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FINAL REPORT DEFENSE FUEL SUPPORT POINT OIL POLLUTION OPERATIONS
MANUAL CNC CHARLESTON SC
6/1/1996
ENSAFE/ ALLEN AND HOSHALL

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**DEFENSE FUEL SUPPORT POINT
CHARLESTON, SOUTH CAROLINA**

**OIL POLLUTION PREVENTION
OPERATIONS MANUAL**

Prepared for:

**Defense Logistics Agency
Defense Fuel Supply Center
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**Southern Division
Naval Facilities Engineering Command
Charleston, South Carolina
Contract Number: N62467-89-D-03180107**

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**Final
June 1996**

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DEFENSE FUEL SUPPORT POINT — CHARLESTON, SOUTH CAROLINA**

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**DEFENSE FUEL SUPPORT POINT
CHARLESTON, SOUTH CAROLINA**

**Title 33 CFR Part 154
Subpart B
U.S. Coast Guard
Operations Manual**

1.0 INTRODUCTION

The Defense Fuel Support Point (DFSP) Charleston, South Carolina, is a government-owned, contractor-operated fuel storage facility in North Charleston, approximately 3 miles from the DFSP Charleston Fuel Pier on the Cooper River, north of the City of Charleston. The facility consists of a main storage terminal and a pipeline right-of-way area which contains the terminal pipeline system to DFSP Charleston Fuel Pier and pier facilities. The DFSP Charleston terminal consists of a fenced area which encloses seven bulk aboveground tanks, five small underground tanks, a vehicle fuel dispenser, a railcar fill rack, and a truck fill stand.

DFSP Charleston is responsible for receiving, storing, distributing, and accounting for two grades of Defense Logistics Agency-owned petroleum products (JP-8 and JP-5) required in support of designated Department of Defense activities. DFSP Charleston is a wholesale activity.

2.0 FACILITY NAME AND GEOGRAPHIC LOCATION

Table 1 Facility Information	
Name	Defense Fuel Support Point Charleston, South Carolina
Owner	Defense Logistics Agency Defense Fuel Supply Center Fort Belvoir, Virginia
Mailing Address	Defense Fuels Charleston Terminal c/o Management Engineering Associates, Inc. 5862 North Rhett Extension Hanahan, South Carolina 29406
Physical Location of the Marine Transportation Facility	Wharf on the Cooper River, just downstream of Goose Creek, at the Naval Weapons Station, South Annex.
County	Berkeley County
Latitude	32° 54' 22" N
Longitude	79° 57' 15" W
Commercial Telephone Number	(803) 744-3884
Fax Number	(803) 744-3054

3.0 PHYSICAL DESCRIPTION OF FACILITY

DFSP Charleston is capable of receiving from vessels or barges, and loading barges via the manifolds on the Cooper River wharf. The wharf lies 2.5 miles from the Charleston terminal on the Cooper River just downstream from Goose Creek, at the Naval Weapons Station, South Annex (Figures 1 and 2). It consists of a 530-foot-long pier at the downstream end of the Naval Weapons Station dock. It includes a dock manifold, two transfer locations (one for barges and one for tankers), two Chicksan loading arms, a MECO Wheaton loading arm, a personnel shelter (Building 3142), and a storage bay at the end of Building 852 (Figure 2). Two 18-inch pipelines run approximately 2.5 miles between the wharf and the fuel farm.

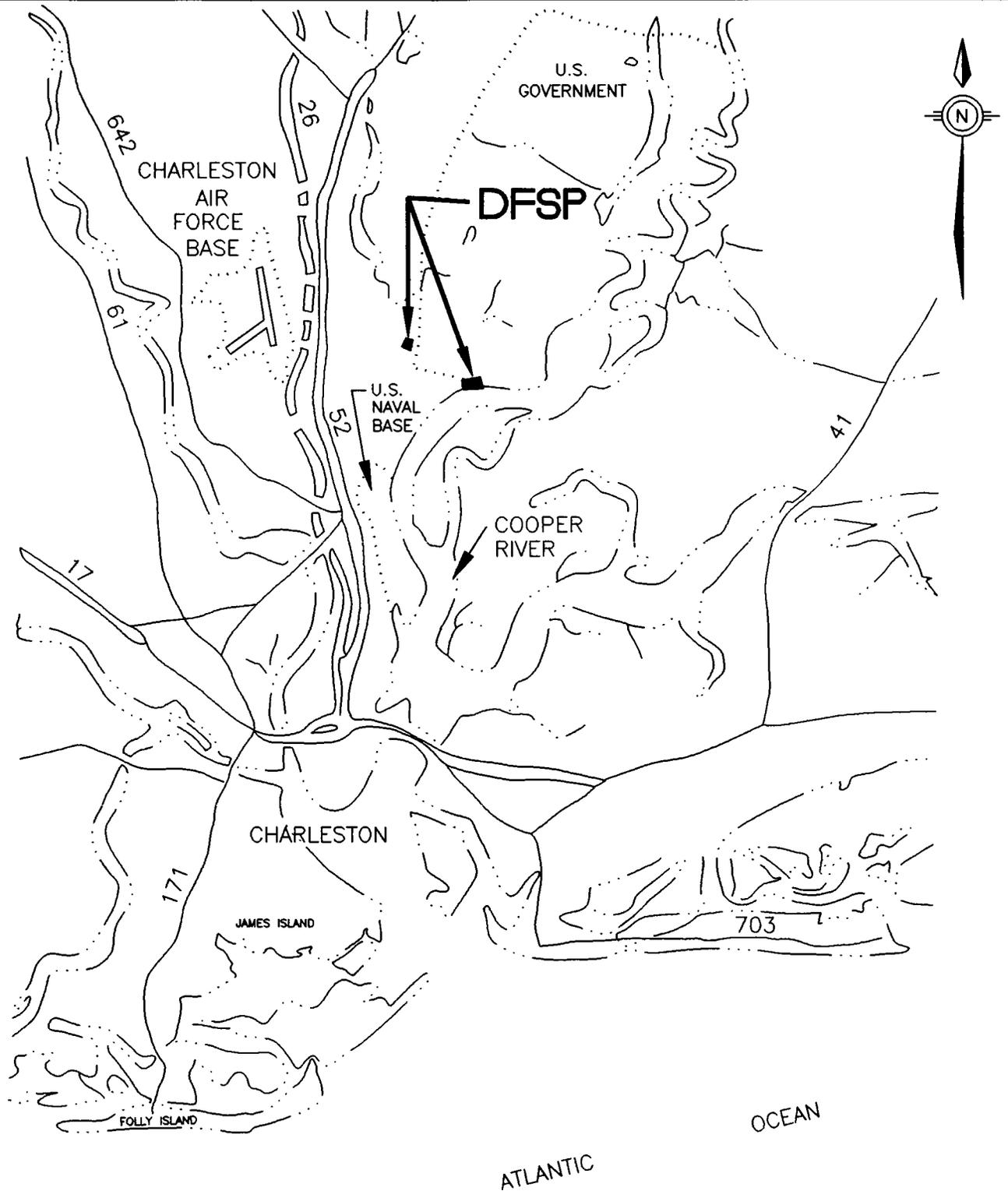
Vessels or barges to be loaded/off-loaded are moored alongside the wharf. A dolphin and mooring finger are downstream the wharf face. Water depth is approximately 29 feet at low tide and 35 feet at high tide, with the total depth varying with siltation along the length of the wharf. A 6-knot current in the area is not unusual.

The DFSP Charleston Fuel Pier pipeline system consists of a tanker and barge off-loading system and gravity-fed barge loading connection (Figures 3 and 4). The tanker off-loading system consists of two 8-inch diameter, FMC Chicksan counterbalanced loading arms connected to the two, 18-inch pipelines, designated A and B. The base of the loading arms is surrounded by a containment area that drains into a sump, which is connected to an oil-water separator and 1,000-gallon slop oil tank. The barge loading system consists of a 6-inch diameter MECO Wheaton counter-balance loading arm connected to pipelines A and B.

Pipelines A and B are used to transfer JP-8 and JP-5 between DFSP Charleston Fuel Pier at the Cooper River Wharf and the DFSP Charleston terminal. Each pipeline is painted silver and labeled with the product carried.

Tankers or barges are grounded/bonded before and during transfer operations with grounding cables provided at each manifold connection. The system has signal lights as visual indicators that a good ground has been achieved (i.e., the red lamp extinguishes and the green lamp lights when a good ground/bond has been achieved).

The DFSP Charleston Fuel Pier Fire Protection System consists of three fire alarm pull boxes (one pull station directly alerts the Naval Weapons Station, South Annex Fire Station), two 150-pound chemical fire extinguishers, and a fire hydrant at the corner of Building 852 (Figure3).



SCALE: NOT TO SCALE

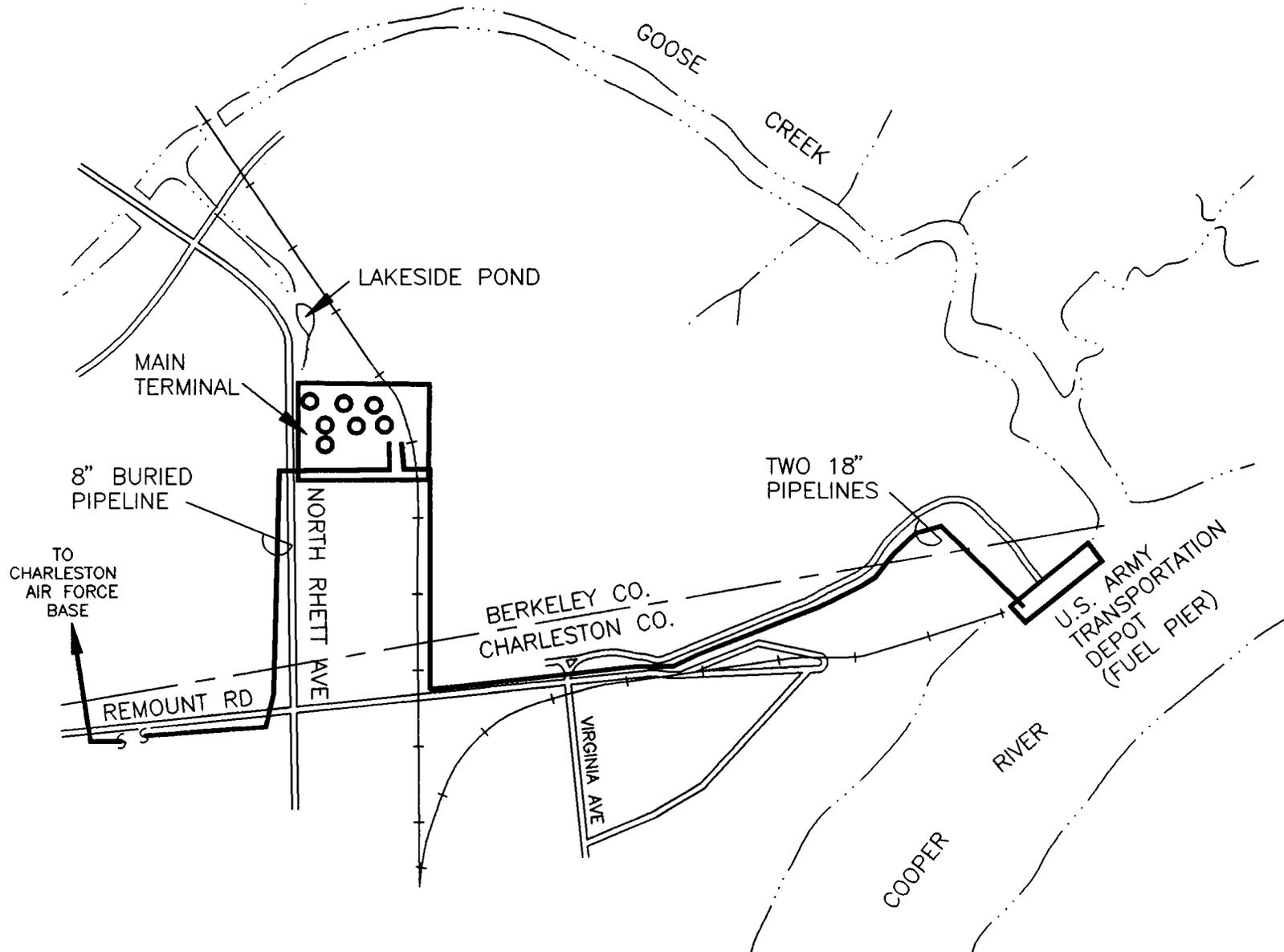


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 ENGINEERING COMMAND
 CHARLESTON, SOUTH CAROLINA
 CONTRACT NO. N62467-89-D-03180107

FIGURE 1
 DFSP CHARLESTON TERMINAL
 CHARLESTON, SOUTH CAROLINA
 GENERAL SITE MAP

DWG DATE: 05/14/96 | DWG NAME: 107DTGM

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SCALE: NOT TO SCALE



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 CHARLESTON, SOUTH CAROLINA
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FIGURE 2
 DFSP CHARLESTON TERMINAL AND
 COOPER RIVER WHARF
 CHARLESTON, SOUTH CAROLINA
 GENERAL SITE LOCATIONS

DWG DATE: 05/30/96 | DWG NAME: 107DTCW

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Figure 3: DFSP Charleston Terminal Fuel Pier at Cooper River Wharf, Charleston, South Carolina.

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Figure 4: Simplified DFSP Charleston Pipeline Diagram at Cooper River Wharf, Charleston, South Carolina.

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4.0 HOURS OF OPERATION

The terminal operating contractor will receive/transfer petroleum products from/to tankers or barges 24-hours per day, seven days per week utilizing the government-owned DFSP Charleston terminal, the DFSP Charleston Fuel Pier header system, and pipeline systems from DFSP Charleston Fuel Pier to the DFSP Charleston terminal.

The U.S. Coast Guard (USCG) Captain-of-the-Port, Charleston, South Carolina, must be notified not later than four hours prior to any petroleum transfer operation in accordance with Title 33 Code of Federal Regulations (CFR) Part 156.118(a). Advanced notice may be made by calling the USCG Marine Safety Office (MSO), Charleston, South Carolina, at (803) 724-7689 (24-hour number).

5.0 SIZE, TYPES, AND NUMBER OF VESSELS THIS FACILITY CAN TRANSFER PETROLEUM PRODUCTS TO AND FROM SIMULTANEOUSLY

The DFSP Charleston Fuel Pier can accommodate **ONLY** the following barges/tankers or loading/off-loading situations:

BARGES: Load or off-load one barge at a time:

- Size: 150' x 50' (1,600 gross tons [gt])
- One product at a time

TANKERS: Off-load only one Tanker at a time

- 700' x 100' (22,100 gt)
- Two products at time

6.0 PRODUCTS TRANSFERRED AT THIS FACILITY

Table 2 JP-8 Product Information	
Chemical Name	JP-8
Name of Cargo (46 CFR 153)	Jet fuel
Appearance of Cargo	Clear and bright
Odor of Cargo	Petroleum-like odor
Hazards Involved in Handling Cargo	Liquid is volatile and emits invisible vapors. Both the liquid and vapor may settle in low areas or travel some distance along the ground or water surface to ignition sources where they may ignite and/or explode.
Safe Handling of Cargo	Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.

Table 2 JP-8 Product Information	
Procedures to Follow If Cargo Leaks or Spills	<ul style="list-style-type: none"> • Stop the source of the leak or spill. • Shut off and eliminate all ignition sources. • Isolate the area. • Recover free product using suitable sorbent and/or mechanical devices. • Minimize breathing of vapors and avoid skin contact. • Keep product out of sewers and watercourses by diking or impounding. • Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.
Procedures to Follow if Personnel Are Exposed	<ul style="list-style-type: none"> • If product is splashed into eyes, flush eyes with clear water for at least 15 minutes or until irritation subsides. If irritation persists, contact a physician. • In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water. • If overcome by vapors, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation or administer oxygen (if available and qualified). • If ingested, DO NOT induce vomiting. Call a physician immediately.
Fire Fighting Procedures	<ul style="list-style-type: none"> • Use water spray, dry chemical, foam, or carbon dioxide to extinguish the fire. Use water to cool fire-exposed containers. • If a leak or spill has not ignited, use water spray to disperse the vapors and to protect responders attempting to stop the leak. • Water spray may be used to flush spills away from exposures. However, all flush water must be trapped/collected to prevent entry into sewers and/or watercourses. • Minimize breathing of gases, vapor, fumes, or decomposition products. • Use supplied-air breathing apparatus for enclosed or confined spaces or as otherwise needed.

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Table 2.1 JP-5 Product Information	
Chemical Name	JP-5
Name of Cargo (46 CFR 153)	Jet fuel
Appearance of Cargo	Clear and bright
Odor of Cargo	Petroleum-like odor
Hazards Involved in Handling Cargo	Liquid is volatile and emits invisible vapors. Both the liquid and vapor may settle in low areas or travel some distance along the ground or water surface to ignition sources where they may ignite and/or explode.
Safe Handling of Cargo	Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.
Procedures to Follow If Cargo Leaks or Spills	<ul style="list-style-type: none"> • Stop the source of the leak or spill. • Shut off and eliminate all ignition sources. • Isolate the area. • Recover free product using suitable sorbent and/or mechanical devices. • Minimize breathing of vapors and avoid skin contact. • Keep product out of sewers and watercourses by diking or impounding. • Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.
Procedures to Follow if Personnel Are Exposed	<ul style="list-style-type: none"> • If product is splashed into eyes, it is not expected to cause prolonged or significant eye irritation or injury. • In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water. • If overcome by vapors, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation or administer oxygen (if available and qualified). • If ingested, may cause stomach irritation, vomiting, diarrhea, increased respiration, adverse effects on the central nervous system such as headache, drowsiness, dizziness, loss of coordination, fatigue, coma, and adverse effects on the heart such as irregular heartbeats. Short-term exposure to similar materials has resulted in adverse effects on the liver and kidney of laboratory animals. • Aspiration Hazard: This material can enter lungs during swallowing or vomiting and may cause acute lung inflammation and damage.

Table 2.1
JP-5 Product Information

Fire Fighting Procedures	<ul style="list-style-type: none">• Use water spray, dry chemical, foam, or carbon dioxide to extinguish the fire. Use water to cool fire-exposed containers.• If a leak or spill has not ignited, use water spray to disperse the vapors and to protect responders attempting to stop the leak.• Water spray may be used to flush spills away from exposures. However, all flush water must be trapped/collected to prevent entry into sewers and/or watercourses.• Minimize breathing of gases, vapor, fumes, or decomposition products.• Use supplied-air breathing apparatus for enclosed or confined spaces or as otherwise needed.
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7.0 MINIMUM NUMBER OF PEOPLE ON DUTY DURING TRANSFER OPERATIONS AND THEIR DUTIES

At least six people shall be on duty when off-loading a barge or vessel or loading a barge, as follows:

- Two qualified Petroleum Handling Personnel on the DFSP Charleston Fuel Pier
- Two qualified Petroleum Handling Personnel at the DFSP Charleston Terminal
- One Quality Surveillance Representative (QSR)
- One Tankerman (supplied by the barge or vessel)

Qualified Petroleum Handling Personnel (Journeyman)

At least two journeymen will be on the DFSP Charleston Fuel Pier at all times during barge or vessel transfer operations. One of these individuals will be designated the person-in-charge (PIC). This individual shall be on the dock at all times and shall supervise all aspects of the transfer operations. If a spill occurs, the PIC shall supervise containment and cleanup. The terminal superintendent or his representative will ensure that these two journeymen are relieved after 12 hours of continuous duty and replaced by two other journeymen.

Before transfer operations can begin, a journeyman will ensure that:

- Warning signs are displayed.
- Repair work on the DFSP Charleston Fuel Pier is secured.
- Dock ground wire is securely bolted to a clean, paint-free surface of the discharge line of the barge or vessel. (Note: Where insulated flanges are installed in the terminal loading/off-loading pipeline[s], do not use the grounding wire.)
- Cargo hoses, off-loading arms, and valves are in the correct position.
- No fire, or smoking, or open flame, are occurring on the fuel pier or near of the loading/off-loading berth.
- Ensure suitable fire equipment is on hand and in working condition prior to fuel operations. Be familiar with equipment operation and point out such equipment to barge personnel.
- Barge or vessel has been reported in readiness for cargo transfer.

Every precaution will be taken to preserve the quality of the cargo. The unloading pipeline will be completely isolated from all other system pipelines.

The barge or vessel will off-load at a maximum rate commensurate with personnel present, equipment available, and terminal capabilities.

One of the journeymen on DFSP Charleston Fuel Pier will maintain a clear and complete log of the transfer operations. The log must include (at a minimum) the date, vessel identification, tank identification, hookup time, transfer start, stop, and total time, flow rates, quantity transferred, water level in storage tanks (before/after transfer), total gallons stripped, the name of the operator, any unusual events, training conducted, weather conditions, and notification regarding visitors.

Before initiating transfer operations, the terminal superintendent and/or one of the journeymen will meet with the barge or vessel's tankerman and initiate the appropriate transfer procedures and schedules and complete the Declaration of Inspection (DOI). DFSP Charleston Fuel Pier requires inspection of the following additional items:

- Transfer headers
- Transfer hoses
- Grounding and static devices
- Product transfer pipelines
- Storage tanks and manifold lines, including grounding devices

In addition to the two journeymen on the DFSP Charleston Fuel Pier, two more journeymen will be on duty at the terminal during all barge or vessel cargo transfers. These two journeymen will accomplish the mandatory terminal functions associated with vessel cargo transfer operations. One of them will inspect the terminal pipelines used to transfer product between a barge or vessel and a receiving terminal storage tank(s) at least once every six hours during transfers. The terminal receiving storage tanks also will be checked during the terminal pipeline inspection. The storage tank gauge will be read to determine that product is being transferred to or from the appropriate storage tank(s). (During fuel transfers, pipelines from the terminal to the DFSP Charleston Fuel Pier are considered part of the internal terminal pipeline system.)

Quality Surveillance Representative

Before a barge or vessel is permitted to discharge cargo, a journeyman will take composite samples of the cargo under the direction of the QSR. The QSR, with the assistance of a journeyman, will perform product identification tests for water and solids (visual) and American Petroleum Institute gravity. The QSR will advise the journeyman concerning the suitability for transfer.

After off-loading, the QSR, with the journeyman's assistance, will inspect the barge or vessel to determine if the tanks have been completely emptied of their contents. Tanks containing product will be gauged and the amount present will be determined, if possible, using the applicable vessel strapping tables.

Tankerman

During a transfer, the barge or vessel tankerman is in charge of operations onboard the barge or vessel. The tankerman is responsible for safely and efficiently discharging cargo from the barge or vessel without loss of product. After pumping begins, the tankerman will check for leaks along barge or vessel fuel transfer lines, pumps, transfer manifolds, and flanges. After pumping is complete, the tankerman will ensure closure of all barge or vessel fuel system valves, disconnect the transfer arm from the transfer manifold, and replace/reinstall all necessary blind flanges. The tankerman connects and disconnects the transfer hose. The tankerman will be afforded an opportunity to compare the receiving tank gaugings to the barge or vessel gauge readings to confirm the amount of product transferred.

8.0 NAMES AND EMERGENCY TELEPHONE NUMBERS

Table 3 Emergency Notification			
Individuals Agencies Response Times*	Response Role	Day Phone	24-Hour Phone
Fire Notification			
ALL LOCAL FIRE DEPARTMENTS	Provide fire suppression equipment and personnel resources	911	911
Medical Notification			
ALL LOCAL HOSPITALS	Medical support	911	911
Police Notification			
ALL LOCAL POLICE	Traffic control Evacuation Crowd control	911	911
Incident/Deputy Incident Commander			
Incident Commander Larry Verhosek Response Time: 30	Incident command and control Facility Qualified Individual	(803) 744-3884	(803) 744-3884 (803) 552-2269 (Night)
Deputy Incident Commander Ron Embry Response Time: 30	Assist with incident command and control Alternate Facility Qualified Individual	(803) 744-3884	(803) 744-3884 (803) 871-0393 (Night)
Immediate Response Team Contact			
Incident Commander Larry Verhosek Response Time: 30 minutes	First responders	(803) 744-3884	(803) 744-3884 (803) 552-2269 (Night)

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
Facility Response/Cleanup Team	Mitigate and clean up spills	See Table 4	See Table 4
Oil Spill Cleanup Organizations			
FENN-VAC (Charleston Industry Liquid Spillage Control Committee) Contact: Russ Perkins Response Time: varies	Provide response equipment and personnel Provide response expertise	(803) 552-8306	(803) 552-8306
NAVSUPSALV Chetam Annex Contact: Paul Hankins Response Time: Being developed	Provide response equipment and personnel Provide response expertise	(703) 607-2758	(703) 607-2758
DFSC Notifications			
DFSC Operations Center Contact: DFSC Duty Officer	Incident Reporting	(703) 767-8320	(703) 767-8320
Agency Notifications			
National Response Center	Receipt of all spill reports and notifies appropriate federal on-scene coordinator (FOSC)		1-800-424-8802 (202) 267-2675
USCG Marine Safety Office, Charleston, South Carolina (Area Committee) USCG is the FOSC for Charleston, South Carolina	Receipt of incident report (follow-up) NRC will forward information to FOSC.	(803) 724-7683	(803) 724-7619 (803) 724-7616 (803) 724-7618
South Carolina Department of Health and Environmental Control	Receipt of spill notification for State of South Carolina	(803) 253-6488	(803) 253-6488
State Emergency Response Commission (SERC) Contact: Mr. Stan McKinney	Receipt of incident report	(803) 734-8020	(803) 734-8020
Local Emergency Response Committee (LEPC) Contact: Berkeley County	Receipt of incident report	(803) 723-9897	—
Local Emergency Response Committee (LEPC) Contact: Charleston County	Receipt of incident report	(803) 554-5951	—

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
Other Fire Resources			
Naval Weapons Station, South Annex Fire Department Response Time: 10	Provide fire suppression equipment and personnel resources	(803) 743-1767	(803) 743-1767
Naval Weapons Station Spill Team (water/land spills) Response Time: 30 minutes +	Provide fire suppression equipment and personnel resources	(803) 764-4010 or 4240	(803) 764-7777 (CDO Phone)
Charleston Naval Shipyard Spill Team (land spills) Response Time: 30 minutes +	Provide fire suppression equipment and personnel resources	(803) 743-5519 or 3452	(803) 743-6444 (Chief of the watch)
Other Medical Resources			
Baker Hospital ^b 2750 Speissegger Drive Charleston, South Carolina 29405	Medical support	(803) 744-2110	(803) 744-2110
Charleston Memorial Hospital ^b	Medical support	(803) 577-0600	(803) 577-0600
Charter Hospital ^b	Medical support	(803) 747-5830	(803) 747-5830
East Cooper Hospital ^b	Medical support	(803) 881-0100	(803) 881-0100
Georgetown Memorial Hospital ^b	Medical support	(803) 527-1341	(803) 527-1341
Grand Strand General Hospital ^b	Medical support	(803) 449-4411	(803) 449-4411
MUSC Hospital ^b	Medical support	(803) 792-2113	(803) 792-2113
Navy Hospital ^b Navy Base Charleston, South Carolina 29418	Medical support	(803) 743-6341	(803) 743-6341
Roper Hospital ^b 316 Calhoun Street Charleston, South Carolina 29401	Medical support	(803) 724-2000	(803) 724-2000

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
St. Francis Xavier Hospital ^b 135 Rutledge Avenue Charleston, South Carolina 29401	Medical support	(803) 577-1000	(803) 577-1000
Trident Hospital ^b 9330 Medical Plaza Drive Charleston, South Carolina 29418-9195	Medical support	(803) 797-7000	(803) 797-7000
VA Hospital ^b 109 Bee Street Charleston, South Carolina 29418	Medical support	(803) 761-8410 (Admin) (803) 761-8750 (Emergency)	(803) 761-8410 (Admin) (803) 761-8750 (Emergency)
Hanahan Fire/EMS ^b	Medical support	(803) 744-4551 (Admin) (803) 744-4073 (Emergency)	(803) 744-4551 (Admin) (803) 744-4073 (Emergency)
Berkeley County EMS ^b	Medical support	(803) 761-8410 (Admin) (803) 761-4357 (Emergency)	(803) 761-8410 (Admin) (803) 761-4357 (Emergency)
Berkeley County Rescue ^b	Medical support	(803) 553-8750 (Admin) (803) 553-8750	(803) 553-8750 (Admin) (803) 553-8750
Charleston County EMS ^b	Medical support	(803) 723-2567 (Admin) (803) 577-7080 (Emergency)	(803) 723-2567 (Admin) (803) 577-7080 (Emergency)
Herbert's Ambulance Service ^b	Medical support	(803) 577-5655 (Admin) (803) 577-5655 (Emergency)	(803) 577-5655
Langston's Convalescent & Transportation ^b	Medical support	(803) 899-5515 (Admin) (803) 899-5515 (Emergency)	(803) 899-5515
Med-U-Care/MUSC ^b	Medical support	(803) 792-3132 (Admin) (803) 792-3131 (Emergency)	(803) 792-3131
Southern Aeromedical ^b	Medical support	(803) 875-0090 (Admin) (803) 875-0090 (Emergency)	(803) 875-0090

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
Westvaco ^b	Medical support	(803) 744-8231 (Admin) (803) 745-3279 (Emergency)	(803) 745-3275
Other Police Resources			
Hanahan Police	Traffic control Evacuation Crowd Control	(803) 747-5711	(803) 747-5711
North Charleston	Traffic control Evacuation Crowd control	(803) 554-9030	(803) 554-9030
NAVBASE Charleston Security	Traffic control Evacuation Crowd control	(803) 743-4890	(803) 743-4890
Charleston AFB Security Police	Traffic control Evacuation Crowd control	(803) 566-3600 or 3624	(803) 566-3600 or 3624
Charleston Police	Traffic control Evacuation Crowd control	(803) 577-7334	(803) 577-7334
SC Highway Patrol	Traffic control Evacuation Crowd control	911 (803) 740-1660	911 (803) 740-1660
SC Law Enforcement Division	Traffic control Evacuation Crowd control	911 (803) 737-9000	911 (803) 737-9000
SC Wildlife Law Enforcement	Traffic control Evacuation Crowd control	911 1-800-922-5431	911 1-800-922-5431
SC SPA Law Enforcement	Traffic control Evacuation Crowd control	(803) 577-8706 (0800 to 1700)	
Berkeley Sheriff Department	Traffic control Evacuation Crowd control	(803) 577-9562 (803) 761-8190	(803) 577-9562 (803) 761-8190
Charleston Sheriff's Department	Traffic control Evacuation Crowd control	911 (803) 554-4700	911 (803) 554-4700
Other Federal Authorities			
FBI	Bombs, intruders, suspected entries	(803) 724-4699 (Local) (803) 254-3001 Columbia	1-800-327-8529 (Toll Free)
Secret Service	Bombs, intruders, suspected entries	(803) 765-5446 (803) 765-5440	(803) 765-5446 (803) 765-5440
U.S. Marshal's Service	Bombs, intruders, suspected entries	(803) 724-4255	(803) 724-4255

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
Other Contractors			
Eason Diving and Marine Response Time: 1-2 hrs to Charleston	Provide additional equipment and personnel resources Have DHEC Hazardous Waste Transport and USCG Mobile Transfer Facility permits`	(803) 722-2454	(803) 722-2454
Coastal Divers and Pollution Corp. Response Time: 6-10 hrs	Provide response equipment and personnel resources Provide response expertise	(912) 944-8832	(912) 944-832
White Stack Tug Co. Response Time: 1-4 hrs to Charleston	Provide tugs ranging from 1,200 to 3,000 HP with trained pilots	(803) 577-6556	(803) 577-6556
Richards Launch & Towing Service, Inc. Response Time: 1-3 hrs to Charleston	Provide additional boom and 2 2,000-HP tugs with trained pilots	(803) 577-4949	(803) 577-4949
Other Technical Support			
Charleston Harbormaster	Waterborne assistance	(803) 577-8192	(803) 577-8192
Charleston Pilots	Ship and barge movement	(803) 577-6695	(803) 577-6695
Technical Spill Response Support USCG Pacific Strike Team Response Time: 6-2 hrs	Onsite monitoring, situation evaluation, and provide spill response equipment	(919) 331-6000	(919) 331-6000

Table 3 Emergency Notification			
Individuals Agencies Response Times^a	Response Role	Day Phone	24-Hour Phone
Weather			
Local Weather Charleston AFB	Weather information	(803) 566-5079	(803) 566-5079
Local Weather Department of Commerce National Weather Service	Weather information Public forecast	(803) 744-3207	
Local Weather Department of Commerce National Weather Service	Marine weather forecast	(803) 744-5859	
Local Weather Department of Commerce National Weather Service	Weather forecasts Live weather forecasts	(803) 744-0303	(803) 744-0303

Last Updated: October 1995

Notes:

- ^a All times in minutes unless otherwise indicated
- ^b Hospitals in the Charleston area are not equipped for in-house decontamination. Assure field decontamination prior to transport.

**Table 4
Facility Immediate Response Team ***

Name	Day Phone	24-Hr Phone	Response Time (Min)	Response Job	Training Type	Training Date
Larry Verhosek	(803) 744-3884	(803) 552-2269 (H)	30	Qualified Individual	Emergency Response Awareness Level (8 hrs)	11/30/92
Ronald Embry	(803) 744-3884	(803) 871-0393 (H)	30	Alternate Qualified Individual	Emergency Response Awareness Level (8 hrs)	11/30/92
Roland White	(803) 744-3884	(803) 797-2932 (H)	30	Operator/ Guard	Emergency Response Awareness Level (8 hrs)	11/30/92
Jerry Wood	(803) 744-3884	(803) 554-7651 (H)	30	Operator/ Guard	Emergency Response Awareness Level (8 hrs)	11/30/92
Simon Mills	(803) 744-3884	(803) 767-1882 (H)	30	Operator/ Guard	Emergency Response Awareness Level (8 hrs)	11/30/92
Ronald Todd	(803) 744-3884	(803) 553-6469 (H)	30	Maint. Mechanic		
Ken Wheeler	(803) 744-3884	(803) 899-5269 (H)	45	Operations	Emergency Response Awareness Level (8 hrs)	11/30/92
Scott Lorick	(803) 744-3884	(803) 863-0932 (H)	30	Operator/ Guard Security/ Firewatch (Part time)		
George West	(803) 744-3884	(803) 821-0043 (H)	30	Operator/ Guard Security/ Firewatch	Emergency Response Awareness Level (8 hrs)	11/30/92
Robert Burkett	(803) 744-3884	(803) 552-9141 (H)	30	Operator/ Guard	Emergency Response Awareness Level (8 hrs)	11/30/92
Rex Lilard	(803) 744-3884	(803) 875-4666 (H)	30	Security/ Firewatch		

Table 4 Facility Immediate Response Team ^a						
Name	Day Phone	24-Hr Phone	Response Time (Min)	Response Job	Training Type	Training Date
Mike Guertin	(803) 744-3884	(803) 851-6984 (H)	30	Operator/ Guard Security/ Firewatch (Part time)		
Donald Mathews	(803) 744-3884	(803) 552-7888 (H)	30	QSR/COR		
Christopher Turberville	(803) 744-3884	(803) 871-4008 (H)	30	Guard/ Security Firewatch		
Charlie Owens	(803) 744-3884	(803) 553-2604 (H)	30	Guard/ Security Firewatch		

Notes:

- ^a The Facility Response Personnel list fluctuates frequently and is updated regularly. The most recent list is maintained by the Guard post. The above listing is as of October 1995.

9.0 WATCHMAN DUTIES

When a barge or tank vessel that contains any quantity of a petroleum product that is more than normal clingage and unpumpable bilge or sump residue is moored at the DFSP Charleston Fuel Pier, the barge or vessel crew is responsible for surveillance and security.

10.0 COMMUNICATION SYSTEM

Communications between personnel involved in transfer operations are maintained using voice or two-way safe portable radios for dock and vessel personnel. Radios and an explosion-proof telephone ("hotline") are used to communicate between the dock personnel and the terminal. A radio base station is in the DFSP Terminal Main Office. The nameplate data indicate that the portable radios are intrinsically safe in accordance with 49 CFR 110.1510(1) and are effective during all phases of the transfer operations.

Table 5 Typical Hand-Held Radio Nameplate Data
Motorola Corporation, Inc. Handi-Talkie FM Radio FCC ID AZ489FT Model H33LCB1124A Intrinsically Safe Non-incentive Class I and II Division 1 and 2 Groups D, F, & G

Last Updated: May 1996

Table 6 Communications Equipment						
Type	Assigned To	Call Sign or Phone Number	Primary Network or Frequency	Brand and Model	Charger or Storage Location	Op. Status
Hand-held Radios	Management Engineering Associates, Inc.	1	141.100 MHz	Motorola HT440	DFSP Office	Operable
	Management Engineering Associates, Inc.	2	141.100 MHz	Motorola HT440	DFSP Office	Operable
	Management Engineering Associates, Inc.	3	141.100 MHz	Motorola HT 440	DFSP Office	Operable
	Management Engineering Associates, Inc.	4	141.100 MHz	Motorola HT 440	DFSP Office	Operable
Car/Truck Radios	None					
Base Station Radio	Management Engineering Associates, Inc.	Main Office	141.100 Mhz	Motorola L43TRB	DFSP Office	Operable
Cellular Phones	Management Engineering Associates, Inc.	(803) 860-0553	N/A	Shinton CH 8900	DFSP Office	Operable
Other	Beeper: Don Mathews	(803) 569-9197	N/A	1st Page	DFSP Office QAR	Operable
Point of Contact: Larry Verhosek Day Phone: (803) 744-3884 24-Hour Phone: (803) 744-3884						
Comments: None						
Warning: Only "intrinsically safe" hand-held radios and rechargeable battery packs should be used during spill response. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe."						
"Intrinsically safe" Motorola hand-held radios and battery packs are marked with green dots on the back, at the junction of the radio body and its batter pack; if BOTH dots are not present, the radio is not "intrinsically safe."						

Last Updated: October 1995

11.0 PERSONNEL SHELTER

The Personnel Shelter is at the end of the wharf adjacent to the barge connection piping system and contains fire extinguishers and a fuel sampling station. This building can also provide shelter for hose watch personnel. Voice contact to the DFSP Charleston Terminal is by voice hand-held, two-way radios and/or by commercial phone by calling 744-3884 or the "hotline" telephone system.

12.0 DRIP AND DISCHARGE COLLECTION SYSTEM

DFSP Charleston Fuel Pier manifold, loading arm areas, and dock slop tank are within concrete containments. Each containment area is piped to a 10 gallon per minute (gpm) oil-water separator to the north of Building 3142. Reclaimed oil is piped to a 1,000-gallon storage tank and water is discharged to the site reclamation system. No vessel slops are received at this facility.

13.0 DESCRIPTION AND LOCATION OF EMERGENCY SHUTDOWN SYSTEMS

The DFSP Charleston Fuel pier emergency shutdown system consists of:

- Dockside manifolds — 12 inch rising stem, manual, seal plug valves on each line, upstream of the 6-inch dock manifold valve (barge off-loading/loading) and the 8-inch, quick-closing loading arm valves (tanker off-loading). All are manually operated by the dock watch.
- Off-dock manifolds — 18-inch electrical, seal plug valves on lines from the DFSP Charleston Terminal (pipelines A and B). Operated by the hose watch.
- Dockside loading arms — 8-inch spring-loaded check valves, one per line used during receipt from tankers or barges.

Continuous communications by hand-held radios (voice) is established during transfer cycles between the vessel's person-in-charge and the dock watch. This enables the operators to immediately stop all flow in an emergency. The valves on the loading arms can be used to stop the flow in an emergency, backed up by the manual closure of the 12-inch and electrical closure of the 18-inch in-line valves. Additionally, loading and off-loading operations control is provided by the shore tank operators closing manifold room valves and tank valves. These operators are also in voice contact with the ship's personnel and dockwatch via hand-held radios. This permits personnel to immediately communicate the need to terminate transfer operations.

14.0 MONITORING DEVICES

Monitoring devices described in 33 CFR 154.525 are not required for this facility.

15.0 SPILL CONTAINMENT EQUIPMENT

Table 7 Sorbents				
Stockpiled Item	Stock Number	Stockpile Location	Purchase Unit	Units Available
Sorbent Boom (white)	3M	DFSP Warehouse TC Dock	10 inch x 4 inch x 20 feet	10 Warehouse 20 TC Dock
Sorbent Boom (green)	9330-01-334-5036	None	60-ft package	None
Sorbent Pad (34"x38")	9330-01-336-5074	DFSP Terminal	bale	4 bales
Sorbent Pad (17" x19")	9330-01-219-7414	None	bale	None
Sorbent Pillows	Open Purchase	DFSP Terminal	bale	6
Point of Contact: Larry Verhosek Day Phone: (803) 744-3884 24-hr: (803) 744-3884				
Comments: Stockpiles are replaced on an "as used basis" to maintain inventories.				
Purchase of expendable materials is on-going. Stocks are replenished as needed. "Year of purchase" information is not available.				

Last Updated: October 1995

Table 8 Tool and Supplies Inventory			
Stockpiled Item	Stock Number or Description	Location	Units on Hand
Volt OHMS Meter (Weston)	-	-	1
Grease Gun (2 reg - 1 heavy duty)	-	-	3
Cathodic Protection Meter (Asra)	-	-	1
Cathodic Protection Meter (L.C. Miller Model MCM LC4)	-	-	1
Explosive Meter (type 2A Exp)	83832	-	1
Acetylene Tank w/wet gauge & hose, handle, 2 tips A-3 and A-5	-	-	1
36" Alum. pipewrench	-	-	2
Pipe Vise (Rigid)	-	-	1
Pipe Cutter (Rigid)	-	-	1
Set Pipe Cutting Dies (3/8" through 1" Rigid)	-	-	1
Drill Motor (3/8")	-	-	2
Set 3/4" Drive Sockets w/ratchet, pull handle, and extension (1 old and 1 new)	-	-	2
Set 1/2" Drive Socket Set w/ratchet, pull handle, and extensions	-	-	1
3/8" drive socket set w/ratchet, pull handle, and extensions	-	-	1
Cable Wench 4 ton	-	-	1
1/2" Drive Speed handle	-	-	1
12" Pipe Wrench	-	-	1
18" Pipe Wrench	-	-	1
14 pc Craftsman Screwdriver set	-	-	1
Portable Air tank	-	-	1
MSO Micrograd Monitor (Detector)	-	-	1

Table 8 Tool and Supplies Inventory			
Stockpiled Item	Stock Number or Description	Location	Units on Hand
Saddle Clamps (Size 4", 6", 8", and 12")	-	-	2 each
Shovels - Square pointed and round pointed	-	-	4
Rakes	-	-	2
Hoes	-	-	2

Last Updated: October 1995

Table 9 Personal Protective Equipment	
Item ^a	Units on Hand
Chemical-Resistant Clothing	None (See comments)
Chemical-Resistant Boots/Shoes	None (see comments)
Chemical-Resistant Outer Gloves	None (see comments)
Safety Goggles	None (see comments)
Point of Contact Larry Verhosek and/or Security Guards Day Phone: (803) 744-3884: 24-Hour Phone (803) 744-3884	
Comments: ^a No extra PPE is owned by DFSP Charleston. Purchase of these items is ongoing; stocks are replenished as needed.	

Last Updated: October 1995

Table 10 Miscellaneous Capital Equipment			
Equipment	Number on Hand	Type	Brand/Model
Bulldozers	0	-	-
Backhoes	0	-	-
Mis. Earth-moving	0	-	-
Other	0	-	-
Point of Contact: Larry Verhosek Day Phone: (803) 744-3884 24-Hour Phone: (803) 744-3884			
Comments: No miscellaneous capital equipment is onsite.			

Last Updated: October 1995

16.0 FIRE EXTINGUISHING EQUIPMENT

The DFSP Charleston Fuel Pier is equipped with two dry chemical powder cars and a fire hydrant located at the rear of Building 3142. Response time for the Charleston Fire Department is approximately 30 minutes and 10 minutes for the Naval Weapons Station, South Annex Fire Department.

17.0 MAXIMUM SYSTEM PRESSURE

The maximum system pressure is 100 pounds per square inch gauge. There are no relief valves (except for the 1-inch expansion valves in the 18-inch lines). The 1-inch valves bypass between the 8-inch and 18-inch lines.

18.0 PROCEDURES FOR TRANSFERRING OIL

Transfer will not begin until the shoreside facility and barge or vessel's representatives have completed the pretransfer conference, DOI (Table 11), and Ship/Shore Safety Check List (Table 12); posted warning signs; completed all required grounding; checked all shoreside facilities; and established communications between all involved parties. Prior to hose hook up, ensure that all shoreside and vessel valves are closed. **Note: DFSP Charleston Terminal off-loads tankers, tank-ships, or barges using the vessel's pumps. But, it can only load barges due to time constraints, since all loading operations are gravity-flow only and not pump-assisted.**

Table 11 Declaration of Inspection Prior to Bulk Cargo Transfer			
Date	Time	Location	
Receiving Unit (Name and Address)			
Delivering Unit (Name and Address)			
Federal regulations require that the following inspections and activities be executed by persons in charge (PICs) of oil transfer operations. The items are listed in 33 CFR 156.120 (a-z), Requirements for Oil Transfer, and parts of 46 CFR 35, Operations . The spaces adjacent to items on the list are provided to indicate that the detailed requirement has been met. Retain original on file at the terminal for one month from date of completion and a duplicate to be retained by the vessel.			
		Deliverer	Receiver
1. RED WARNING SIGNS AND SIGNALS [35.30-1(a)(b)(c)]-- must be displayed and visible from all points around the vessel. At night, when transferring at anchor, the red light will not be displayed.			
2. FIRES, FLAMES, SMOKING AND MATCHES [35.30-5(b)(c)(d)(e)]--if permitted, must be managed so vapors from Grades A, B, or C cargo do not reach them. Smoking areas must be designated, inspected, and found safe.			
3. REPAIR WORK [35.35-20(b)]--repair work in the way of any cargo spaces must be approved by the PIC.			
4. VESSELS COMING AND/OR REMAINING ALONGSIDE [35.35-42(a)(b)]--must have the approval of the PICs during transfers of Grades A, B, or C cargo.			
5. THE MOORING [156.120(a)]--must ensure the safety of the vessel and the transfer device through all conditions of tide and weather.			
6. THE TRANSFER DEVICE [156.120(b)(c)(g)(i)(j)]--must, when connected, be under no strain with the vessel at the limits of its moor, be properly supported, meet the requirements of 154.500, be blanked when not used, and be connected to fixed piping or be equipped with an automatic back pressure shutoff nozzle.			
7. THE TRANSFER SYSTEMS [156.120(e)(f)]--must be aligned to permit the flow of product and closed or blanked off when not in use, as set forth in 154.120 and 155.805.			
8. THE OVERBOARD DISCHARGES/SEA SUCTIONS [156.120(h)]--must be closed, lashed, and sealed during the transfer.			
9. SCUPPERS AND DRAINS [156,120(o)]--must be mechanically closed as required by 155.310.			
10. THE CONNECTIONS [156,120(k)(p)]--must be leak-free, expect packing glands may leak, providing the leakage does not exceed containment and meets requirements of 156.130.			
11. DISCHARGE CONTAINMENT [156.120(m)(n)]--must be available or deployed, as applicable, as required in 154.545, and drip pans or drain tubs will be in place as required in 155.130.			
12. MONITORING DEVICES [156.120(l)]--must be in place and operable as required by 154.525.			
13. COMMUNICATIONS [156.120(q)]--must be maintained throughout the transfer operations as required by 155.785.			
14. THE EMERGENCY SHUTDOWN [156.120(r)]--must be tested and found operable prior to starting the transfer and meet the requirements of 155.780.			

Table 11				
Declaration of Inspection Prior to Bulk Cargo Transfer				
15. THE PICs [156.120(s)(t)]--of the delivering and receiving units must be at the oil transfer of, and immediately available to oil transfer personnel, have available the operations manual or procedures manual, as appropriate, and operation in a manner consistent with those documents.				
16. SUFFICIENT PERSONNEL [156.120(u)]--must be on duty and conduct the operation as instructed in the operations manual of transfer procedures.				
17. LANGUAGE(S) USED [156.120(v)]--must be common to both PICs or an interpreter available at the transfer site who fluently speaks both languages.				
18. AGREEMENT TO BEGIN TRANSFER [156.120(x)]--must be reached by the PICs, and both of them must sign both DOIs prior to commencement of transfer.				
19. THE LIGHTING [156.120(y)(z)]--must meet the requirements in 155.790 between sunset and sunrise.				
20. PRETRANSFER CONFERENCE [156.120(w)]--must take place prior to the transfer and include discussion of:				
(a) The products to be transferred.				
(b) The sequence of transfer operations**				
(c) The name, title, and location of persons participating in the transfer				
(d) The critical details of both systems				
(e) The critical stages of the transfer operation				
(f) The federal, state, and local regulations that apply to oil transfer operations				
(g) Emergency procedures for both systems				
(h) Discharge containment procedures				
(i) Discharge reporting procedures				
(j) Watch and shift change arrangements				
(k) Transfer shutdown procedures				
21. THE TRANSFER RATE [156.120(w)(3)]--the delivering unit may adjust its discharge pressure. (NOTE: A DELIVERING BARGE CANNOT GUARANTEE A SPECIFIC TRANSFER RATE.)				

**** PRODUCT TRANSFER SEQUENCE**

	PRODUCT	QUANTITY	PSI
First			
Second			
Third			

	SIGNATURE	TITLE	TIME/DATE
Delivering PICs			
Receiving PICs			

**Table 11 (Continued)
Declaration of Inspection Prior to Bulk Cargo Transfer (Continued)**

DATE:		
TERMINAL:		
BERTH:		
PORT:		
NAME OF VESSEL:		
<p>Prior to commencing transfer operations the PICs on the dock and on Vessel are to read and indicate compliance with the following statements.</p> <p>The original is to be retained at the terminal for one month and a duplicate is to be retained by the vessel.</p> <p>The following requirements are set forth in detail in 33 CFR 156.150 and 33 CFR 35.35-30.</p>		
	Vessel	Dock
1. Vessel's mooring are strong enough for hold through all expected conditions of tide, draft, drift, etc., during transfer operation [156.120(a)].		
2. All sea suction and overboard valves are closed and lashed [156.120(g)].		
3. Discharge containment facilities are in place and all scuppers and drains tightly closed [156.120(j)(e)].		
4. All deck scuppers are securely plugged [156.120(k)].		
5. Warnings are displayed as required by 46 CFR 35.35-30.		
6. There are no fires or open flames on deck or in any compartment which are located on, facing, open, and adjacent to the main deck on which cargo connections have been made [35.35-30].		
7. Boiler and galley fires have been inspected and may be burned with safety [36.35-30].		
8. Hoses and loading arms are of sufficient length and properly supported to permit vessel to move within length of mooring without straining couplings [156.120(d), 156.170, 156.120(b)(c)].		
9. All parts of transfer system not being used are blanked or shut off [156.120].		
10. All cargo/bunker hoses are in good condition with proper couplings made up and the hose test record is available for inspection [156.120(c) and 156.130].		
11. Communication has been established between the vessel and the facility in a language understood by both [156.120(m)(p)].		
12. The emergency means of shutdown is operable and its operation is understood by the deck officer in charge and by appropriate terminal personnel [156.120(n)].		
13. The cargo hoses are connected to fixed cargo piping on the vessel and terminal [156.120(f)].		
14. Any repair work being done in way of cargo areas has been inspected to determine that it can be safely done during oil transfer operations [35.30-35].		
15. Designated smoking areas have been assigned where smoking will be permitted [35.35-30].		
16. The vessel and terminal will be adequately lighted during transfer operations from sunset to sunrise [156.120(f)].		
17. Both vessel and terminal personnel are aware of federal, state, and local regulations applying to oil transfer and their penalties [156.120].		
18. There will be a designated person in charge on duty at all times during the transfer operation [156.120].		

**Table 11 (Continued)
Declaration of Inspection Prior to Bulk Cargo Transfer (Continued)**

19. There will be sufficient terminal and vessel personnel on duty at all times to tend moorings, hoses, emergency shutdowns, make inspections and take appropriate action in an emergency [156.120(o)(s)].		
20. There is a clear understanding of transfer, emergency shut down, discharge containment, discharge reporting, and cleanup procedures [156.120(g)].		
21. There is a clear understanding of shift and watch arrangements [156.120].		
22. There is a clear understanding between the vessel and the terminal of the sequence and identity of the products to be transferred, the transfer rate and any particulars of the transfer and receiving system and the critical stages of the transfer operation. Discussions have been held which cover the name, title, and location of each person participating in the transfer operation as well as the plan of transfer and all is clearly understood by persons in charge from both the terminal and the vessel [156.120(q)].		
23. All transfer systems are properly lined up to allow the flow of cargo for the commencement of transfer operations [156.1209(d)].		
24. The persons in charge on the vessel and the terminal agree that transfer operations are ready to begin [156.120(r)].		
<p>Declaration: We have checked, where appropriate jointly, the items on this checklist, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge, and arrangements have been made to carry out repetitive checks as necessary.</p>		
For Ship		For Terminal
Name:		Name:
Rank:		Position:
Signature		Signature:

Time:
Date:

**Table 12
Ship/Shore Safety Checklist**

SHIP'S NAME				
BERTH		PORT		
DATE OF ARRIVAL	TIME OF ARRIVAL	LMT	GMT	
INSTRUCTIONS FOR COMPLETION				
The safety of operations requires that all question should be answered affirmatively. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions to be taken between the ship and terminal. Where any question is not considered to be applicable, a note to that effect should be inserted in the remarks column.				
☐ – This symbol in the columns "ship" (S) and "terminal" (T) indicates that checks shall be carried out by the party concerned.				
	Item	S	T	Remarks
1.	Is the ship securely moored?	☐	☐	
2.	Are emergency towing wires correctly positioned?	☐	☐	
3.	Is there safe access between ship and shore?	☐	☐	
4.	Is the ship ready to move under its own power?	☐		
5.	Is there an effective deck watch in attendance on board and adequate supervision on the terminal and on the ship?	☐	☐	
6.	Is the agreed ship/shore communication system operative?	☐	☐	
7.	Have the procedures for cargo, bunker, and ballast-handling been agreed?	☐	☐	
8.	Has the emergency shutdown procedure been agreed?	☐	☐	
9.	Are fire hoses and fire fighting equipment on board and ashore positioned and ready for immediate use?	☐	☐	
10.	Are cargo and bunker hoses/arms in good conditions and properly rigged and, where appropriate, certificates checked?	☐	☐	
11.	Are scuppers effectively plugged and drip trays in position, both on board and ashore?	☐	☐	
12.	Are unused cargo and bunker connections blanked?	☐	☐	
13.	Are sea and overboard discharge valves, when not in use, closed and lashed?	☐	☐	
14.	Are all cargo and bunker tank lids closed?	☐	☐	
15.	Is the agreed tank venting system being used?	☐	☐	
16.	Are flashlights of an approved type?	☐	☐	
17.	Are portable VHF/UHF transceivers of an approved type?	☐	☐	
18.	Are the ship's main radio transmitter aerials earthed and radars switched off?	☐		
19.	Are electric cables to portable electrical equipment disconnected from power?	☐	☐	
20.	Are all external doors and ports in the accommodation leading onto or overlooking the tank deck closed?	☐	☐	
21.	Are air conditioning intakes which may permit the entry of cargo vapors closed?	☐	☐	
22.	Are smoking requirements being observed?	☐	☐	
23.	Are the requirements for the use of galley and other cooking appliances being observed?	☐	☐	
24.	Are naked light requirements being observed?	☐	☐	
25.	Is an emergency escape possible?	☐	☐	
26.	Are sufficient personnel on board and ashore to deal with an emergency?	☐	☐	
27.	Are adequate insulating means in place in the ship/shore connection?	☐	☐	
28.	Have measures been taken to ensure sufficient pumproom ventilation?	☐	☐	

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18.1 Procedures for Off-loading Tankers or Tank Ships

The following procedures will be followed for off-loading tankers or tank ships:

- **Coordinate** with the QSR on which tanks will store the fuel being delivered.
- **Check** that all fire alarm pull boxes on the DFSP Charleston Fuel Pier are unlocked and ready for use in an emergency.
- **Gauge** the receiving tank for fuel and water.
- **Ensure** all valves are closed before proceeding with valve alignment.
- **Align** the DFSP Charleston terminal valves to receive via pipeline A or B.

When off-loading JP-8 using Pipeline A, the following DFSP Terminal alignment is used:

- **Close** 18-inch valves 18V-205 and 8V-206 on the B and C lines.
- **Open** 18-inch valve 18V-204 on the A line.
- **Open** 18-inch valve at the selected JP-8 tank.

When off-loading JP-5 using Pipeline B, the following DFSP Terminal alignment is used:

- **Close** 18-inch valves 18V-204 and 28V-206 on the A and C lines.
- **Open** 18-inch valves 18V-205 (manual) and 18V-202 (motorized) on the B line.
- **Open** 18-inch valve at the selected JP-8 tank.

Perform the following steps once the tanker or tank ship has arrived and is properly secured and positioned for fuel transfer operations.

- **Check** the bonding cable switch for the “off” position.
- **Check** the bonding cable and clamps for good condition.
- **Attach** the bonding cable to the tanker or tank ship, ensuring a good metal-to-metal connection.

WARNING: Off-loading of the tanker or tank ship shall not commence unless a good ground is achieved and the green indicator light is on.

- **Close** the bonding switch.
- **Verify** that the green bonding light is illuminated.

- **Verify** with a visual check that the loading arm is in good condition.
 - **Check** the swivel joint for leaks and ease of movement.
 - **Check** the O-ring on the quick-connect fitting.

WARNING: Use a spud wrench to tighten quick-connect fitting ears.

- **Place** drip pans under the loading arms and make connections.
 - **Attach** both loading arms if transferring JP-8 and the tanker or tank ship is so equipped.
 - **Attach** only the north arm FD-LA-01 if transferring JP-5.
- **Assist** the QSR in checking the off-loading documents (Table 11) to completely identify the shipment.

WARNING: All personnel shall be grounded before boarding the vessel to prevent a static electrical discharge from igniting fuel vapors.

- **Grasp** the bonding wire, grounded hand rails, or other grounded surface with a bare hand before boarding or opening the hatch cover.
- **Verify** that all personnel handling fuel are grounded, and then open the hatches.
- **Take all-level samples and any other samples requested by the QSR.**
- **Determine** fuel quantities in vessel compartments.
- **Line up** gravitometer.

When off-loading JP-8 via one loading arm and pipeline A, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-112 on the B line by placing the switch in the “Close” position.
- **Close** 12-inch B line dock valve 12V-110 and 8-inch JP-5 valve 8V-106 from the loading arm to the B line.
- **Open** 18-inch motor-operated valve 18V-113 by placing the switch in the “Open” position.

- **Open** the 12-inch dock valve 12V-111 and the 12-inch valves 12V-105/107 from the loading arm being used.
- **Leave** 8-inch loading valves 8V-101/102 closed until final approval has been given by the QSR and the vessel is ready to off-load.

When off-loading JP-8 via two loading arms, and pipeline A, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-112 on the B line by placing the switch in the “Close” position.
- **Close** 12-inch B line dock valve 12V-110 and 8-inch JP-5 valve 8V-106 from the loading arm to the B line.
- **Open** 18-inch motor-operated valve 18V-113 by placing the switch in the “Open” position.
- **Open** the 12-inch dock valve 12V-111 and the 12-inch valves 12V-105 and 107 from the loading arms.
- **Leave** 8-inch loading valves 8V-101 and 102 closed until final approval has been given by the QSR and the vessel is ready to off-load.

When off-loading JP-5 through pipeline B, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-113 on the A line by placing the switch in the “Close” position.
- **Close** 12-inch A line dock valve 12V-111 and 8-inch JP-5 valves 8V-105 and 107 from the loading arms to the A line.
- **Open** 18-inch motor-operated valve 18V-112 by placing the switch in the “Open” position.
- **Open** the 12-inch dock valve 12V-110 and the 8-inch valve 8V-106 from the loading arms.
- **Leave** 8-inch loading valve 8V-102 closed until final approval has been given by the QSR and the vessel is ready to off-load.
- **Secure** authorization from the QSR that all identification tests and quantities are in order and product is acceptable for receipt.

- **Open** 8-inch unloading valves 8V-101 and/or 102 if off-loading JP-8 and using one or two loading arms, and only valve 8V-102 if off-loading JP-5.
- **Direct** tanker or tank ship personnel to commence off-loading.
- **Check** receiving tanks, pipelines, and all connections for leaks immediately when off-loading commences.
- **Inspect** pipeline every six hours from dock to receiving tank while off-loading is in progress.
- **Record** events, times, and circumstances on vessel worksheet.
- **Monitor and record** gravity of material on Discharge Log once per hour while receiving.
- **Inspect** receiving tank and record gauge reading and dock pressure hourly and record on Receiving Vessel Visual Gauge Reading worksheet.
- **Determine**, with the QSR, the need for injection of antistatic additive into receipt fuel.

Note: The additive blend in the injection tank shall be a mix of 9 gallons of fuel to 1 gallon of additive chemical.

- **Inject** antistatic additive, as directed by the QSR, into receipt fuel while monitoring the injection system on an hourly basis.
- **Shut down** antistatic injection when complete.
- **Obtain 1-gallon line samples as specified by the QSR.**
- **Notify** the Terminal Superintendent and the QSR an hour prior to completion of off-loading.

Valves must be aligned appropriately at the terminal to direct flow to the desired storage tank. See *DFSP Charleston Operations and Maintenance Manual Vol. II*, Section 6, WHOP Marine Receipts, for alignment of tank manifolds.

18.2 Sequence Procedures for Off-loading Barges

The following procedures will be followed for off-loading barges:

- **Coordinate** with the QSR on which tanks will store the fuel being delivered.

- **Check** that all fire alarm pull boxes on the DFSP Charleston Fuel Pier are unlocked and ready for use in an emergency.
- **Gauge** the receipt tank for fuel and water.
- **Ensure** all valves are closed before proceeding with valve alignment.
- **Align** the DFSP Charleston terminal valves to receive via pipeline A or B.

When off-loading JP-8 using Pipeline A, the following DFSP Terminal alignment is used:

- **Close** 18-inch valves 18V-205 and 8V-206 on the B and C lines.
- **Open** 18-inch valve 18V-204 on the A line.
- **Open** 18-inch valve at the selected JP-8 tank.

When off-loading JP-5 using Pipeline B, the following DFSP Terminal alignment is used:

- **Close** 18-inch valves 18V-204 and 28V-206 on the A and C lines.
- **Open** 18-inch valves 18V-205 (manual) and 18V-202 (motorized) on the B line.
- **Open** 18-inch valve at the selected JP-8 tank.

Perform the following steps once the barge has arrived and is properly secured and positioned for fuel transfer operations.

- **Check** the bonding cable switch for the “off” position.
- **Check** the bonding cable and clamps for good condition.
- **Attach** the bonding cable to the barge, ensuring a good metal-to-metal connection.

WARNING: Off-loading of the barge shall not commence unless a good ground is achieved and the green indicator light is on.

- **Close** the bonding switch.
- **Verify** that the green bonding light is illuminated.

- **Verify** with a visual check that the loading arm is in good condition.
 - **Check** the swivel joint for leaks and ease of movement.
 - **Check** the O-ring on the quick-connect fitting.

WARNING: Use a spud wrench to tighten quick-connect fitting ears.

- **Place** drip pans under the loading arm and make connections.
 - **Attach** the loading arm.
- **Assist** the QSR in checking the off-loading documents (Table 11) to completely identify the shipment.

WARNING: All personnel shall be grounded before boarding the barge to prevent a static electrical discharge from igniting fuel vapors.

- **Grasp** the bonding wire, grounded hand rails, or other grounded surface with a bare hand before boarding or opening the hatch cover.
- **Verify** that all personnel handling fuel are grounded, and then open the hatches.
- **Take all-level samples and any other samples requested by the QSR.**
- **Determine** fuel quantities in vessel compartments.
- **Line up** gravitometer.

When off-loading JP-8, via pipeline A, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-112 on the B line by placing the switch in the “Close” position.
- **Close** 12-inch B line dock valve 12V-110 and 8-inch JP-5 valve 8V-106 from the loading arm to the B line.
- **Close** 8-inch JP-8 valves 8V-107 and 8V-105 from the tanker loading arm to the A line.
- **Open** 18-inch motor-operated valve 18V-113 by placing the switch in the “Open” position.

- **Open** the 12-inch dock valve 12V-111.
- **Leave** 6-inch loading valve 8V-108 closed until final approval has been given by the QSR and the tanker is ready to off-load.

When off-loading JP-5 through pipeline B, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-113 on the A line by placing the switch in the “Close” position.
- **Close** 12-inch A line dock valve 12V-111 and 8-inch JP-5 valves 8V-105 and 107 from the loading arms to the A line.
- **Open** 18-inch motor-operated valve 18V-112 by placing the switch in the “Open” position.
- **Open** the 12-inch dock valve 12V-110.
- **Leave** 6-inch loading valve 8V-108 closed until final approval has been given by the QSR and the barge is ready to off-load.
- **Secure** authorization from the QSR that all identification tests and quantities are in order and product is acceptable for receipt.
- **Open** 6-inch unloading valve 6V-108.
- **Direct** barge personnel to commence off-loading.
- **Check** receiving tanks, pipelines, and all connections for leaks immediately when off-loading commences.
- **Inspect** pipeline every six hours from dock to receiving tank while off-loading is in progress.
- **Record** events, times, and circumstances on vessel worksheet.
- **Monitor and record** gravity of material on Discharge Log once per hour while receiving.
- **Inspect** receiving tank and record gauge reading and dock pressure hourly and record on Receiving Vessel Visual Gauge Reading worksheet.

- **Determine**, with the QSR, the need for injection of antistatic additive into receipt fuel

Note: The additive blend in the injection tank shall be a mix of 9 gallons of fuel to 1 gallon of additive chemical.

- **Inject** antistatic additive, as directed by the QSR, into receipt fuel while monitoring the injection system hourly.
 - **Shut down** antistatic injection when complete.
- **Obtain 1-gallon line samples as specified by the QSR.**
 - **Notify** the Terminal Superintendent and the QSR an hour prior to completion of off-loading.

Valves must be aligned appropriately at the terminal to direct flow to the desired storage tank. See *DFSP Charleston Operations and Maintenance Manual Vol. II*, Section 6, WHOP Marine Receipts, for alignment of tank manifolds.

Off-Loading Sequence Certification

Sequence	Product Name	Quant. bbls	Rate or Pressure (PSI)

I do certify that I have personally inspected this facility or vessel and with reference to the requirements and that opposite each of them I have indicated that the regulations have been complied with.

Person In Charge of Receiving Unit	Title	Time and Date

Person In Charge of Delivering Unit	Title	Time and Date

	Ship	Shore
Are tank-cleaning operations planned during the ship's stay alongside the shore installation?	Yes No*	Yes No*
If so, have the port authority and terminal been informed?	Yes No*	

*Circle Yes or No as appropriate

Declaration	
We have checked, where appropriate jointly, the items on this check list, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge, and arrangements have been made to carry out repetitive checks as necessary.	
For Ship	For Terminal
Name	Name
Rank	Position
Signature	Signature
Time	
Date	

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18.3 Sequence Procedures for Loading Barges

The following procedures will be followed for loading a barge:

- Coordinate with the QSR on which product pipeline and issue tank(s) shall be used to supply the fuel shipment.
- Gauge issue tank for fuel and water and obtain temperature.
- Verify that no other tank valves are open to the selected 18-inch line.

When loading JP-8 using Pipeline A, the following DFSP Terminal alignment is used:

- Close 18-inch valves 18V-205 and 8V-206 on the B and C lines.
- Open 18-inch valve 18V-204 on the A line.
- Open 18-inch valve at the selected JP-8 tank.

When loading JP-5 using Pipeline B, the following DFSP Terminal alignment is used:

- Close 18-inch valves 18V-204 and 28V-206 on the A and C lines.
- Open 18-inch valves 18V-205 (manual) and 18V-202 (motorized) on the B line.
- Open 18-inch valve at the selected JP-8 tank.

Valves must be aligned appropriately at the terminal to direct flow to the desired storage tank. See *DFSP Charleston Operations and Maintenance Manual Vol. II*, Section 6.0, WHOP Marine Shipments, for alignment of tank manifolds.

Perform the following steps once the barge has arrived and is properly secured and positioned for fuel transfer operations.

- Ensure bonding cable switch is in the “off” position.
- Check the bonding cable and clamps for good condition.
- Attach the bonding cable to the barge, ensuring a good metal-to-metal connection.

WARNING: Loading of the barge shall not commence unless a good ground is achieved and the green indicator light is on.

- **Close** the bonding switch.
- **Verify** that the green bonding light is illuminated.
- **Verify** with a visual check that the loading arm is in good condition.
 - **Check** the swivel joint for leaks and ease of movement.
 - **Check** the O-ring on the quick-connect fitting.

WARNING: Use a spud wrench to tighten quick-connect fitting ears.

- **Place** drip pans under the loading arm and make connections.
 - **Attach** the loading arm.
- **Inspect** the barge, along with the QSR, to ensure it is suitable for loading and that the barge operators have sealed their suction and discharge valves.
- **Open and drain** all vent and cargo lines into a bucket or catchpan.

WARNING: The person performing the actual loading shall be grounded.

- **Grasp** the bonding wire, grounded hand rails, or other grounded surface with a bare hand before boarding or opening the hatch cover.
- **Verify** that all personnel handling fuel are grounded, and then open the hatches.
- **Inspect** each compartment visually.
- **Gauge** compartments for fuel and water.
- **Sample** any residual fuel and test.

Note: If residual fuel exists, and the sample tests “acceptable,” proceed. If the sample tests “unacceptable,” the barge must arrange to off-load, be cleaned, and return.

When loading JP-8 via pipeline A, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-112 on the B line by placing the switch in the “Close” position.

- **Close** 12-inch B line dock valve 12V-110 and 8-inch JP-5 valves 8V-105, 106, and 107 to the tanker off-loading arms.
- **Open** 18-inch motor-operated valve 18V-113 by placing the switch in the “Open” position.
- **Open** the 12-inch dock valve 12V-111.
- **Leave** 6-inch loading valve 6V-108 closed until final approval has been given by the QSR and the barge is ready to load.

When loading JP-5 through pipeline B, the following dock valve alignment will be used:

- **Close** 18-inch motor-operated valve 18V-113 on the A line by placing the switch in the “Close” position.
- **Close** 12-inch A line dock valve 12V-111 and 8-inch JP-5 valves 8V-105, 106, and 107 to the tanker loading arms.
- **Open** 18-inch motor-operated valve 18V-112 by placing the switch in the “Open” position.
- **Open** the 12-inch dock valve 12V-110.
- **Leave** 6-inch loading valve 6V-108 closed until final approval has been given by the QSR and the barge is ready to load.
- **Secure** authorization from the QSR that all identification tests and quantities are in order and product is acceptable for loading

WARNING: The initial loading rate for an empty or near empty tank shall be at a reduced rate until the liquid level is 3 feet above the inlet pipe.

- **Commence** barge loading by opening 6-inch valve 6V-108.
- **Check** issue tanks, pipelines, and all connections for leaks immediately when loading commences and every six hours during the transfer operations.
- **Sample** the line and record the gravity reading on the barge worksheet five minutes after loading has begun, and every 30 minutes thereafter.
 - **Notify** the QSR if the gravity reading differs more than plus/minus 1 degree from the terminal tank’s composite gravity.

- **Shut down** loading operations if line samples show excessive amounts of water and report it to the QSR and Terminal Superintendent.
- **Load** the barge as specified in the Redistribution Order (RDO).
- **Document** any short loading, and the reasons for it, on Tanker/Barge Material Inspection and Receiving Report, DD Form 250-1.

Notify the Terminal Superintendent and QSR 45 minutes prior to completion of the barge loading operation.

19.0 COMPLETION OF TRANSFERS

19.1 Completion Of Off-Loading

One hour before completion of an off-loading, notify the terminal superintendent and the QSR. Secure the barge or vessel's transfer pump. Close 8-inch dock valve(s) 8V-101/102, 8V-105/106/107, and 12-inch dock valve(s) 12V-110/111, depending on the transfer pipelines used. Pump out the loading arm(s) with stripping pump FD-P-01. Crack the loading arm(s) bleed valve to allow air to replace liquid. Drain the remaining liquid in the loading arm(s) back to the vessel and disconnect. Verify drip pans are in place before disconnecting the loading arm(s). Disconnect the loading arm(s) and replace the end plates. Close 18-inch motor-operated valve(s) 18V-112 or 113. Close 18-inch terminal valves 18V-202/203 and 18V-204/205, depending on which pipelines were used. Close 18-inch receipt tank valve and obtain visual gauge reading. Inspect all barge or vessel compartments. Gauge carryaway fuel and water in the presence of the QSR and vessel representative and document findings. Gauge the receipt tank after it has settled (at 30 minutes and 24 hours, if possible). Correct the gauging results to 60°F with the QSR and record on the Tanker/Barge Material Inspection and Receiving Report, DD Form 250-1. Open the bonding cable switch and remove the cables at the appropriate time. (**Note: Bonding cables shall not be removed if the barge or vessel remains at the dock.**)

19.2 Completion Of Loading

Forty-five minutes before completion of a barge-loading transfer, notify the terminal superintendent and the QSR. Close the 6-inch dock valve 6V-108 and the 12-inch dock valves 12V-110 or 12V-111, depending on which line was used, at the completion of the transfer. Compare vessel and terminal transfer records. Resume transfer if requested by the QSR. Take all level samples (in conjunction with the OSR) in clear glass bottles from each barge compartment that was loaded. Gauge each barge compartment for fuel and water, and record the temperature. Calculate barge quantities delivered. (**Note: The operating contractor and the QSR shall correct the barge quantities to 60°F on the Innage/Ullage sheets, using the barge calibration charts.**) Gauge the issue tank(s), after 30 minutes of settling time, for fuel and water, and record the temperature. Enter Quantity Delivered by Shore Tank Gauge in Block #25, DD 250-1. Secure from transfer when directed by QSR. Verify drip pans are in place before disconnecting the loading arm. Disconnect the loading arm and replace the end plate.

Close 18-inch motor-operated valve(s) 18V-112 or 113 on the A or B line by placing the switch in the "Close" position, depending on which line was used. Close 18-inch terminal valves 18V-202/203 and 18V-204/205, depending on which pipelines were used, and the appropriate tank valves of the issuing tank(s). Disconnect bonding cables at the appropriate time. Record completed calculations, as agreed to between the operating contractor and the QSR, on Tanker/Barge Material Inspection and Receiving Report, DD Form 250-1. Issue the barge captain his copy of DD Form 250-1 and Innage/Ullage reports. Release the barge to sail.

20.0 EMERGENCIES

Table 13 Immediate Actions for Manifold, Transfer Hose, and Other Transfer Equipment		
Condition	Actions	Job Title
During Transfers	<ul style="list-style-type: none"> • Notify pump operator (barge or vessel if off-loading barge or vessel) to shut down pump(s) or facility operator (gravity barge loading) to shut valve(s). • Slowly close working storage tank valves and DFSP Charleston Fuel Pier Manifold valves <u>after shutting off pumps or closing valves.</u> • If there is a spill, secure all ignition sources and secure spill area. • Slowly close nearest flow control valves to isolate the source of the spill. • If spill occurs outside of containment or curbed areas on the pier, block pier drains with sorbent pads or rolls. • Contain spill on pier with sorbent pad, sheets, or rolls. • If spill is contained within containment or curbed areas, verify containment. • Notify the Fire Department with required information notify immediately after securing flow and ignition sources when the spill is onto water. • If effective, use available containers to collect a spill that is occurring outside of containment or the curbed areas. • Make required notifications. 	Tankerman/ Journeyman

Table 14 Immediate Actions for Barge Tank Overflow		
Condition	Actions	Job Title
During Transfer	<ul style="list-style-type: none"> • Notify facility operator to shut down gravity flow. • Slowly close terminal tank flow control valve. • Slowly close DFSP Charleston Fuel Pier flow control valve <u>after shutting off gravity flow from terminal.</u> • Secure all ignition sources and secure spill area. • Contain and clean up spill on barge or vessel using sorbent pads, sheets, or rolls. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman

Table 15 Immediate Actions for Facility Tank Overflow		
Condition	Actions	Job Title
During Transfer	<ul style="list-style-type: none"> • Notify barge or vessel pump operator to shut down pump. • Slowly close terminal tank flow control valve <u>after shutting off pump.</u> • Slowly close DFSP Charleston Fuel Pier flow control valve. • Verify closure of the secondary containment drainage valve. • Secure all ignition sources and secure spill area. • Contain and clean up spill using sorbent pads, sheets, or rolls. • Notify the Fire Department with required information immediately after securing flow and ignition sources. • Make required notifications. 	Tankerman/ Journeyman

Table 16 Immediate Actions for Barge or Vessel Cargo Tank Failure		
Condition	Actions	Job Title
During Off-loading Transfer	<ul style="list-style-type: none"> • Continue off-loading barge or vessel to bring the oil level in the affected tank below the area of the failure. • Secure all ignition sources and secure area of spill. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman
During Loading Transfer	<ul style="list-style-type: none"> • Notify facility operator to shut off gravity flow from tank. • Slowly close DFSP Charleston Fuel Pier flow control valve <u>after shutting off flow.</u> • Slowly close all other DFSP Charleston Fuel Pier valves. • Secure all ignition sources and secure spill area. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Transfer product in the failed barge or vessel tank to another tank or, if possible, pump water into the tank to stop spill by raising product level above the failure's location. • If necessary, realign valves to off-load contents in the failed barge or vessel tank to a terminal storage tank. • Make required notifications. 	Tankerman/ Journeyman

Table 17 Immediate Actions for Pipeline Rupture		
Condition	Actions	Job Title
During Transfer	<ul style="list-style-type: none"> • Notify barge or vessel pump operator, as appropriate, to shut down pump if off-loading, or facility operator if loading (gravity) a barge. • Slowly close DFSP Charleston Fuel Pier flow control valve <u>after shutting off pump if off-loading or close off tank flow if loading.</u> • Slowly close terminal tank flow control valve if off-loading. • Slowly close all DFSP Charleston Fuel Pier Manifold valves. • Secure all ignition sources and secure spill area. • If rupture occurs at a pipeline location outside containment, cover or block storm drains and sewer manholes and/or block drainage ditches as necessary. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Journeyman

Table 18 Immediate Actions for Pipeline Leak Under Pressure		
Condition	Actions	Job Title
During Transfer	<ul style="list-style-type: none"> • Notify barge or facility pump operator, as appropriate, to shut down pump if off-loading, or facility operator if loading (gravity) a barge. • Slowly close DFSP Charleston Fuel Pier flow control valve <u>after shutting off pump (if off-loading) or close off tank valve if loading.</u> • Slowly close terminal tank flow control valve. • Slowly close DFSP Charleston Fuel Pier Manifold valves. • Slowly close nearest flow control valves to isolate the leaking section of pipeline. • Secure all ignition sources and secure spill area. • Use drip pans or other containers to collect leak. • Contain spill outside of containment with sorbent pads, sheets, or rolls. • If feasible, use a portable pump and a holding tank to reduce affected pipeline section pressure to atmospheric pressure. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman
During Static Conditions	<ul style="list-style-type: none"> • Secure all sources of ignition and secure spill area. • Use drip pans or other containers to collect leak. • Contain spill outside of containment with sorbent pads, sheets, or rolls. • Verify closure of nearest flow control valves and isolation of leaking section of pipeline. • If feasible, use a portable pump and holding tank to reduce affected pipeline section pressure to atmospheric pressure. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman

Table 19 Immediate Actions for Other Equipment Failures, (i.e., Pumps, Relief Valves, Flow Control Valves, Flanges, etc.)		
Condition	Actions	Job Title
Pump Failure	<ul style="list-style-type: none"> • Switch to backup pump. • If unable to use a backup pump, shut down transfer operation. • Slowly close working storage tank and DFSP Charleston Fuel Pier valves. • Secure ignition sources and secure spill area. • Slowly close flow control valves to isolate pumping equipment. • Verify spill containment in the area of the pump. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman
Pumping Equipment Leaks	<ul style="list-style-type: none"> • If unable to stop leak (e.g., by increasing torque on packing nuts for a packing leak), switch to backup pump. • If unable to switch to a backup pump, shut down transfer operation. • Slowly close storage tank flow, DFSP Charleston Fuel Pier flow control valves, and all other DFSP Charleston Fuel Pier valves <u>after shutting off pump.</u> • Slowly close flow control valves to isolate leaking pumping equipment. • If effective, use drip pans or other containers to collect leaking product from pump. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman
Relief Valve Failure during Static Conditions	<ul style="list-style-type: none"> • Secure all ignition sources and secure spill area. • Cover or block storm drains and sewer manholes or block drainage ditches as necessary. • Verify closure of nearest flow control valves and isolation of leaking section of pipeline. • If feasible, use a portable pump and holding tank to reduce affected pipeline section pressure to atmospheric pressure. • Contain spill outside of containment with sorbent pads, sheets, or rolls. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Journeyman

Table 19 Immediate Actions for Other Equipment Failures, (i.e., Pumps, Relief Valves, Flow Control Valves, Flanges, etc.)		
Condition	Actions	Job Title
Relief Valve Failure during Transfer Operations	<ul style="list-style-type: none"> • Notify barge or pump operator, as to shut down pump if off-loading, or facility operator if loading (gravity) a barge. • Slowly close DFSP Charleston Fuel Pier flow control valve <u>after shutting off pump if off-loading, or close off tank flow if loading.</u> • Slowly close nearest flow control valves to isolate the relief valve. • Cover or block storm drains and sewer manholes or block drainage ditches as necessary. • If feasible, use a portable pump and holding tank to reduce affected pipeline section pressure to atmospheric pressure. • Contain spill outside containment with sorbent pads, sheets, or rolls. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/ Journeyman
Flow Control Valves, Flanges, and Other Equipment Failures	<ul style="list-style-type: none"> • If spill occurs during a transfer operation, shut down operation and close nearest isolation or flow control valves to isolate affected equipment. • Secure ignition sources and secure spill area. • Cover or block storm drains and sewer manholes or block drainage ditches as necessary. • If effective, use drip pans or other containment equipment to contain and collect spilled material. • Contain spill outside of containment with sorbent pads, sheets, or rolls. • Notify the Fire Department with required information immediately after securing flow and ignition sources when the spill is onto water. • Make required notifications. 	Tankerman/Jour eyman

Table 20 Immediate Actions for Fires or Explosions		
Condition	Actions	Job Title
All	<ul style="list-style-type: none"> • Activate fire alarm. • If incident occurs at DFSP Charleston Fuel Pier or pump house, shut off power to location and close valves. • If electrical fire involved, shut off electrical power. • If incident occurs during a transfer, notify pump operator to shut off pumping equipment and close nearest isolation or flow control valve. • Evacuate to safe distance and account for all personnel. • Secure area, stay upwind, and keep out of low areas. • Notify Fire Department immediately after securing flow and ignition sources. • Remove or secure other sources of ignition <u>if possible without risking life, health, or safety.</u> • Remove flammable materials <u>if possible without risking life, health, or safety.</u> • Use fire extinguishers if trained to use and it is safe and appropriate. 	All personnel on duty at DFSP Charleston or DFSP Charleston Fuel Pier

21.0 PROCEDURES FOR REPORTING

The DFSP Charleston Terminal superintendent will be notified when an oil spill is detected. The terminal superintendent will make all initial notifications.

If there is a potential life, health, fire or other safety hazard, the terminal superintendent will contact local fire and police first by calling **911**.

The superintendent will then notify the National Response Center (NRC) in Washington, D.C., by calling **1-800-424-8802** or (202) 267-2675. The Duty Officer at the NRC will notify the appropriate federal agencies.

The superintendent will report the spill to the South Carolina Department of Health and Environmental Control by calling **(803) 740-1590** (24-hrs).

The terminal superintendent will also notify the Contracting Officer's Representative (COR) for DFSP Charleston by calling **(803) 744-3884** during normal working hours or **(803) 552-7888** after hours. The COR is authorized to make expenditures up to set limits and can authorize operating contractor expenditures.

Other notification number may be found in the DFSP *Charleston, Charleston, South Carolina Facility Response Plan*, Emergency Response Action Plan, Tab B: Notifications, Revised Final dated November 1995.

22.0 POLLUTION INCIDENT REPORT

Spill Response Notification Form National Response Center 1-800-424-8802

Note: It is not necessary to wait for all information before calling the NRC. This form is to be used for Initial Notification and all follow-up notifications. Action should be assigned by the Qualified Individual for initial and follow-up completion.

Table 21 Spill Response Notification Form	
Reporter Information	
Reporter's Name	
Last	
First	
Reporter's Phone Number	DFSP Charleston Terminal: (803) 744-3884
Company	Defense Fuels Charleston Terminal
Organization Type	
Position	

**Table 21
Spill Response Notification Form**

Address	Street: 5862 North Rhett Extension	
	City: Hanahan	
	State: South Carolina	
	ZIP Code: 29406	
Were Materials Released	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Confidential	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Time Call Received		
Incident Description		
Source and/or Cause of Incident		
Date		
Time of Incident		
Incident Address/Location		
Nearest City		
County		
State		
ZIP Code		
Distance from Nearest City (miles)		
Container Type		
Tank Capacity (include units)		
Facility Capacity (include units)		
Facility Latitude	32° 54' 22" N	
Facility Longitude	79° 57' 15" W	
Weather Conditions		
Material Released	CHRIS Code (Chemical Hazards Response Information System)	
YES		
NO		
Quantity Released (include units)		
Material Released into Water	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Quantity Released into Water (include units)		

**Table 21
Spill Response Notification Form**

Response Actions

Initial Actions Taken to Correct Incident/Initial Action Taken by Personnel on Scene

Actions Taken to Control Incident/Follow-up Actions Taken by Personnel on Scene

Actions Taken to Mitigate Incident/Actions Planned by Persons on Scene

Impact

Number of injuries	
Number of deaths	
Evacuation(s) Required	YES <input type="checkbox"/> NO <input type="checkbox"/>
Number Evacuated	
Was There Any Damage	YES <input type="checkbox"/> NO <input type="checkbox"/>
Damage in Dollars (estimated)	

Table 21 Spill Response Notification Form				
Medium Affected				
Description of Effect				
Additional Information about Medium Affected				
Additional Information				
Any information about the incident not recorded elsewhere in the report				
Notification Status	Contacted	Date Contacted	Name/Contact	Call Back Phone Number
Fire/Police/Medical 911	YES <input type="checkbox"/> NO <input type="checkbox"/>			
NRC 1-800 424-8802	YES <input type="checkbox"/> NO <input type="checkbox"/>			
USCG MSO Charleston (803) 724-7619/7616/7618	YES <input type="checkbox"/> NO <input type="checkbox"/>			
EPA IV (404) 347-3931 (404) 347-4062 (24-hrs)	YES <input type="checkbox"/> NO <input type="checkbox"/>			
SC Department of Health (803) 253-6488 (24-hrs)	YES <input type="checkbox"/> NO <input type="checkbox"/>			
FENN-VAC (803) 552-8306	YES <input type="checkbox"/> NO <input type="checkbox"/>			
NAVSUPSALV (703) 607-2758	YES <input type="checkbox"/> NO <input type="checkbox"/>			

Table 21 Spill Response Notification Form				
Charleston AFB (803) 566-4977	YES <input type="checkbox"/> NO <input type="checkbox"/>			
NAVSTAT Charleston (803) 743-5795/5557/6413	YES <input type="checkbox"/> NO <input type="checkbox"/>			
SERC (803) 734-8020	YES <input type="checkbox"/> NO <input type="checkbox"/>			
LEPC (803) 554-5941	YES <input type="checkbox"/> NO <input type="checkbox"/>			
Other Contacts	Contacted	Date Contacted	Name/Contact	Call Back Phone Number
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			
	YES <input type="checkbox"/> NO <input type="checkbox"/>			

23.0 INITIAL CONTAINMENT ACTIONS

Vessels are not boomed during transfer operations. However, 1,500 feet of 18-inch harbor boom is permanently mounted on the end of dock toward Goose Creek. This booming could initially contain any product that enters the water, depending on the volume of a particular discharge. Additional initial containment actions are described in Section 20 (Emergencies) of this manual.

General spill response for DFSP Charleston is provided by FENN-VAC, Inc., a class E Oil Spill Response Organization (OSRO) in Charleston, and Navy Supervisor of Salvage (NAVSUPSALV). Additional containment and response strategies for spills from DFSP Charleston Fuel Pier may be found in the *DFSP Charleston, Charleston, South Carolina Facility Response Plan*, (Revised Final November 1995), Facility Response Plan Section, Tab 6, Plan Implementation.

24.0 SUMMARY OF APPLICABLE FEDERAL, STATE, AND LOCAL POLLUTION LAWS AND REGULATIONS

State Laws and Regulations

The State of South Carolina requires notification in the following manner:

Oil: Report spills into the environment to:

South Carolina Department of Health and Environmental Control, Columbia
(24-hour) **(803) 253-6488**

Notes:

1. Environment means the waters, ambient air, soil, and/or land.
2. Waters of the state include surface and underground waters within or bordering upon the state, including the Atlantic Ocean within the state's territorial limits.

Federal Laws and Regulations

Violation	Penalty	Authority
Failure to notify the appropriate federal agency	A fine of up to \$250,000 for individuals, \$500,000 for corporations, and/or imprisonment of up to 5 years	Section 311 (b)(5) of Public Law 92-500
Knowingly making a false report, statement, or representation pursuant to the requirements of the act.	A fine of up to \$10,000 and/or imprisonment of up to six months	Section 390(c)(2) of Public Law 92-500
Discharging harmful quantities of oil (any amount which produces a sheen on the water) into or upon the waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone	A civil penalty of up to \$5,000	Section 311(b)(6) of Public Law 92-500
Anyone who discharges hazardous materials or oil which kills wildlife or fish	A fine of up to \$500 and/or six months' imprisonment	The Migratory Treaty Act

25.0 LIGHTING

The DFSP Charleston Fuel Pier is lighted by lights along the wharf side of Building 852. The lights comply with 33 CFR 154.570(d).

26.0 DESCRIPTION OF TRAINING AND QUALIFICATION PROGRAM FOR PERSONS IN CHARGE

Terminal Superintendent

The superintendent must have at least six years' experience in fuel terminal operations engaged in receiving, storing, and shipping petroleum products via tank truck, tank car, pipeline, and by vessel. Three years of this experience must be specialized supervisory experience in fuel terminal operations emphasizing terminal maintenance, operations, and environmental compliance. One year may be general supervisory experience.

The superintendent must also complete an offsite five-day oil spill control training course.

Person in Charge

A PIC for a fuel transfer must be a journeyman. A journeyman must have at least one year's experience in storage and distribution of petroleum products including transferring and shipping products by pipeline, tank car, tank truck, and vessel. Additionally, prior to being considered qualified, the trainee must participate in several fuel transfers with the superintendent, assistant superintendent, or another qualified PIC. The trainee will perform different functions of the transfer procedures until the superintendent believes the trainee is

qualified to conduct a complete transfer operation on his own. The superintendent must also ensure that the candidate has all of the knowledge required by 33 CFR 154.710. An evaluation is made by observing the trainee at work and/or by oral examination. Upon successful completion of the training program, the trainee's name will be added to the list of qualified PICs. The superintendent may require the trainee to read the appropriate rules, regulations, and manuals at any time during or after the training period.

Specific Qualifications

No person may serve, and the facility operator may not use the services of any individual as a PIC, unless he/she has met these minimum requirements:

- The terminal superintendent has designated the individual as a "person-in-charge" and has so advised the USCG Captain of the Port.
- The individual has at least 48 hours of experience in oil transfer operations at DFSP Charleston.
- The individual has enough experience at the facility to enable the facility operator to determine that his/her experience is adequate and that he/she can properly operate the equipment.
- The facility operator has determined that the individual is aware of the following:
 - The hazards of JP-8
 - His/her ability to operate equipment
 - The requirements of the oil transfer procedures contained in this manual, which is based on the USCG regulations
 - Spill containment procedures
 - Applicable federal, state, and local oil pollution laws and regulations
 - Vessel oil transfer system (general)
 - Vessel oil transfer control systems (general)
 - Each DFSP Charleston oil transfer control system to be used
 - The procedures described in this manual

- Local discharge reporting procedures
- DFSP Charleston's Contingency Plan for discharge reporting and containment.

Commanding Officer
ATTN: Dwight Burke, Code 1847
July 5, 1996
page two

cc:
Contracts File: CTO No. N62467-89-D-03180107
Project File: Final Oil Pollution Prevention Operations Manual for
DFSP Charleston, South Carolina (Final June 1996)
SOUTHDIV: Ms. Kim Reavis/Code 0233KR

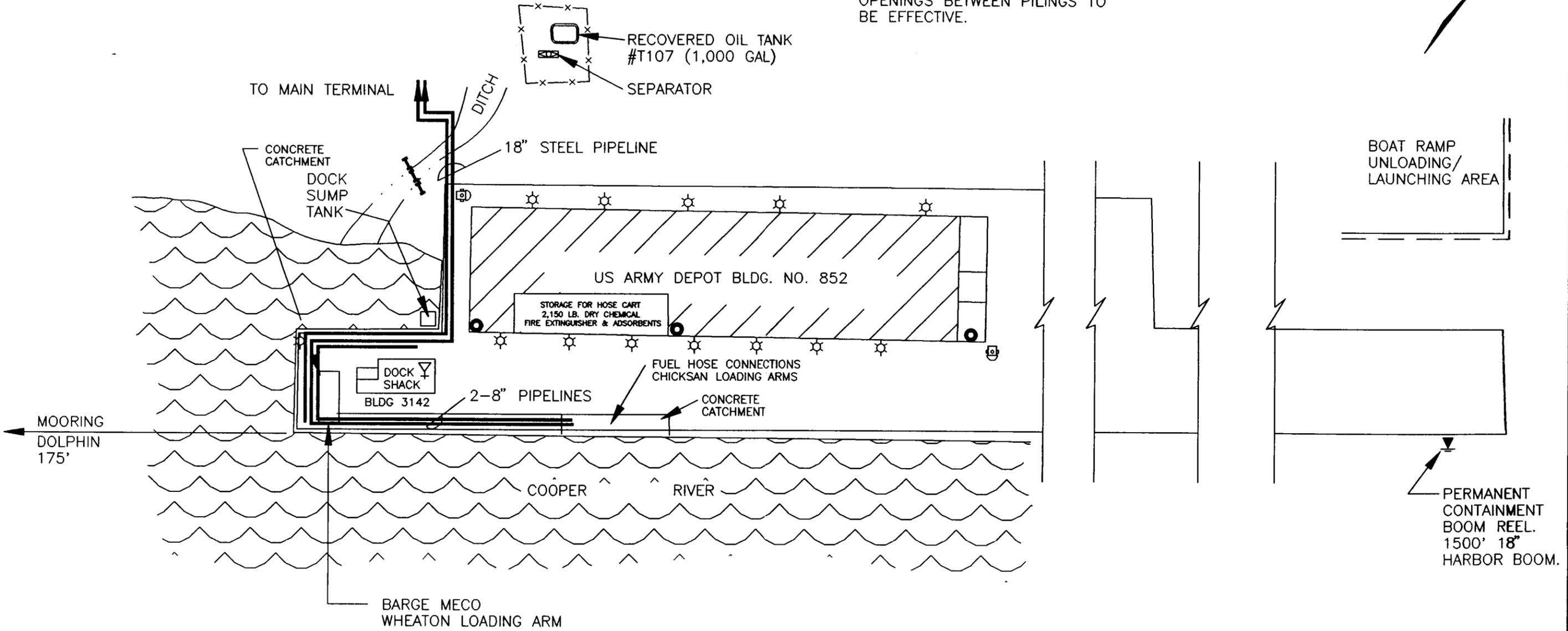
Other: Mr. Wayne Barnum Defense Fuel Supply Center
8725 John J. Kingman Road, Suite 2941
Fort Belvoir, VA 22060-6222
(one Final copy, camera ready copy, diskettes for all word
processing and CAD drawing)

DFSP Charleston, South Carolina
Attn: Mr. Larry Verhosek
c/o Management Engineering Associates, Inc.
DFSP Charleston, South Carolina
5862 North Rhett Extension
Hanahan, South Carolina 29406
(two final copies)

Defense Fuel Region South
ATTN: Mr. Bob Beck
Federal Office Building
2320 LaBranch, Room 1005
Houston, Texas 77004-1091
(one final copy)

Captain of the Port
U.S. Coast Guard Marine Safety Office
ATTN: MST2 Bradley Snover, USCG
Charleston, SC 29404-4846
(one final copy)

NOTE:
DOCK OPEN UNDERNEATH.
CONCRETE DOCK PLACED ON PILINGS:
CONTAINMENT BOOM MUST SKIRT ALL
OPENINGS BETWEEN PILINGS TO
BE EFFECTIVE.



LEGEND

- BOOM AREA
- TELEPHONE
- LIGHT
- FIRE ALARM
- FIRE EXTINGUISHER
- FIRE HYDRANT
- FENCE

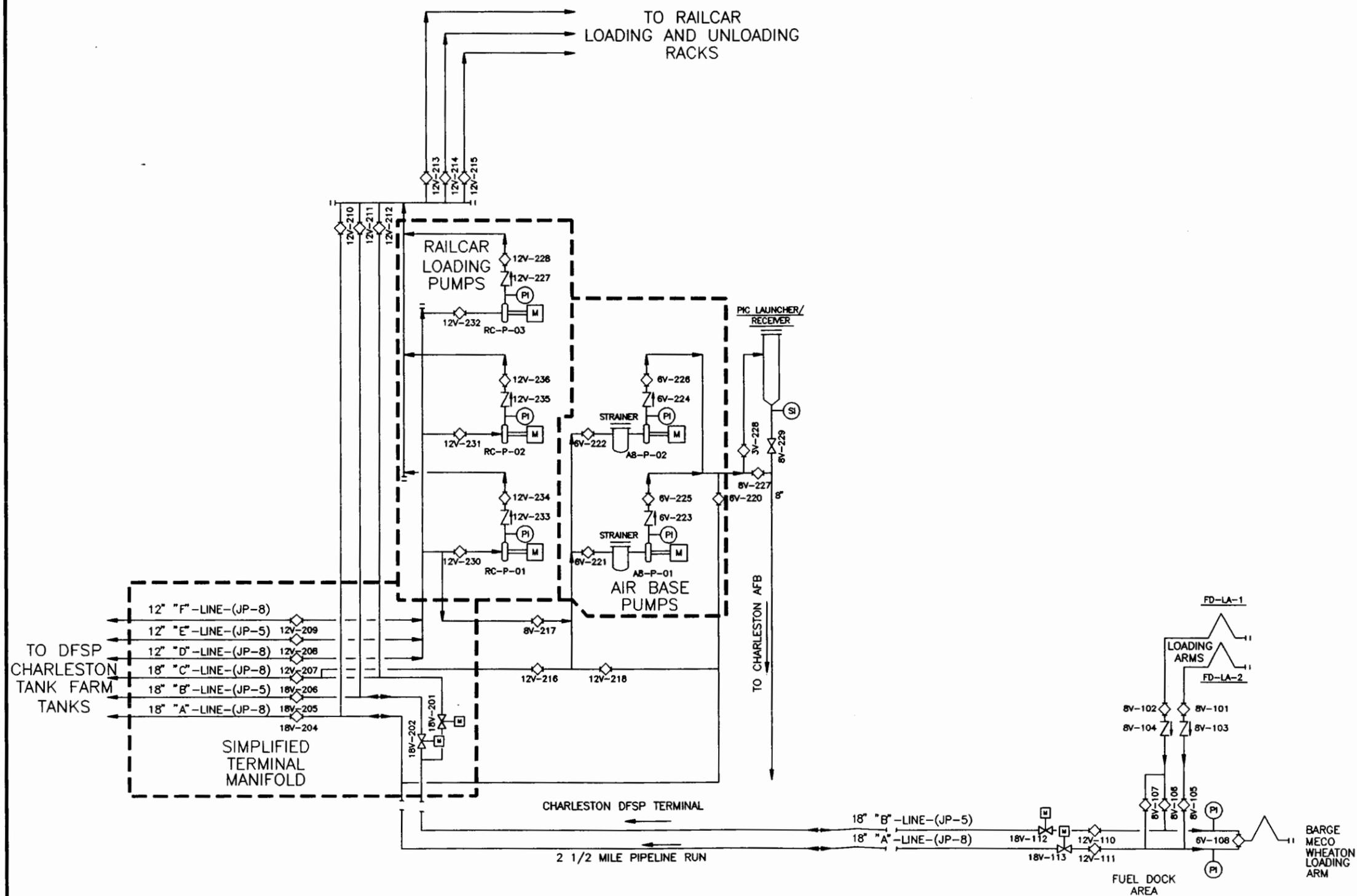
SCALE: NOT TO SCALE



SOUTHERN DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND
CHARLESTON, SOUTH CAROLINA
CONTRACT NO. N62467-89-D-03180107

FIGURE 3
DFSP CHARLESTON TERMINAL
FUEL PIER AT
COOPER RIVER WHARF
CHARLESTON, SOUTH CAROLINA
DWG DATE: 07/01/96 | DWG NAME: 107FPW

00468HH B12



LEGEND

	- CHECK VALVE
	- PLUG VALVE
	- GEAR OPERATED PLUG VALVE
	- MOTOR OPERATED CONTROL VALVE
	- SCRAPER LAUNCHER/RECEIVER
	- BLIND FLANGE
	- STRAINER - BASKET TYPE
	- PROCESS LINE
	- PRESSURE INDICATOR
	- PIC INDICATOR SYMBOL
	- MOTOR DRIVEN CENTRIFUGAL PUMP

SCALE: NOT TO SCALE

	SOUTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND CHARLESTON, SOUTH CAROLINA CONTRACT NO. N62467-89-D-03180107	FIGURE 4 SIMPLIFIED DFSP CHARLESTON PIPELINE DIAGRAM AT COOPER RIVER WHARF CHARLESTON, SOUTH CAROLINA
	DWG DATE: 07/01/96 DWG NAME: 107SDPD	