOSC shall provide documentation for verbal external reporting requirements and follow-up written reports. (See Appendix "B").

   (7). Surveillance procedures for early detection shall be practiced by IRT members and unit administrators. The IOSC will insure that weekly visual inspections are completed of all storage facilities, drums or containers.

b. Initial Response Team (IRT) Requirements: All personnel that are assigned to (insert shop name) will in the event of a spill automatically become the Initial Response Team (IRT). They will work under the direction of the Shop Chief (IOSC).
(1). Alternate Installation on Scene Coordinator: Takes control in the event of IOSC absence. If the IOSC is present, the alternate becomes his immediate assistant for implementation of this plan.

(2). Initial Response Team Personnel: When deemed necessary, plug leaks, reposition leaking containers, place sandbags and/or absorbent material so as to stop the flow, contain the flow and prevent entry to storm drains.

(3). Notification of Personnel: The IOSC or Alternate will contact the appropriate personnel in the event of a spill.

(4). Security Personnel: Seal off the area to all unauthorized personnel and provide assistance in following predetermined evacuation routes. Security personnel may be appointed by the chain of command.

2-2. REPORTING

All Reportable Quantity spills will be reported to the following agencies listed in paragraphs a. and b. below as soon as practical using the most expedient means available.

a. FGGM personnel to be contacted in the event of a reportable spill. Contact your higher headquarters and then one of the following individuals:

   (1) Environmental Protection Specialist
   (2) Facilities Management Officer
   (3) Chief of Staff
   (4) Public Affairs Officer
   (5) Security Police (non-duty hours spills)

b. Outside agencies requiring notification.

   (1) MDE Emergency Response Branch (ERB) (24hr) (866) 683-4686
   (2) National Response Center (24hr) (800) 424-8802

2-3. OTHER USEFUL EMERGENCY CONTACTS

a. Police Department 911
b. Fire Department 911
c. CHEMTREC 800-262-8200
CHAPTER 3 - RESOURCES

3-1. EMERGENCY EQUIPMENT AND LOCATIONS

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>LOCATION</th>
<th>TYPE</th>
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<tbody>
<tr>
<td>a. Fire Extinguishers</td>
<td></td>
<td></td>
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<tr>
<td>b. Oil Absorbent Material</td>
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<td></td>
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<tr>
<td>c. Barrel Top Pig Mat</td>
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<tr>
<td>d. Spill Kit</td>
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<tr>
<td>e. Aprons/Goggles/Gloves</td>
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<td>f. Signage</td>
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<td>h.</td>
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<td>i.</td>
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3-2. EMERGENCY EQUIPMENT CONTRACTORS

a. In the event of a spill which is too large for FGGM resources, it may be necessary to utilize the services of an emergency response Contractor. The IOSC is not authorized to contract these services. Utilization of an emergency response Contractor must be authorized by FGGM.

b. Twenty-four hour emergency response spill control service contractors are listed below:

(1). CONTRACTOR

(2). CONTRACTOR
APPENDIX A: POL SPILL IMMEDIATE RESPONSE ACTIONS

1. STOP THE FLOW
   a. Turn off valves, pumps & motors
   b. Reposition containers
   c. Plug container
   d. Transfer material from leaking container
   e. Overpack container

2. STOP THE SPREAD
   a. Cover or block storm sewer inlets
   b. Surround spill with absorbent materials
   c. Dig trenches to contain or trap the spill

3. RECOVER THE SPILLED MATERIAL
   a. Continue adding absorbent materials
   b. Place used absorbent in open-top drums
   c. Dig up all contaminated soils and place in open-top drums

4. DISPOSE OF WASTES
   a. Process for turn-in to Environmental Division for disposal
   b. Contact Facilities Environmental personnel for contractor disposal procedures
   c. Contact Facilities Environmental personnel for contractor disposal procedures
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APPENDIX B: POL SPILL OR HAZARDOUS SUBSTANCE RELEASE REPORT

To: DPW Environmental Division
Fort George G. Meade
4215 Roberts Avenue, 3rd Floor
Fort Meade, Maryland 20755

Utilize this format for verbal reports addressing as many items as possible. Follow up with a written report to MDE addressing all items within ten (10) days.

Date: ______________________________
Person Reporting: ______________________________
Phone No: ______________________________
MDE POC: ______________________________
Time Reported: ______________________________

SUMMARY:

1. Installation or Site: ______________________________
2. Caller: ______________________________
3. Date and Time of Incident: ______________________________
4. Location, Specific Areas Affected: ______________________________
5. Cause, Source of Incident: ______________________________
6. Material Type & Amount: ______________________________
7. Damage to Surroundings: ______________________________
8. Potential Dangers: ______________________________
9. Corrective Actions - Elimination of Source: ______________________________
10. Containment Measures: ______________________________
11. Removal of Contamination: ______________________________
12. Assistance Required: ______________________________
13. Estimated Completion Date: ______________________________
14. Any News or Public Reaction: ______________________________
15. General Discussion: ______________________________
16. Agencies Notified, Date and Time: ______________________________

Distribution:
Safety Office

Fort George G. Meade, Maryland
SPCC Plan
September 2012
THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED: for the latest version of this document, contact DPW-ED at 301-677-9648
Appendix H
Training Drills, Exercises, and Records
H-1 **Training Requirements**: Oil storage facilities requiring a Federal Facility Response Plan are obligated under the Oil Pollution Act of 1990 (OPA 90) to conduct regular training, exercises and drills related to the execution of their response plan on an annual basis. Under the implementing OPA 90 regulations, training and exercise records are also required, and are to be maintained as a separate attachment to the contingency or response plan. The records must be maintained for at least 5 years to comply with EPA requirements.

Applicable training guidance is published in the following documents:

- The Department of Transportation's, the Environmental Protection Agency's, the Department of Interior's *Training Reference for Oil Spill Response*.
- The Department of Transportation's, the Environmental Protection Agency's, the Department of Interior's *National Preparedness for Response Exercise Program (PREP) Guidelines*.
- Occupational Safety and Health Administration (OSHA) requirements under 29 CFR 1910.120 (q), *Emergency Response to Hazardous Substance Releases* (training under this section is often referred to as Hazardous Waste Operations (HAZWOPER) training).

Note: the National Fire Protection Association, Inc. in their “Standards for Professional Competence of Responders to Hazardous Materials Incidents” lists training requirements beyond those in 29 CFR Part 1910.120(q). These higher training standards commendably represent the training goals of the FGGM Fire Department, but are beyond present State and Federal requirements listed above. This Appendix addresses only required training associated with the above listed references.

H-1.1 **Environmental Protection Agency (EPA) Requirements**

40 CFR Part 112.21 requires that a facility "...develop and implement a facility response training program and a drill/exercise program ..." The drill/exercise program is to include evaluation procedures. It is recommended that "the training program be based on the ... Training Reference for Oil Spill Response..." The EPA notes that a "program that follows the National Preparedness for Response Exercise Program (PREP) (See PREP Guidelines, H-1.3) will be deemed satisfactory ..."

H-1.2 **Training Reference for Oil Spill Response Requirements**

The Training Reference for Oil Spill Response is a unified Federal effort to incorporate the exercise requirements of the Coast Guard, the Environmental Protection Agency, the Research and Special Programs Administration Office of Pipeline Safety and the Minerals Management Service in meeting the intent of the Oil Pollution Act of 1990 for spill response training.
The Training Reference provides a foundation of suggested subject material for training personnel with responsibilities identified in the Oil and Hazardous Substance Spill Prevention and Response Plan. Subject material is provided for each of the key individuals or groups of people required to be identified in the OHS Spill Prevention and Response Plan as well as for worker health and safety:

- Qualified Individual (Primary and alternate IOSC)
- Spill Management Team (Incident Management Team)
- Facility Personnel (site/activity supervisors, fuel operators, installation contractor, etc.)
- Oil spill removal organizations (Cleanup contractors)
- Worker Health and Safety

**H-1.3 National Preparedness for Response Exercise Program Requirements**

The National Preparedness for Response Exercise Program (PREP) is a unified Federal effort to incorporate the exercise requirements of the Coast Guard, the Environmental Protection Agency, the Research and Special Programs Administration Office of Pipeline Safety and the Minerals Management Service in meeting the intent of the Oil Pollution Act of 1990 for spill response preparedness. The PREP drill year is considered to start on January 1 of each year.

The PREP outlines the triennial cycle of exercises, wherein all plan components must be exercised at least once every three years. These components include:

- Organizational Design
  1. Notification
  2. Staff mobilization
  3. Ability to operate within the plan’s response management system
- Operational Response
  4. Discharge control
  5. Assessment of discharge
  6. Containment of discharge
  7. Recovery of spilled material
  8. Protection of economically and environmentally sensitive areas
  9. Disposal of recovered product
- Response Support
  10. Communications
  11. Transportation
  12. Personnel support
  13. Equipment maintenance and support
  14. Procurement
  15. Documentation
The PREP provides guidance on emergency procedures drills, unannounced exercises, participation in area exercises, self evaluation, "Qualified Individual" drills, spill management and tabletop exercise development and equipment deployment exercises.

H-1.4 **Army Regulation 200-1 Requirements**

Army Regulation 200-1 requires the Installation Commander, in coordination with officers responsible for implementing Spill Prevention Control and Countermeasures Plans, to "provide yearly training to test the effectiveness of the Installation Spill Contingency Plan personnel and equipment."

H-1.5 **Occupational Safety and Health Administration (OSHA) Requirements**

Occupational Safety and Health Administration (OSHA) regulations require annual refresher training. OSHA rules specify that all personnel who are expected to respond to, and control, hazardous discharges (includes petroleum products) will undergo annual refresher training of sufficient content and duration to maintain their competencies in those areas at least yearly.

Initial and refresher training can include:

1. Identifying personnel and alternates responsible for site safety and health;
2. Information on safety, health and hazards at the terminal;
3. Use of personal protective equipment;
4. Identifying work practices by which the employee can minimize risks from hazards;
5. Safe use of engineering controls and equipment;
6. Medical surveillance requirements, including recognition of symptoms and signs which might indicate overexposure to hazards;
7. Decontamination procedures;
8. Emergency response plan instruction and location/identification of personal protective equipment;
9. Confined space entry procedures; and
10. Spill containment procedures.

H-2 **Fort George G. Meade Training Program:** FGGM's Spill Management Team and selected installation oil transfer and storage facility personnel will complete an OPA 90 site-specific annual training program that encompasses the EPA training requirements and the OSHA refresher training requirements listed in section H-1.5 above. Following the guidelines in the Training Reference for Oil Spill Response and the National Preparedness for Response Exercise Program (PREP), the Environmental Response Coordinator will ensure the development of site specific triennial training and exercise programs that will exercise all plan components within the FGGM Oil and Hazardous Substance Spill Prevention and Response Plan over a three year period.

The site-specific training program will be initiated during the spring to fall period of each year, then repeated each successive year. The IOSC and the IRT will participate in the training along with the installation’s spill response contractor assets and other installation personnel. Notification drills (announced and unannounced), training on the execution of the FGGM Emergency Response Action Plan, tabletop exercises, installation equipment deployment drills and spill response contractor equipment drills will be conducted. The annual training program,
including the OSHA refresher training, will be accomplished and certified, with training and equipment testing documentation prepared for enclosure in installation and individual training records. Focused training will also be directed to those individuals, who because of circumstances, could possibly serve as Qualified Individuals (IOSC) and assume full control at the incident scene.

**H-3 EPA Training Records:** 40 CFR Part 112 requires that a record of all formal response and safety training received by each employee be maintained in the Plan or a separate appendix that is readily available. EPA also notes that mock alert drills, as required by the Clean Water Act, section 311(j)(5), are part of the Plan and that during drills, actions taken by the response team, both predicted and unpredicted, should be noted, and any problems that arise should be resolved as soon as possible. The Plan shall include a description of training exercises and periodic unannounced drills to be carried out under the Plan.

**H-4 FGGM Training Logs:** This Appendix contains blank forms for recording training and drills. Immediately after FGGM personnel receive formalized training, each first line supervisor will insure that personnel training logs are posted and filed in this Appendix (or other designated location). At a minimum, the training logs should describe the type training received (specific subjects), contain a listing of the employees receiving the instruction, and note the number of hours allocated to the training and the date the training occurred. Training exercises, announced and unannounced, should be described in terms of general scenarios addressed, participants, special equipment utilized, and actions taken by the Spill Management Team, with particular problems noted. In order to comply with the EPA record keeping requirement, the completed records will normally be maintained at the end of this Appendix and retained for 5 years.

**H-4.1 Qualified Individual Notification Drill:** The purpose of the Qualified Individual Notification Drill is to assure that the Qualified Individual (the IOSC), and the rest of the FGGM Incident Management Team (IMT) can be contacted in a spill response emergency to perform their required duties. Contact shall be made by telephone, radio message, message-pager, or facsimile, and confirmation must be received to satisfy the requirements of this drill. In accordance with the PREP guidelines, a Qualified Individual Notification Drill shall be conducted once per quarter and the records retained for 5 years.

**H-4.2 Incident Management Team (IMT) Table-Top Exercise (TTX):** The FGGM IMT TTX must be conducted annually in accordance with PREP. In addition, at least one such exercise every three years shall involve a worst case discharge scenario. Tabletop sessions shall exercise the IMT’s organization, communication and decision-making abilities in the event of a spill. Specifically, the TTX shall establish:

- The IMT knowledge of the response plan;
- Evaluate/validate the Facility Response Plan;
- Enhance personal knowledge of emergency response procedures;
- Assess capability of IMT’s knowledge of the notification system;
- Improve the interaction, coordination, and decision-making among IMT members;
- Reinforce the role of the "Qualified Individual";
- Ability to access the Oil Spill Removal Organization (OSRO);

Verification of successful completion of the IMT TTX shall be made by the Directorate of Environment and Safety, and such certification shall be maintained on file for a period of 5 years following the exercise.
**H-5  Discharge Prevention Meetings:** EPA’s 40 CFR Part 112 also requires that a record of discharge prevention meetings be maintained. In compliance with the regulations, owners or operators shall schedule and conduct spill prevention briefings for their operating personnel at least once a year to assure adequate understanding of the installation's SPCC plan. The briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

**H-6  Equipment Testing:** Regulations require that deployment of response equipment be conducted on a semiannual basis. Deployment exercises require that response equipment identified in the Plan be deployed and operated within the intended operating environment. The purpose of the equipment deployment exercise is to ensure that the response equipment identified in the Plan is operable and that personnel responsible for operating the equipment are capable of doing so.

The installation’s support services contractor is also the spill response contractor with trained personnel and equipment to meet response needs. As part of the annual OPA 90 training, selected equipment from the contractor’s inventory will be alerted and deployed and tested at a simulated spill site. It is not necessary that every piece of equipment identified in the Plan be deployed and operated, as only a representative sample of each type of equipment need be included.

At the termination of the equipment deployment and testing exercise, documentation will be completed, and filed to be available for inspection by the regulators.

**H-7  Specific Training Levels for FGGM Response Personnel:** The following sub-sections identify the various levels of training outlined in 29 CFR 1910.120 and Army Instructions.

**H-7.1 Level 1 - First Responder (Awareness Level) 29 CFR 1910.120(q)(6)(i)**

This level of training shall be given to all personnel who are likely to witness or discover a hazardous substance release and are trained to initiate a response sequence by notifying the proper authorities. Level 1 First Responders would take no further response action beyond notifying the authorities of the release.

**Employees Covered:**
- Security Police
- HazWaste Accumulation Site Managers (as assigned)
- Hazardous Material Storage Location Personnel
- Fuel Distribution Personnel
- Emergency Medical Technicians

**Training Requirements:** First responders at the Awareness Level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

- An understanding of what hazardous materials are, and the associated risks during an incident;
- An understanding of the potential outcomes associated with an emergency created when hazardous materials are present;
- The ability to recognize the presence of hazardous material in an emergency;
- The ability to identify the hazardous material, if possible;
• An understanding of the first responder’s role in overall response plan; and
• The ability to realize the need for additional resources and to make appropriate notifications.

H-7.2  Level 2 - First Responder (Operations Level)  29 CFR 1910.120 (q)(6)(ii)

This level of training shall be given to individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site. The purpose of this response is to protect nearby persons, property, or the environment from the effects of the release. The responder’s function is to contain the release from a safe distance, keep it from spreading, and prevent exposures.

Employees Covered:
• HazMat Response Team Personnel
• Fire Protection Personnel
• Disaster Preparedness Personnel
• Hazardous Material Users (as directed)
• Emergency Medical Services Personnel
• Installation Support Services Personnel (selected)

Training Requirements: (Level 1 training is a prerequisite) First responders at the operational level shall have at least 8 hours of training or have sufficient experience to objectively demonstrate competency in the following areas, in addition to those listed in the awareness level, and the employer shall so certify:

• Know the basic hazard and risk assessment techniques;
• Know how to select and use proper personnel protective equipment provided in the first responder operational level;
• Understand the basic hazardous materials terms;
• Know how to perform basic control, containment and/or confinement operations within the capability of the resources and personnel protective equipment available within their units;
• Know how to implement basic decontamination procedures; and
• Understand the relevant standard operating procedures and termination procedures.

H-7.3  Level 3 - Hazardous Materials Technician  29 CFR 1910.120 (q)(6)(iii)

This level of training shall be given to individuals who respond to releases or potential releases of hazardous substances with the intent of aggressively stopping the release by plug, patch, dike, berm, or other means.

Employees Covered:
• HazMat Team (as assigned)
• Disaster Preparedness Trainers
• Explosive Ordnance Disposal (EOD) Personnel

Training Requirements: (Level 1 and Level 2 training are prerequisites) Initial and refresher training requirements for this level are detailed in 29 CFR 1910.120 (q)(6)(iii). HazMat Technicians are individuals who respond to releases or potential releases for the purpose of
stopping the release. They assume a more aggressive role than a first responder at the operations level, in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. HazMat Technicians shall receive at least 24 hours of training including the first responder operational level training and, in addition, have competency in the following areas:

- Know how to implement the employer’s emergency response plan;
- Know the classification, identification, and verification of known and unknown materials;
- Be able to function within an assigned role within the Incident Command System;
- Know how to select and use proper specialized chemical personal protective equipment provided to the HM technician;
- Understand hazard risk assessment techniques;
- Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available within the unit;
- Understand and implement decontamination procedures;
- Understand termination procedures; and
- Understand basic chemical and toxicology terminology and behavior.

H-7.4 **Level 4 - Hazardous Materials Specialists 29 CFR 1910.120 (q)(6)(iv)**

This level of training shall be given to individuals who respond with and provide support to HazMat Technicians. Generally, only a few personnel need this training.

**Employees Covered:**

- HazMat Team Leaders and Trainers (selected)
- Environmental Engineers and Technicians (selected)
- Environment and Safety Personnel (selected)

**Training Requirements:** Personnel receiving this training have duties (and training) parallel to those of the HazMat Technicians; however, Level 4 duties require a more direct or specific knowledge of the various substances they may encounter or be called upon to contain. The HazMat Specialists may also act as a site liaison with State, local, or other agencies in regard to site activities. The HazMat Specialists shall receive at least 24 hours of training equal to the technician level and in addition have competency in the following areas:

- Know how to implement the employer’s emergency response plan;
- Know the classification, identification, and verification of known and unknown materials;
- Know the state and local emergency response plan;
- Be able to select and use proper specialized chemical personal protective equipment provided to the HM technician;
- Understand in-depth hazard risk assessment techniques;
• Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available;
• Be able to determine and implement decontamination procedures;
• Have the ability to develop a site plan; and
• Understand basic chemical and toxicology terminology and behavior.

**H-7.5 Level 5 - Qualified Individual (QI) 29 CFR 1910.120 (q)(6)(v)**

This level of training shall be given to personnel who will assume control of the incident beyond the first responder awareness.

Employees Covered:
- Designated Environmental Personnel
- Senior Fire Officers

Training Requirements:
- Know and be able to implement the incident command system;
- Know how to implement the emergency response plan;
- Know and understand the hazards and risks associated with employees working in chemical protective clothing;
- Know how to implement the local (off base) emergency response plan;
- Know the State emergency response plan and the Federal Regional Response Team plan; and
- Know and understand the importance of decontamination procedures.

**H-7.6 Level 6 - Post-Emergency Response Operations 29 CFR 1910.120 (q)(11)**

This training level applies to personnel assigned only to the cleanup elements of a response team.

Employees Covered:
- Clean Up Team (as assigned)
- Fuels Management
- Personnel who handle hazardous waste

Training Requirements: Upon completion of the emergency response, if it is determined necessary to remove hazardous substances, health hazards, and material contaminated with hazardous substances from the site of the incident, the employer conducting the cleanup shall comply with the following: Emergency Action Plan 29 CFR 1910.38(a), Respiratory Protection 29 CFR 1910.134, Hazard Communication 29 CFR 1910.1200, and specific training from the generator regarding the safe handling of hazardous substances involved.

**H-7.7 Trainers**

Trainers who teach any of the above programs shall have satisfactorily completed a teaching training course for the subject they are expected to teach, as outlined in 29 CFR 1910.120 (q)(7) and NFPA 472. Or, they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the course they are to teach.
# Spill Response Team/Spill Management Team Tabletop Drill and Exercise Log

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**Personnel Involved (Including Name of Qualified Individual):**

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**Evaluation:**

**Changes to be Implemented:**

**Timetable for Implementation:**

**Signature of Responsible Individual:**
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### SPILL RESPONSE DRILL AND EXERCISE LOG

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### OBJECTIVES OF DRILL:

### EVALUATION:

### CHANGES TO BE IMPLEMENTED:

### TIMETABLE FOR IMPLEMENTATION:

### SIGNATURE OF RESPONSIBLE INDIVIDUAL:
# DISCHARGE PREVENTION MEETING RECORD

**UNIT/ACTIVITY:**

**DATE:**

**ATTENDEES:**

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**TOPIC**

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**IMPLEMENTATION DATES:**

**COMMENTS:**

**SIGNATURE OF RESPONSIBLE OFFICIAL:**
Qualified Individual Notification Drill Log
(Mock Alert Drill Log)

Date: _______________________

Exercise Coordinator: ________________________________

Installation On-Scene Coordinator: ____________________________

Emergency Scenario: _____________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Time Incident Management Team (IMT) 90% assembled: __________________________

Other Agencies Included (fire, police, city emergency manager, local cooperative, COM, etc.) ______
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Time Equipment Deployed/Action Taken: _________________________________
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Evaluation: __________________________________________________________
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Changes To Be Implemented: _____________________________________________
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Response Plan Review: _________________________________
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Milestones To Implement Changes: _________________________________
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Appendix I
Certification of Applicability of Substantial Harm Criteria
CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: Fort George G. Meade, Maryland
Facility Address: 4215 Roberts Avenue, 3rd Floor
Fort Meade, MD 20755

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? Yes  No X

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest above-ground oil storage tank plus sufficient freeboard to allow for precipitation within any above-ground 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 Attachment C-III to this appendix or a comparable formula1) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAAA’s “Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments” (See Appendix E to this part, section 123, for availability) and the applicable Area Contingency Plan. 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 Attachment C-III to this appendix or a comparable formula1) such that a discharge from the facility would shut down a public drinking water intake2? Yes  No X

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

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

Signature: 
Name: 
Title: 
Date: 

1 If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

2 For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).
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CERTIFIED MAIL

Mr. Mick Butler
Fort George G. Meade
239 Chisholm Avenue
Fort Meade MD 20755

Dear Mr. Butler:

Enclosed is the validated Oil Operations Permit No. 2009-OPT-3191 for your facility. Please review the conditions of this permit and become thoroughly familiar with its requirements. This permit is considered to be an enforceable document on its effective date.

If you have any questions, please contact Mr. Albert Simkins of the Permits Division at (410) 537-3402.

Sincerely,

Horacio Tablada, Director
Waste Management Administration

HT:as

Enclosures

cc:  Mr. Herbert M. Meade
     Mr. Gregory E. Sonberg
OIL OPERATIONS PERMIT

<table>
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<th>Oil Operations Permit Number</th>
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<td>March 20, 2009</td>
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<tr>
<td>Expiration Date</td>
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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," hereby authorizes:

Fort George G. Meade
239 Chisholm Avenue
Fort Meade, Maryland 20755

to operate an oil facility:

Located at:
2212 Chisholm Avenue
Fort Meade, Anne Arundel County
Maryland

in accordance 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

(866) 633-4686
(24 Hours)

AND THE APPROPRIATE FEDERAL AUTHORITY
This permit authorizes the delivery of oil by truck tank or by transport in Maryland, and the storage of oil in the aboveground storage systems as listed in Appendix A.

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 your facility prior to filling as required by Code of Maryland Regulations 26.10.01.12B (9).

2. Deliver oil by truck tank or by transport consistent with Code of Maryland Regulations 26.10.01.16 and 26.10.01.17.

3. 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.

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

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, 1-866-633-4686, 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)

A. 12. Conduct driver safety training requirements as specified in 49 CFR 172.700 and COMAR 26.10.01.16D.

13. 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 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.

15. Submit a complete listing of aboveground storage tank as changes to the aboveground storage tank database are completed for inclusion in this permit as Appendix A.

16. Replace the damaged dispenser hoses associated with the 400-gallon gasoline/diesel split tank (8890G).

17. Remove soil from around the sides of the following tanks:

   1,000-gallon #2 heating oil (8699)
   1,000-gallon #2 heating oil (2242)

18. Provide grounding for aboveground storage tanks containing Class I and Class II liquids in accordance with NFPA 30.2.5.3.4.
I. SPECIAL CONDITIONS (continued)

B. Schedule of Compliance

1. 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 Conditions A.16 through A.18 shall be completed within 90 days after the effective date of this permit.

2. Notification

No later than 14 calendar days following the date identified in the above Schedule 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.

II. 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.
II. GENERAL CONDITIONS (continued)

B. Plan for Notification, Containment 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.

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 immediate 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 the permittee.

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 shall 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;
II. GENERAL CONDITIONS (continued)

E. Written Report Required on Removal and Cleanup of Spilled Oil (continued)

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 permit. 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. Monitoring by Permittee Required

The permittee 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 Required

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 of litigation or when so requested by the Department.
II. GENERAL CONDITIONS (continued)

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" 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. A permit 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.

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

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

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:

1. 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.
II. GENERAL CONDITIONS (continued)

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. Property Rights

The issuance of this permit 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.

O. Miscellaneous Provisions

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

2. 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

If any 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.

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.

Horacio Tablada, Director
Waste Management Administration


## Appendix A

PORT GEORGE G. MEADE
ABOVEGROUND STORAGE TANK INVENTORY

OIL OPERATIONS PERMIT APPLICATION
FORM A

(continued)

### Table 1 - Aboveground Storage Tank Description

<table>
<thead>
<tr>
<th>Tank Number</th>
<th>Service Status</th>
<th>Storage Capacity</th>
<th>Type of Oil Stored</th>
<th>Associated Piping</th>
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<td></td>
<td>Gallons</td>
<td></td>
<td>Aboveground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barrels</td>
<td></td>
<td>Underground</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td>(Example: S-Y-A)</td>
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<td>1</td>
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<td>Fuel Oil #2</td>
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<td>Fuel Oil #2</td>
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<tr>
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<td>Fuel Oil #2</td>
</tr>
</tbody>
</table>

Updated: 18 March 2009
.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 for 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:
   (1) Perform a driver's safety training a 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 Liquids" 200, which is incorporated by reference.
   (2) A driver shall be 21 years or older as required by Transportation Article, §25-111, Annotated 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 vehicle, 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 visual condition involving the transfer operation, such as spills, any obvious discrepancies between the quantities delivered and received, or the existence of an 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.
CROSS REFERENCE GUIDE FOR COMAR 26.10.01.16

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

3. 49 CFR 171 (Subpart C - Hazardous Materials Regulations)
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 Vessel
9. 49 CFR 177 Carriage 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 Packaging

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 Rules
10. 49 CFR 398 Transportation of Migrant Workers
11. 49 CFR 399 Employee Safety and Health Standards