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NAS KEY WEST
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OIL POLLUTION ACT OF 1990 FACILITY RESPONSE PLAN NAS KEY WEST FL
4/1/2007
NAS KEY WEST

NAVAL AIR STATION KEY WEST OPA 90 FACILITY RESPONSE PLAN



FINAL UPDATED VERSION

APRIL 2007

NAVAL AIR STATION KEY WEST
OPA 90 FACILITY RESPONSE PLAN



TAB 1: FACILITY INFORMATION

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1.0 FACILITY INFORMATION:

This section contains facility information that may be used by the facility response planners and responders and regulators to analyze the spill potential of a facility. Where extensive data is requested by the regulators and the data is already contained in other facility plans (Disaster Preparedness Plans, and SPCC Plans, for example), brief summaries of the data are included and the detailed source documents referenced in the response plan.

TABLE FRP 1.1: FACILITY INFORMATION QUICK REFERENCE TO NAVAL AIR STATION KEY WEST (GENERAL)		
TOPIC	INFORMATION	
IDENTIFICATION	NAME	Naval Air Station Key West
	OWNER	U.S. Navy
LOCATION	MAILING ADDRESS	Commanding Officer Naval Air Station Key West, FL 33040-9001
	PHYSICAL ADDRESS	Same
	LOCATION (river mile, distance from known landmark)	Boca Chica Key, FL
	COUNTY	Monroe
	LATITUDE: North	24° 35' 00"
	LONGITUDE: West	81° 42' 30"
PHONE NUMBERS (Spill Response Center)	24-HOUR	(305) 293-3333
	DAY	(305) 293-3333
WELLHEAD PROTECTION AREA? (Is facility in or drain into one?)		NOT APPLICABLE
FACILITY QUALIFIED INDIVIDUAL/INCIDENT COMMANDER	NAME	J. R. Brown
	POSITION/TITLE	Commanding Officer
	ADDRESS	Naval Air Station, P.O. Box 9007 Key West, FL 33040-9007
	COMMERCIAL WORK PHONE	(305) 293-2268 - Quarterdeck
	CDO Phone	(305) 797-4428
	FAX NUMBER	(305) 293-2268/2971/2041
	24-HOUR EMERGENCY PHONE	(305) 293-3333
ALTERNATE FACILITY QI/DEPUTY IC	NAME	Ron Demes
	POSITION	Business Manager
	ADDRESS	Building A-324
	WORK PHONE	(305) 293-2488
	24-HOUR PHONE	(305) 797-4452
	SPECIFIC TRAINING EXPERIENCE	24-Hour Spill Response
ALTERNATE FACILITY QI/DEPUTY IC	NAME	Robert Courtright
	POSITION	Environmental Specialist
	ADDRESS	Building A-629
	WORK PHONE	(305) 293-2881
	24-HOUR PHONE	(305) 797-4461
	SPECIFIC TRAINING EXPERIENCE	24-Hour Spill Response

TABLE FRP 1.1: FACILITY INFORMATION QUICK REFERENCE TO NAVAL AIR STATION KEY WEST (GENERAL)		
TOPIC		INFORMATION
ALTERNATE FACILITY QI/DEPUTY IC	NAME	John Dickinson
	POSITION/TITLE	Port Operations Officer
	ADDRESS	Building 284, Truman Annex
	COMMERCIAL WORK PHONE	(305) 293-5671 (Ext 2001)
	DSN	483-5671
	FAX NUMBER	(305) 293-4462
	24-HOUR EMERGENCY PHONE	(305) 797-0765
COGNIZANT AUTHORITIES	NAVFAC EFD/EFA	Mr. Dwight Burke
	NAVY ON-SCENE COORDINATOR	Mr. Mike Davenport
	EPA REGION	Region IV (Atlanta, GA)
	USCG DISTRICT	CGD 7 (Miami, FL)
	USCG COTP	CO (Miami, FL)

TABLE FRP 1.2: FACILITY OPERATIONS QUICK REFERENCE TO NAVAL AIR STATION KEY WEST (OPERATIONAL)		
TOPIC		INFORMATION
DATE OF OIL STORAGE START-UP		1917
CURRENT OPERATION		Naval Air Station Key West provides training for F-15 aircraft pilots and air support for Naval operations in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. Naval facilities at Trumbo Point and Truman Annex provide port-side services for Naval Vessels. Truman Annex also provides communications and radar for Atlantic, Caribbean, and Gulf of Mexico operations.
NAISC CODE		92811 (National Security)
DATES AND TYPES OF SUBSTANTIAL EXPANSIONS OF OIL STORAGE		NONE; Since 1995, there has been a substantial decrease in oil storage capacity
PIPELINE RESPONSE ZONES	1. NOT APPLICABLE	NOT APPLICABLE
	2.	
A pipeline response zone for OPA 90-regulated pipelines (i.e., Navy owned or operated pipelines leaving the installation's contiguous property) is an off-installation area that can be responded to by the same resources; multiple zones exist only if the installation cannot respond to a discharge from any OPA 90-regulated pipeline.		

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2.0 EMERGENCY NOTIFICATION PHONE LIST:

Table FRP 2.1 EMERGENCY NOTIFICATION PHONE LIST			
PRIORITIZED CONTACT LIST	RESPONSE ROLE	DAY PHONE	24 HOUR PHONE
Facility Incident/Deputy Incident Commander Name: Ron Demes Response Time: 15-30 Minutes	Incident command and control Facility Qualified Individual	(305) 293-2488	(305) 797-4454
Deputy Facility Incident Commander Name: Robert Courtright Response Time: 15-30 Minutes	Assist with Incident command and control Alternate Facility Qualified Individual	(305) 293-2881	Cell (305) 797-4461
Deputy Facility Incident Commander Name: Fire Chief – David White Response Time: 10-15 Minutes	Assist with incident command and control Alternate Facility Qualified Individual	(305) 293-5888	(305) 797-4401
Deputy Facility Incident Commander Name: Emergency Manager Steve McBride Response Time: 15-30 Minutes	Assist with incident command and control Alternate facility Qualified Individual	(305) 293-2007	(305) 797-1210
Facility Response/Cleanup Team (See Table E . 3 for names/phone numbers)	Mitigate and cleanup spills	(305) 293-5888	(305) 293-3333
NATIONAL RESPONSE CENTER	Receiver of all spill reports and notifier of appropriate FOSC	(800) 424-8802	(800) 424-8802
Facility Management Team (See Table E.4 for names/phone numbers and response times)	Assist in the management of the incident	(305) 293-2583	(305) 797-4454
Navy On-Scene Coordinator Name: Mike Davenport Response Time: 12 Hours	Assist with incident command and control of "worst-case" response. Alternate Regional Qualified Individual	(904) 542-8044	(904) 542-3118
Deputy Navy On-Scene Coordinator Name: Camille Destafney Response Time: 12 Hours	Incident command and control of "worst-case" response. Regional Qualified Individual	(904) 542-8274	(904) 542-3118
Adjacent Navy/DOD Facilities Point of Contact: Naval Air Station Jacksonville Response Time: 12 Hours	Provide additional equipment and personnel resources	(904) 542-2717 ext 116	(904) 542-3166
Adjacent Navy/DOD Facilities Point of Contact: Naval Station Mayport Response Time: 12 Hours	Provide additional equipment and personnel resources	(904) 270-6730	(904) 270-5401
U.S. Coast Guard Group MSO Miami Response Time: 30 Minutes	Provide additional equipment and personnel resources	(305) 535-8701	(305) 535-8701
Local Response Contractors Southern Waste Services — Environment First Response (BOA Contractor) Refer to ERAP Tab E for activation procedures and FRP Appendix B for additional BOA contractor listings NOSC will coordinate with SOUTHNAVFACENCOM to activate BOA Contractors	Provide additional equipment an personnel resources Provides response expertise	(800) 852-8878	(800) 852-8878

Local Response Contractors Clean Caribbean, Inc. NOSC will coordinate with SOUTHNAVFACENGCOM to activate BOA Contractors	Provide additional equipment and personnel resources Provides response expertise	(954) 983-9880	(954) 983-9880
Local Response Contractors Point of Contact: Cliff Berry, Inc. Cliff Berry Response Time: 2.5 - 4 Hours NOSC will coordinate with SOUTHNAVFACENGCOM to activate BOA Contractors	Provide additional equipment and personnel resources Provides response expertise	(954) 763-3390	(800) 899-7745
Additional Response Contractors Contact NOSC Refer to ERAP Tab E for activation procedures and FRP Appendix B for additional BOA contractor listings	NOSC will coordinate with SOUTHNAVFACENGCOM to activate BOA Contractors	Refer to Navy/Deputy Navy On-Scene Coordinator numbers above	Refer to Navy/Deputy Navy On-Scene Coordinator numbers above
Key West Fire Department Point of Contact: Fire Chief Response Time: 5 - 15 Minutes	Emergency medical HazMat response support Fire suppression support	(305) 292-8186	(305) 292-8145 911
State Environmental Protection Agency Point of Contact: Florida Marine Patrol (District 9) Captain George Steinmetz	Incident reporting	(800) 342-5367 Ext. 103	(305) 289-2389
State Environmental Protection Agency Point of Contact: Lisa Gordon	Incident reporting Oil Spill Coordinator	(305) 289-2310	(800) 320-0519
State Emergency Response Commission (SERC) Point of Contact: Bureau of Operations (DCA) Rod Westall	Incident reporting	(850) 413-9970	(800) 635-7179
Local Emergency Planning Committee (LEPC) Assistant City Manager Point of Contact: John Jones	Incident reporting	(305) 292-8100	
State Police (where required) Point of Contact: Randy Kosec	Traffic control Evacuation Crowd control	(305) 289-2383 *FHP	(305) 292-6840
Local Water Supply System Manager Point of Contact: Jim Smith	Secure water supply intakes	(305) 289-2739	FAX: (305) 872-1184
Wildlife Care Contractor BEAK	Wildlife Management Support	(904) 251-2473	(904) 251-2473
Key West Pipeline Company Terminal Point of Contact: John Sykes, Terminal Manger	Qualified Individual	(305) 294-4812 Fax (305) 294-0844	Home: (305) 296-0271
Key West Pipeline Company Terminal Point of Contact: Vaughan W. Walker, Sr.	Alternate Qualified Individual	(305) 294-4812 Fax: (305) 294-0844	Cell: (305) 522-0421 Hm: (305) 872-9640
Key West Pipeline Company Headquarters, Houston Point of Contact: Mark Rauch, President	KWPC Corporate Support	(713) 627-1700	Cell: (713) 829-0065 Hm: (713) 622-8004 Pgr: (281) 365-8843
Local Radio Point of Contact: WAVK FM 106.3	Broadcast evacuation notices	(305) 743-3434	FAX: (904) 852-5586

Local Radio Point of Contact: WFKZ FM 103.1	Broadcast evacuation notices	(305) 852-9085	(305) 852-9085
Local Radio Point of Contact: WKRY FM 93.5	Broadcast evacuation notices	(305) 296-7511	(305) 296-7511
Local TV Point of Contact: WPLG/TV 10 Miami, FL Steve Boyer Patty Cades Rad Berkey	Broadcast evacuation notices	(305) 325-2418	(305) 996-0235
Local TV Point of Contact: WSVN-7 Miami, FL Steve Adams Brad Friedkin	Broadcast evacuation notices	(305) 795-2777	(305) 754-8243
Local TV Point of Contact: WTVJ-6 Miami, FL Roland Steadham	Broadcast evacuation notices	(305) 789-4256	(305) 789-4222
Hospital(s) Point of Contact: Lower Florida Keys Health System James K. Simon 5900 Junior College Rd. Key West, FL 33040	Medical support	(305) 294-5531	(305) 294-5531
Hospital(s) Point of Contact: Fishermans Hospital Kevin Van Hoose 2855 Overseas Hwy Marathon, FL 33050	Medical support	(305) 743-5533	(305) 294-5533
Hospital(s) Point of Contact: Mariners Hospital Robert Luse MM100.3 Overseas Hwy. Key Largo, FL 33037	Medical support	(305) 852-4418	(305) 852-4418
Technical Support Point of Contact: Chemtrec Arlington, VA Response Time: Not Applicable	Hazardous Substances Expertise	(800) 424-9300	(800) 424-9300
Technical Support Point of Contact: EPA — Emergency Response Team Atlanta, GA Art Smith Response Time: Not Applicable to Coastal Spills (See Coast Guard)	Primary Contact: NATIONAL RESPONSE CENTER Response Expertise	(404) 562-8700	(404) 562-8700
Technical Support Point of Contact: EPA Region IV Southeast Atlanta, GA Response Time: Not Applicable	Response Expertise Emergency Management	(404) 562-8705	(404) 562-8700
Technical Support Point of Contact: USCG National Strike Force Mobile, AL Response Time: 12 Hours	Provide additional equipment and personnel resources Provides response expertise	(334) 441-6601	Cell Phone (334) 423-3195

Technical Support Point of Contact: National Oceanic and Atmospheric Administration New Orleans, LA Response Time: Not Applicable	Response Expertise	(504) 589-6296	(504) 389-6225
Technical Support Point of Contact: Supervisor of Salvage (SUPSALV) Duty Officer Crystal City, VA Response Time: 36 Hours	Provide additional equipment and personnel resources	(202) 781-1731	16:00-0700 M-F 24-hours. Weekends (202) 781-3889 Contact: Duty Officer

- 2.1 **SPILL RESPONSE NOTIFICATION FORM:** The same form that is developed for the Emergency Response Action Plan, Tab C, is reproduced in this section. The notification form is a composite of the EPA, USCG, RSPA, and Navy reporting requirements.

**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

TABLE FRP 2.2: SPILL RESPONSE NOTIFICATION FORM	
REPORTER INFORMATION	
Reporter's Name	
Last	
First	
Reporter's Phone Number	
Company	
Organization Type	
Position	
Address	Street:
	City:
	State:
	Zip Code:
Were Materials Released	~ YES ~ NO
Confidential	~ YES ~ NO
Time Call Received	(use 24-hour time)
INCIDENT DESCRIPTION	
Source and/or Cause of Incident	
Date	
Time of Incident	(use 24-hour time)
Incident Address/Location	
Nearest City	

TABLE FRP 2.2: SPILL RESPONSE NOTIFICATION FORM

REPORTER INFORMATION	
County	
State	
Zip Code	
Distance from City (miles)	
Section	
Township	
Range	
Container Type	
Tank Capacity (include units)	
Facility Capacity (include units)	
Facility Latitude	___ Degrees ___ Minutes ___ Seconds
Facility Longitude	___ Degrees ___ Minutes ___ Seconds
Weather Conditions	
Material Released ~ YES ~ NO	CHRIS Code ~
	Quantity Released ~ (include units)
	Material Released into Water ~ YES ~ NO
	Quantity Released into Water ~ (include units)
RESPONSE ACTIONS	
Actions Taken to Correct Incident	
IMPACT	
Number of injuries	
Number of deaths	

TABLE FRP 2.2: SPILL RESPONSE NOTIFICATION FORM

REPORTER INFORMATION	
Evacuation(s) Required	~ YES ~ NO
Number Evacuated	
Was There Any Damage	~ YES ~ NO
Damage in Dollars (estimated)	
Medium Affected	
Description of Affect	
Additional Information about Medium	
Additional Information Any information about the incident not recorded elsewhere in the report	
CALLER NOTIFICATIONS	
EPA	~ YES ~ NO
USCG	~ YES ~ NO
SERC	~ YES ~ NO
LEPC	~ YES ~ NO
NOSC	~ YES ~ NO
Other (List)	~ YES ~ NO

2.2 FACILITY RESPONSE PERSONNEL:

This section contains the same list of response personnel as that included in the Emergency Response Action Plan. However, more in-depth information relative to training, capability, and responsibilities are included. This section identifies support requirements and capabilities. SUPSALV, as another example, requires crane, staging, and other support in order to operate effectively.

PHONE CONTACT LIST

FACILITY RESPONSE PERSONNEL RESOURCES

TABLE FRP 2.3: FACILITY IMMEDIATE RESPONSE TEAM						
NAME	DAY PHONE EXT (NEXTEL)	AFTER HOURS	RESPONSE TIME (Min)	RESPONSE JOB	TRAINING TYPE	TRAINING DATE ⁽¹⁾
Dickinson, John	X 5671 Ext 2001	HM: 747-0920 CELL: 797-0765	15 - 30	Deputy Incident Commander	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Cich, James	X 5671 (797-4445)	HM: 745-1299 CELL: 797-4445	15 - 30	OSR Spill Chief	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Mozer, Jason	X 5374 Ext 2007	HM: 923-9572 CELL: 797-4360	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Malcolm, David	X 5374 Ext 2007	HM: 295-7826 CELL: 797-1239	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Sweeney, Adam	X 5374 Ext 2007	HM: 294-0556 CELL: 797-1238	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Battles, Robert	X 5374 Ext 2007	HM: 425-346-9270 CELL:	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Stephenson, S.	X 5374 Ext 2007	HM: 904-382-1820 CELL: 797-1240	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Thorpe, Chris	X 5374 Ext 2007	HM: 731-3863 CELL:731-3863	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Kolarov, Tiffany	X 5374 Ext 2007	HM: CELL:434-0500	15 - 30	OSR	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007

Notes:

- (1) Training records located in PORT OPS Office Central file.
- (2) OSR — Oil spill response

TABLE FRP 2.4: FACILITY EMERGENCY RESPONSE/CLEANUP TEAM

NAME	DAY PHONE EXT (NEXTEL)	AFTER HOURS	RESPONSE TIME (Min)	RESPONSE JOB	TRAINING TYPE	TRAINING DATE
Courtright, Robert	(305) 293-2881 797-4461	(305) 292-0965	15 - 30	Incident Commander, Planning, Permitting	24-Hour Hazwoper, 8-Hour annual	April 2006 April 2007
Demes, R	(305) 293-2488	(305) 656-1671	15 - 30	On Scene Commander	24-Hour Hazwoper, 8-Hour annual	April 2006 April 2007
Stanley, H	(305) 293-2060	—	—	As directed	24-Hour Hazwoper, 8-Hour annual	April 2006 April 2007
Wallace, Guillermo	(305) 293-2061	—	—	As directed	24-Hour Hazwoper, 8-Hour annual	April 2006 April 2007
Barham, Edward	(305) 293-2911	—	—	As directed	24-Hour Hazwoper, 8-Hour annual	April 2006 April 2007
McNeil, P.	360-1077 Cellular	(305) 744-0202	15 - 30	Haz Waste Management	40-Hour Hazwoper, 8-Hour annual	July '04
DiPaolo, Peter	360-3679 Cellular	745-6643	15 - 30	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Phillips-Ford, Greta		293-0804	15 - 30	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Dritsas, Michael		923-5660	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Hodgeman, Greg		297-5825	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Lopez, Jose	360-7695	402-6087	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Clem, Michael		745-2755	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Farmer, Edward	587-4269	872-0149	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Boyd, Patricia	587-4269	292-9943	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007

Thompson, Brent	296-8765	240-1189	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Denny, Timothy	360-1222	HM: 295-6476	60	OSR Support – Seaward Serv	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	October 2004 June 2007 May 2007
Sykora, Steve	797-8576	797-8576	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Ford, Rick	296-1397	304-8287	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Robitoulle, Marc	293-4181		60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2006 June 2007 May 2007
Dobler, Aaron	293-4181	393-4814	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	April 2005 June 2007
Leonard, William	394-0621	394-0621	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	Sep 2005
Schiller, Steve	849-1917	849-1917	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	August 2005 June 2007 May 2007
Lot, Mario	304-8674	304-8674	60	OSR Support – Seaward Serv.	32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	August 2005 June 2007 May 2007
Mendez, Tony	797-5754	797-5754			32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	August 2005 June 2007 May 2007
Pritchard, Lee	304-8944	304-8944			32Hr HAZWOPER 8-Hr Refresher 40Hr FRT	August 2005 June 2007 May 2007

TABLE FRP 2.5: FACILITY SPILL MANAGEMENT TEAM

NAME	DAY PHONE (NEXTEL)	AFTER HOURS	RESPONSE TIME (Min)	RESPONSE JOB	TRAINING TYPE *	TRAINING DATE
Safety Director Ron Cooke	(305) 293-2433 Cellular 797-4411	(305) 292-4807	15 - 30	Safety and Health Director	40-Hour Hazwoper, 8-Hour annual ICS 300-400	October 04 April 07 August 06
Ed Dononhue	(305) 293-2314 Cellular 797-4412	(305) 292-6593	15 - 30	Safety & Health Specialist	40-Hour Hazwoper, 8-Hour annual ICS 300-400	October 04 April 07 August 06
Glenn Hayes, Sr	(305) 293-2757 Cellular 797-4414	(305) 296-1134	15 - 30	Safety & Health Specialist	40-Hour Hazwoper, 8-Hour annual	October 04 April 07
Julie Campbell	(305) 293-2446	(305) 292-7710	15 - 30	Safety & Health Specialist	40-Hour Hazwoper, 8-Hour annual	August 06 April 07
Rosita Bernhard	(305) 293-2316	(305) 294-5301	15 - 30	Safety Technician	40-Hour Hazwoper, 8-Hour annual	August 06 April 07
Fire Chief	(305) 293-5888 797-4401	(305) 293-3333	2 - 15	Operations Section Chief	40-Hour Hazwoper, 8-Hour annual	June 04
OSR QMC Cich	X 5671 (797-4445)	HM: 795-1299 Cell 797-4445	15 - 30	IC, Operations Section Chief	40-Hour Hazwoper, 8-Hour annual	May 2006 May 2006
Environmental Director	(305) 293-2911 797-4461		15 - 30	IC, Planning Section Chief	24-Hour Hazwoper, 8-Hour annual	April 06 April 07
Environmental Engineer						
Public Affairs Officer	(305) 293-2425 (305) 797-4426	FAX: (305) 293-2230	15 - 30	Alert Surrounding Areas, Handle Media		
Medical Officer	(305) 797-8008		15 - 30	Supervise Medical Support		
Security Officer	(305) 293-2921 797-4418		15 - 30	Alert Facility Personnel, Handle Security		
Public Works Officer	(305) 293-2304 CELL: (305) 797-4355		15 - 30	Coordinate Equipment and Personnel	40-Hour Hazwoper, 8-Hour annual	July '02
Planning Director			15 - 60			
Supply Officer	(305) 293-2189 797-4382		15 - 30	Logistics Section Chief		
Comptroller	(305) 293-2636 240-0635		15 - 30	Finance Section Chief		
Legal Officer	(305) 293-2632		15 - 30	Legal Officer		

Spill Management Team will expand as necessary during actual incident

**TABLE FRP 2.6: KEY WEST PIPELINE COMPANY
EMERGENCY RESPONSE PERSONNEL**

NAME	DAY PHONE	24-HR PHONE	RESPONSE TIME (Min)	RESPONSE JOB
John Sykes, Terminal Manger	(305) 294-4812 Fax (305) 294-0844	Home: (305) 296-0271	30 min	Qualified Individual
Vaughan W. Walker, Sr.	(305) 294-4812 Fax: (305) 294-0844	Cell: (305) 522-0421 Hm: (305) 872-9640	30 min	Alternate Qualified Individual
David Gonzalez	(305) 294-4812 Fax: (305) 294-0844	Cell: (305) 522-0252		
Mark Rauch, President, Key West Pipeline	(713) 627-1700	Cell: (713) 829-0065 Hm: (713) 622-8004	24-Hours	Provide Additional Equipment and Personnel
Cliff Berry, Inc	—	(800) 899-SPIL [7745] (954) 763-3390.	4 Hours	Response Contractor

**TABLE FRP 2.7: AVAILABLE ADJACENT NAVY/DOD
EMERGENCY RESPONSE PERSONNEL**

NAME	DAY PHONE	24-HR PHONE	RESPONSE TIME (Min)	RESPONSE JOB	TRAINING TYPE	TRAINING DATE
Navy On-Scene Coordinator	(904) 542-8044	(904) 542-3118	12 Hours	Regional Qualified Individual	NA	NA
Deputy Navy On-Scene Coordinator	(904) 542-3166	(904) 542-3166	12 Hours	Alternate Regional Qualified Individual	NA	NA
NAS JAX	(904) 542-2717 Ext. 116	(904) 542-2338	12 Hours	Provide Additional Equipment and Personnel	Varies	Varies
NS Mayport	(904) 270-6730	(904) 270-5401	12 Hours	Provide Additional Equipment and Personnel	Varies	Varies

TABLE FRP 2.8: EMERGENCY RESPONSE CONTRACTORS/COOPERATIVES

CONTRACTOR	DAY PHONE	24-HR PHONE	RESPONSE TIME (MINUTES)	CONTRACT RESPONSIBILITY/ CAPABILITY
Southern Waste Services — Environmental First Response	(800) 852-8878	(800) 852-8878	4 Hours	Level E equipment and personnel resources
Clean Caribbean, Inc.	(954) 983-9880	(954) 983-9880	4 Hours	Level E equipment and personnel resources
Cliff Berry & Associates	(954) 763-3390	(800) 899-7745	2.5 to 4 Hours	Provide additional equipment and personnel resources

TABLE FRP 2.9: OTHER EMERGENCY RESPONSE PERSONNEL RESOURCES

SOURCE	DAY PHONE	24-HR PHONE	RESPONSE TIME (MINUTES)	CONTRACT RESPONSIBILITY/ CAPABILITY
EPA Emergency Response	(404) 562-8700	(404) 562-8700		Response Expertise (Land Spills Only)
USCG (RRT Activation) Miami 7th CG District	(305) 536-5651 (305) 536-5691	(305) 536-5692	Varies	Additional Equipment and Response Expertise
Florida Marine Patrol	(800) 342-5367	(800) 342-5367	Varies	Additional Equipment and Response Personnel
Department of Natural Resources	(305) 289-2310	(800) 320-0519	Varies	Response Expertise Wildlife Support
National Response Center	(800) 424-8802	(800) 424-8802	Varies	Additional Equipment and Response Personnel
National Oceanic and Atmospheric Administration	(305) 292-0311	(305) 797-7223 Oil Spills	Varies	Response Expertise Trajectory Modeling
	(305) 530-7931 Scientific Coord	Trajectories Model (206) 526-4911		
Chemtrec	(800) 424-9300	(800) 424-9300	Varies	Chemicals and Hazardous Substances Expertise
SUPSALV	(202) 781-1731	16:00-0700 M-F 24- hours. Weekends (202) 781-3889 Contact: Duty Officer	Varies	Additional Equipment and Response Personnel

2.3 EQUIPMENT LIST: This section provides detailed information on facility and other response equipment that may be used in response to a facility release. The following equipment data should be included in the plan:

TABLE FRP 2.10: ONSITE INVENTORY: SKIMMERS				
TOPIC		SKIMMER TYPE 1	SKIMMER TYPE 2	SKIMMER TYPE 3
TYPE	OPERATING PRINCIPLE (DIP, weir, belt, etc.)	Belt		
	MANNED OR UNMANNED	Manned		
RECOVERY RATES	NOMINAL (gal/min)			
	DE-RATED DAILY (gal/day)	10,080		
	" " (bbl/day)	240		
	BUILT-IN STORAGE (gal)	1,000		
	BLADDER STORAGE (gal)	1,250		
NUMBER	ON HAND	1		
MANUFACTURER	BRAND	Kvichak		
	MODEL	28'		
	YEAR	1997		
MOBILIZATION	POINT OF CONTACT DAY PHONE 24-HOUR PHONE	Oil Spill Chief X 4461 (305) 797-4445		
	STORAGE LOCATION	Building 284 Truman Annex		
	TRANSPORTATION NEEDED	Boat Trailer		
	LAUNCH SITE(S)	Boat Ramps		
	CREW NEEDED	1 Driver 2 Operators		
	TIME (hrs) (request → on water)	1		
UPKEEP	OPERATIONAL STATUS	Full		
	INSPECTION FREQUENCY	Weekly		
	DATE OF LAST INSPECTION	(1)		
	TEST FREQUENCY	Monthly		
	DATE LAST TEST RUN	(1)		
	DATE LAST FUEL CHANGE	(1)		
DEPLOYMENT	LAST DEPLOYMENT DRILL DATE	(1)		
	DEPLOYMENT FREQUENCY	Monthly		
TOTAL DE-RATED DAILY RECOVERY AVAILABLE ONSITE FROM SKIMMERS (BBL/DAY): 240				
COMMENTS:				

(1) Records located in PORT OPS central files

TABLE FRP 2.11: ONSITE INVENTORY: VACUUM TRUCKS				
TOPIC		TRUCK TYPE 1	TRUCK TYPE 2	TRUCK TYPE 3
PICK-UP HEAD TYPE (manta, weir, etc.)		Floating Weir	Floating Weir	
RECOVERY RATES	HEAD NOMINAL (gal/min)	80	80	
	DE-RATED DAILY (gal/day)	23,040	23,040	
	DE-RATED DAILY (bbl/day)	549	549	
	TANK SIZE (gal)	2,000	1800	
NUMBER	ON HAND	1		
MANUFACTURER	BRAND	Freightliner	International	
	MODEL	Dominator		
	YEAR	93	99	
MOBILIZATION	POINT OF CONTACT DAY PHONE 24-HOUR PHONE	Oil Spill Chief X 4461 (305) 797-4445	Oil Spill Chief X 4461 (305) 797-4445	
	STORAGE LOCATION	Building 284 Truman Annex	Building 284 Truman Annex	
	CREW NEEDED	2	2	
	TIME (hrs)	1/2	1/2	
UPKEEP	OPERATIONAL STATUS	Good	Good	
	INSPECTION FREQUENCY	Monthly	Monthly	
	DATE OF LAST INSPECTION	(1)	(1)	
	TEST FREQUENCY	Semi-annually	Semi-annually	
	DATE LAST TEST RUN	(1)	(1)	
DEPLOYMENT	LAST DEPLOYMENT DRILL DATE	(1)	(1)	
	DEPLOYMENT FREQUENCY	In routine operation	In routine operation	
TOTAL DE-RATED DAILY RECOVERY AVAILABLE ONSITE FROM VACUUM TRUCKS (BBL/DAY): 1098				
COMMENTS: (1) Facility inspection records includes inspection for all vehicles. Records are kept in Building A4078.				

TABLE FRP 2.12: ONSITE INVENTORY: BOOM				
TOPIC		BOOM TYPE 1	BOOM TYPE 2	BOOM TYPE 3
TYPE	CLASS (permanent, I, II, etc.)	Perm	II	
	SKIRT SIZE (18", 24", etc.)	12", 18" 24"	24	
	STANDARD SECTION LENGTH (ft)	100'	50	
	END CONNECTORS (ASTM, Navy)	Z Type	ASTM	
CONTAINMENT	LENGTH (ft)	500	10,900	
MANUFACTURE	BRAND	American Boom and Barrier & Slicbar	American Boom and Barrier	
	MODEL		UNK	
	YEAR	2003	98	
MOBILIZATION	POINT OF CONTACT DAY PHONE 24-HOUR PHONE	Oil Spill Chief X 4461 (305) 797-4445	Oil Spill Chief X 4461 (305) 797-4445	
	STORAGE LOCATION	Truman Annex	Truman Annex: 8,900 Boca Chica Marina: 1,000 Trumbo Pt.: 1,000	
	TRANSPORTATION NEEDED	2 boats (V-Leg)	Boom Platform Boat	
	CREW NEEDED	4-6	4-6	
	TIME (hrs) (request → in water)	1.5	0.5	
	UPKEEP	OPERATIONAL STATUS	Full	Full
	INSPECTION FREQUENCY	Monthly	Monthly	
	DATE OF LAST INSPECTION	(1)	(1)	
DEPLOYMENT	LAST DEPLOYMENT DRILL DATE	(1)	(1)	
	DEPLOYMENT FREQUENCY	Monthly	Monthly	
COMMENTS:				

(1) Records located in PORT OPS files

Note: Key West Pipeline Company (KWPC) Terminal maintains the following additional equipment in a trailer and cargo container, maintained by Cliff Berry Inc. The equipment is located on the Trumbo Point tank farm just west of KWPC Tank 1. Additional materials may be available in the trailer and cargo container, see periodic updated lists provided by CBI and kept on file at the KWPC office.

- 600 ft, 18-inch permanent (Harbor) boom.
- 120 ft, 8-inch absorbent boom.
- 200 ft, 5-inch absorbent boom.
- 300 ft, Harbor boom deployed Pier D-3 ⁽²⁾
- 500 ft absorbent blanket.
- 280 ft, absorbent sweep.
- 4 boom anchors.

TABLE FRP 2.13: ONSITE INVENTORY: PUMPING EQUIPMENT				
TOPIC		PUMP TYPE 1	PUMP TYPE 2	PUMP TYPE 3
PUMPS	NUMBER	2	1	
	OPERATING POWER (compressed air, electric, etc.)	Air	Air	
	NOMINAL RATE (gal/min)			
	HOSE CONNECTION (3/4" twist-lock, etc.)	1" cam lock	2" cam lock	
MANUFACTURER	BRAND	Sand Piper	Versamatic	
	MODEL	Unk	Unk	
	YEAR	Unk	Unk	
MOBILIZATION	POINT OF CONTACT DAY PHONE 24-HOUR PHONE	Oil Spill Chief X 4461 (305) 797-4445	Oil Spill Chief X 4461 (305) 797-4445	
	STORAGE LOCATION	Command Trailer Truman Annex	Command Trailer Truman Annex	
	TRANSPORTATION NEEDED	Tow vehicle	Tow vehicle	
	CREW NEEDED	2	2	
	TIME (hrs) (request → in use)	.5	.5	
UPKEEP	OPERATIONAL STATUS	Good	Good	
	INSPECTION FREQUENCY	Quarterly	Quarterly	
	DATE OF LAST INSPECTION	(1)	(1)	
	TEST FREQUENCY	6 months	6 months	
	DATE LAST TEST RUN	(1)	(1)	
DEPLOYMENT	LAST DEPLOYMENT DRILL DATE	(1)	(1)	
	DEPLOYMENT FREQUENCY	6 months	6 months	
COMPATIBLE COMPRESSORS	NUMBER	1	1	
COMPATIBLE HOSE	LENGTH (ft)	50'	50'	
COMMENTS: Pumps are available at Naval Air Station Key West. However, these pumps have not been identified by Public Works as Emergency Response Equipment.				
Common Navy pumps: Wilden Model M8: comp air, 155 gal/min (delivers 75-100), 3/4" twist-locks.				

TABLE FRP 2.14: ONSITE INVENTORY: SORBENTS (STOCKPILED)					
STOCK-PILED ITEM	N-S-N	STOCK-PILE LOCATION	PURCHASE UNIT	SORPTION CAPACITY (gal/unit)	STOCK ON HAND (units)
Sorbent Boom (white)	Open Purchase	Building 284	60-ft package	20	36
Sorbent Boom (green)	9330-01-334-5036	Building 284	60-ft package	13	13
Sorbent Rolls	Open Purchase	Building 284	bale	51	60
Sorbent	Open Purchase	Building 284	bale	26	200
Sorbent Pillow	Open Purchase	Building 284	bale	40	
TOTAL SORPTION CAPACITY ON HAND (GAL): 5,532					
POINT OF CONTACT: Oil Spill Response		DAY PHONE: (305) 293-5374			
		24-HOUR PHONE: (305) 797-4360			
COMMENTS:					

TABLE 2.15: ONSITE INVENTORY: TOOLS AND SUPPLIES (STOCKPILED)				
STOCKPILED ITEM	NATIONAL STOCK NUMBER	STOCKPILE LOCATION	UNIT	STOCK ON HAND (units)
Rope, 3/8" Nylon	4020-00-946-0436		roll	
Rope, 1/2" Nylon	4020-00-106-9361		roll	
Rope, 3/4" Nylon	4020-00-141-7152		roll	
Rope, 3/8" Manila	4020-00-834-0708		coil	
Rope, 1/2" Manila	4020-00-238-7732		coil	
Rope, 3/4" Manila	4020-00-238-7734		coil	
Parachute Cord	4020-00-246-0688		coil	
Shovel, Sq Nose (Long)	5120-00-293-3330	Public Works Hazardous Collection Locations (1)*	each	35
Shovel, Sq Nose (Short)	5120-00-224-9326		each	
Shovel, Rd Nose (Long)	5120-00-188-8450	Public Works Hazardous Collection Locations (1)*	each	5
Shovel, Rd Nose (Short)	5120-00-293-3336		each	
Mop Squeezer	7920-00-170-5449	Public Works Hazardous Collection Locations (1)*	each	30
Mop, Cotton	7920-00-224-8726	Public Works Hazardous Collection Locations (1)*	each	30
Squeegee			each	
Can, Garbage (30-gal)	7240-00-160-0440		each	
Rags	7920-00-223-1014	Public Works Building A-437	50 lb bale	3
Pail, Plastic (3-gal)	7240-00-246-1097	Public Works Hazardous Collection Locations (1)*	each	30
Pail, Plastic (5-gal)	7240-00-943-7105	Public Works Building A-437	each	12
Bags, Sand	8105-00-965-2509		bale	
		Public Works Building A-437		25
Gloves, Rubber	8415-00-935-2833	Fire Department Building A-132.	pair	180
Goggles, Plastic	8465-01-004-2893	Public Works Building A-437	pair	25
Bags, Plastic (large)	8105-01-183-9768	Public Works Building A-437	box	6
		Public Works Building A-437		25
Rubber Boots		Fire Department Building A-132.		37
POINT OF CONTACT: Environmental Coordinator DAY PHONE: (305) 293-2030 24-HOUR PHONE: (305) 797-4453				
COMMENTS: * indicates number stored at each location.				
Purchase of tools and supplies is on-going; stocks are replenished as needed, so year of purchase information is unavailable.				

(1) NAS Key West has this equipment stored evenly among the 27 hazardous waste sites located throughout the base.

TABLE FRP 2.16: ONSITE INVENTORY: COMMUNICATIONS EQUIPMENT (IN USE)

TYPE	ASSIGNED TO (# Available)	CALL SIGN OR PHONE NUMBER	PRIMARY NETWORK/ FREQUENCY	BRAND AND MODEL (year, if available)	CHARGER OR STORAGE LOCATION	OP STATUS
HAND-HELD RADIOS	Fire Department (25)	To be assigned at time of use	140.025	Motorola HT-1000	(17) Building A-132 (8) Building C-5 TA 507	Good
	Security (27)	To be assigned at time of use	139.525	Motorola HT-1000	Building A-314	Good
	Fuels (1)	To be assigned at time of use	152.915 MHZ	Motorola HT 600	Building A-937	Good
	Oil Spill Response (10)	OSR	VHF 66	Various	Building 284 Truman Annex	Good
FIXED IN OIL SPILL RESPONSE VESSELS	Oil Spill Response (7)	OSR 1 - 7	VHF 66	Various	Truman Annex	Good
CAR/TRUCK RADIOS	Public Work (2)	To be assigned at time of use	140.825	Unknown	Building 629	Good
	Fire Department (12)	To be assigned at time of use	(6) Structural 140.025 (6) Air Field 140.1	MITREK	Building A-132 Building C-5 Building TA507	Good
	Security (12)	To be assigned at time of use	139.525	MAXTRAC 300	Building A-314	Good
	Vacuum Trucks	Vac Truck	VHF 66	Motorola	Truman Annex	Good
BASE STATION RADIOS	Fire Department (3)	To be assigned at time of use	(3) Structural 140.025 (1) Air Field 140.1	Conselette	(1) Building A-132 (1) Building C-5 (1) Building TA-507	Good
	Security (3)	To be assigned at time of use	139.525	Desktrac Conselette Spectra	Security	Good
	Command Center Trailer	OSR Command	VHF 16 & 66	Motorola	Truman Annex	Good
PHONES	Quarterdeck	305-293-2268	—	—	—	—

POINT OF CONTACT: Ground Electronics DAY PHONE: (305) 293-2258 24-Hour PHONE: (305) 293-4316 (#070)

WARNING: ONLY "INTRINSICALLY SAFE" HANDHELD RADIOS AND RECHARGEABLE BATTERY PACKS SHOULD BE USED AT OIL SPILLS. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe". This inventory table functions both as an ONSITE Inventory and as part of the Communications Plan. "Intrinsically safe" Motorola handheld radios and battery packs are marked with a green dot on the back, at the junction of the radio body and its battery pack; if BOTH dots are not present, the radio is not "intrinsically safe."

TABLE FRP 2.17: ONSITE INVENTORY: COMMUNICATIONS EQUIPMENT (IN USE)

TYPE	ASSIGNED TO	CALL SIGN OR PHONE NUMBER
NEXTTEL	FIRE CHIEF	(305) 797-4401
	ASST FIRE CHIEF	(305) 797-4397
	XO	(305) 797-4349
	SECURITY MAINTENANCE	(305) 797-0988
	SAFETY	(305) 797-4412
	OIL SPILL CHIEF	(305) 797-4445
	ENVIRONMENTAL PROTECTION SPECIALIST #1	(305) 797-4455
	ENVIRONMENTAL PROTECTION SPECIALIST #3	(305) 797-4461
	HAZWASTE MANAGER	(305) 797-4454
	WATCH COMMANDER	(305) 797-4423
	PWO	(305) 797-4355

POINT OF CONTACT: Ground Electronics DAY PHONE: (305) 293-2258 24-HOUR PHONE: (305) 293-4316 (#070)

WARNING: ONLY "INTRINSICALLY SAFE" HANDHELD RADIOS AND RECHARGEABLE BATTERY PACKS SHOULD BE USED AT OIL SPILLS. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe". This inventory table functions both as an ONSITE Inventory and as part of the Communications Plan. "Intrinsically safe" Motorola handheld radios and battery packs are marked with a green dot on the back, at the junction of the radio body and its battery pack; if BOTH dots are not present, the radio is not "intrinsically safe."

TABLE FRP 2.18: ONSITE INVENTORY: FIRE FIGHTING EQUIPMENT						
EQUIPMENT	HOW MANY	TYPE	BRAND AND MODEL	YEAR	STORAGE LOCATION	OP STATUS
FOAM-DISPENSING VEHICLES	2	Crash Trucks	OSHKOSH T-1500	2001	Building A-132	Good
	1		OSHKOSH T1000	2001	Building A-132	Good
	1	AMERTEK	CF-4000L	1992	Building A-132	Reserve
	1	Pumper	Pierce-1250GPM	2002	Building A-132	Good
	1	Ladder	Pierce Telesquirt	1997	Building A-132	Good
	1	Pumper	Simon 1000 GPM	1990	Building A-132	Reserve
	1	Pumper	Simon 1000 GPM	1990	Building A-132	Reserve
	1	Pumper	KME 1250 GPM	1994	Building C-5	Good
	1	Pumper	KME 1250 GPM	1994	Bldg TA-507	Down
	1	Rescue Truck	International	1992	Building A-132	Good
OTHER:	1	Pick-Up	Dodge	2001	Building C-5	Good
	1	Pick-up	Chevy	2001	Building C-5	Good
	1	Utility	Chevy	2003	Building C-5	Good
	1	Pick-Up	Ford F-350	2005	Building A-132	Good
		Step-Van	Ford HAZMAT-1	2001	Building A-132	
	Step-Van	Ford HAZMAT-2	2003	TA-507		
POINT OF CONTACT: Fire Department DAY PHONE: (305) 293-2776 / 293-2775 24-HOUR PHONE: (305) 293-3333						
COMMENTS: Building A-132 is the location of the Fire Department.						

TABLE FRP 2.19: ONSITE INVENTORY: PERSONAL PROTECTIVE EQUIPMENT

GEAR	LEVEL OF PROTECTION				HOW MANY	STORAGE LOCATION	OP STATUS
	A	B	C	D			
SCBA RESPIRATOR	X				26	(21) Fire Department (Building A-132) (5) Building C-5	Good
	X				2	HAZWASTE Storage (Building A-4078)	
	X				2	NAVOSH (Building A-515)	
SAR RESPIRATOR W/ESCAPE SCBA	X				2	HAZWASTE Storage (Building A-4078)	Good
	X				2		
MOON SUIT	X				2	HAZWASTE Storage (Building A-4078)	Good
INNER CHEMICAL-RESISTANT GLOVES	X				18	Oil Spill Response (Building TA-284)	Good
CHEMICAL-RESISTANT BOOTS/SHOES	X				21	Oil Spill Response Oil Spill Response (Building TA-284)	
HARD HAT	X				15	Oil Spill Response (Building TA-284)) Hazardous Waste Storage (Building A-4078)	Good
	X				4		
CHEMICAL-RESISTANT CLOTHING		X			200	Oil Spill Response (Building TA-284)Public Works (6)* HAZWASTE Storage (Building A-4078)	Good
	X	X			180		
OUTER CHEMICAL-RESISTANT GLOVES		X			6	HAZWASTE Storage (Building A-4078) Public Works (12)* Oil Spill Response (Building TA-284)	Good
		X			360		
		X			4		
FULL-FACE CANISTER RESPIRATOR			X		9	Oil Spill Response (Building TA-284)Public Works (2)* HAZWASTE Storage (Building A-4078)	Good
			X		60		
					4		
SAFETY GOGGLES			X	X	60	Public Works (2)* Oil Spill Response (Building TA-284)	Good
			X		14		
OTHER: Life Vests					40	Oil Spill Response (Building TA-284)	Good
OTHER:							
POINT OF CONTACT: Environmental Coordinator DAY PHONE: (305) 293-2030 24-HOUR PHONE: (305) 797-4453							
COMMENTS: * Indicates number at each location							
Purchase of many of these items is on-going; stocks are replenished as needed, so year of purchase information is unavailable.							
LEVEL A PROTECTION: respiratory: max eye: max skin: max	LEVEL B PROTECTION: respiratory: max eye: max skin: medium	LEVEL C PROTECTION: respiratory: medium eye: max skin: medium	LEVEL D PROTECTION: respiratory: none eye: medium skin: minimal				

TABLE FRP 2.20: ONSITE INVENTORY: MISCELLANEOUS CAPITAL EQUIPMENT

EQUIPMENT	HOW MANY	TYPE	BRAND AND MODEL	YEAR	STORAGE LOCATION	OP STATUS
BACKHOE	1	Backhoe	John Deere 310-D	91	Motor Pool	Good
MISC EARTH-MOVING	2	Front End Loader	Cat 950 F	94	Motor Pool	Good
OIL SPILL RESPONSE & BOOM-DEPLOYING BOATS	1	30 ft	Seaark	1999	Building 284	Good
		28 ft	Kvichak	1997	Building 284	Good
		25 ft	Seaark	2000	Building 284	Good
		25 ft	Seaark	Unk	Building 284	Good
		22 ft	Boston Whaler	Unk	Building 284	Good
		22 ft	Boston Whaler	Unk	Building 284	Good
MISC BOATS	1	31 ft	Avanti	Unk	Security	Good
		25 ft	Boston Whaler	88	Security	Good
		22 ft	Boston Whaler	Unk	Security	Good
		21 ft	Boston Whaler	Unk	Security	Good
OTHER:	1	Wildlife Rescue & Rehab Trailer	Wells Cargo EWI222	94	Building A-824	Good
	3	Boom Trailers	USN	02	Oil Spill Response	Good
	1	Command Trailer				
	1	Earth Auger	Hwy. maint. Comp. HCBMS	88	Motor Pool	Fair
POINT OF CONTACT: Transportation Director DAY PHONE: (305) 293-2586						
COMMENTS: The Public Works Transportation Department is located in Building #A-438						

2.4 DISPERSANTS:

The Region IV Regional Response Team (RRT IV) policy on dispersant use provides the Federal On-Scene Coordinator with pre-authorization to use dispersants in response to oil discharges within the RRT IV area of responsibility under the conditions set forth by the 1996 South Florida Area Contingency Plan (ACP), Annex G, Appendix II. The South Florida ACP provides a comprehensive discussion on dispersant usage, including: logistics, monitoring, application zones, protocols, maps, decision-making tools, and documentation forms. Consideration and approval of dispersants usage will be within the purview of Unified Command during an incident response after due consideration of mechanical recovery options.

2.5 EVACUATION PLANS:

TABLE FRP 2.21: INSTALLATION AND LOCAL EVACUATION PLANS		
PLAN AREA OR TYPE	COGNIZANT ORGANIZATION	WHERE COPY OF PLAN CAN BE FOUND
NAS Key West Disaster Preparedness Plan (DPP) Order #3441.1 ALPHA	Commander, NAS Key West, Key West, FL	A copy of the DPP can be located at the Administration Building (A-418) or with the Disaster Preparedness Officer in Building A-244.

TABLE FRP 2.22: EVACUATION ALERTING			
ORGANIZATIONS TO BE ALERTED IF AN OPA 90 FACILITY IS EVACUATED		DAY PHONE	24-HR PHONE
Naval Air Station Key West	1. DISASTER PREPAREDNESS OFFICER (Steve McBride)	(305) 293-2007	(305) 293-2007
	2. SPILL NOTIFICATION CENTER	(305) 293-3333	(305) 293-3333
	3. NAS KEY WEST SECURITY	(305) 293-2531	(305) 293-2531
LOCAL AUTHORITIES (law enforcement, fire, emergency planning, etc.)	1. Monroe County Sheriff's Office	(305) 296-2424	911
	2. Florida Highway Patrol	(305) 292-6711	(305) 289-2383
	3. Florida Marine Patrol	(305) 289-2323	(800) 342-5367
	4. Key West Fire Department	(305) 292-8186	911
	5. Key West Police Department	(305) 292-2514	911
NEARBY INSTITUTIONS (schools, hospitals, etc.)	1. Lower Florida Keys Health System	(305) 294-5531	(305) 294-5531
	2. Fishermans Hospital	(305) 743-5533	(305) 743-5533
	3. Mariners Hospital	(305) 852-4418	(305) 852-4418
	4. Superintendent of Schools, Monroe County School Board	(305) 296-1400	(305) 296-1400
RADIO STATIONS	1. WAVK FM 106.3	(305) 743-3434	(305) 743-3434
	2. WFKZ FM 103.1	(305) 852-9085	(305) 852-9085
	3. WKRY FM 93.5	(305) 296-2435	(305) 296-2435

TABLE FRP 2.22: EVACUATION ALERTING (Cont.)			
ORGANIZATIONS TO BE ALERTED IF AN OPA 90 FACILITY IS EVACUATED		DAY PHONE	24-HR PHONE
TELEVISION STATIONS	1. WPLG - TV 10	(305) 325-2370 (305) 325-2418 (305) 325-2354	(305) 325-2370
	2. WSVN - TV 7	(305) 795-2797	(305) 754-8243
	3. WTVJ - TV 4	(305) 789-4200	(305) 789-4200

TABLE FRP 2.23: EVACUATION PLANS: NAS KEY WEST		
TOPIC	DISCUSSION OF KEY FACTS (OF USE DURING AN EMERGENCY)	
HAZARDOUS SUBSTANCES (with toxicity or volume to possibly trigger facility evacuation)	INVENTORY (with quantity and storage location)	The facility is located on Boca Chica Key and Key West, Florida and stores a variety of hazardous substances in varying quantities and a total of approximately 1,100,000 gallons of petroleum products in above and underground storage tanks including Fuel Oil, Diesel, Jet Fuel (JP-5), and Gasoline.
	PROBABLE SPILL FLOW PATHWAYS	Most spilled fuel will be contained by the concrete containment. Fuel that escapes containment will flow toward nearby storm drains. Fuel that enters the storm drains will flow first into on base lagoons or drainage ditches, then into either into the Gulf of Mexico or the Atlantic Ocean if not contained.
	HAZARDS TO PERSONNEL	Petroleum products are flammable and present inhalation and skin contact hazards.
	WIND CONDITIONS AFFECTING HAZARDS	Vapors from petroleum products will be dispersed downwind. All personnel should be kept upwind of spilled petroleum. Buildings located downwind of large spills may need to be evacuated. This decision will be made after evaluating existing conditions. Spills on water may be affected by high wind speeds.
	WATER CONDITIONS AFFECTING HAZARDS	JP-5 and Gasoline are lighter than water and will spread in the direction of the surface water flow. Fuel oil, diesel, oil and waste oil products will gradually dissolve and/or sink in water.
EVACUATION INITIATION	WHO DECLARES EVACUATION	The FIC will determine when an evacuation of part or all of NAVAL AIR STATION KEY WEST is required. The FIC in consultation with the FOSC, and State officials will determine when an evacuation of the community surrounding NAS KEY WEST is required.
	HOW SURROUNDING AREA ALERTING INITIATED	The community surrounding NAS KEY WEST will be notified of the need for evacuation by local and state police.
	HOW FACILITY ALERTING INITIATED	Alerting of facility personnel will be initiated by the FIC through NAS KEY WEST Security.
	METHODS OF ALERTING FACILITY PERSONNEL	Security Personnel will alert facility personnel via trucks equipped with loudspeaker equipment. Also, Emergency Broadcast System, Disaster Control Net, telephone, and any other means available may be used.
	ALARM/SIREN LOCATIONS	NONE
	ESTIMATED FACILITY EVACUATION TIME	UNKNOWN
ONSITE RESOURCES	"SAFE HAVEN" LOCATIONS	Safe Havens include Buildings 727, 994, 2076, and 283, according to the DPP, Tab B to Appendix 2 of Annex C in the NAS Key West OPLAN 1-90.
	EMERGENCY BREATHING GEAR LOCATIONS	Emergency Breathing Gear is located at the fire department.
DISASTER RESPONSE	FIRE/AMBULANCE ARRIVAL ROUTE	Fire/Ambulances should enter NAS KEY WEST through the Main Gates on Boca Chica and Key West (Truman Annex, Trumbo Point, and Sigsbee Point) and proceed to the FISC.
	MEDICAL FACILITY FOR INJURED	NAS Key West Medical Center, Building 4011 on Forrestal Street (Boca Chica). Key West Naval Hospital, Building L-1 on Roosevelt Street (Key West).
	HOW INJURED WILL BE TRANSPORTED	Injured personnel will be transported via ambulance.

TABLE FRP 2.23: EVACUATION PLANS: NAS KEY WEST		
TOPIC		DISCUSSION OF KEY FACTS (OF USE DURING AN EMERGENCY)
INITIAL STAGING AREAS IN FACILITY	WHERE	Emergency Equipment and Personnel may be staged at Building C-1 behind the Bachelor Officer's Quarters.
	HOW PERSONNEL ARE ACCOUNTED FOR	The FISC officer is responsible for accounting for FISC personnel and visitors to the FISC.
EVACUATION ROUTES OUT OF FACILITY	HOW POSTED IN FACILITY	Evacuation routes are identified on ERAP Maps 1-1 through 1-7.
	ROUTES (primary)	The primary evacuation route is via air under the direction of CINCLANTFLT in liaison with the Military Airlift Command.
	ROUTES (secondary)	The secondary evacuation route is through the Main Gate at each respective facility.
SAFE STAGING AREA(S) OUTSIDE FACILITY	LOCATION OF AREA(S)	NONE
	ROUTE FROM FACILITY (primary)	Facility Personnel should proceed through the main gate and proceed North on U.S. Route 1 until sufficiently distanced from the area.
	ROUTE FROM FACILITY (secondary)	The only other route from the facility would involve air or water transport.
	HOW PERSONNEL ARE ACCOUNTED FOR	Personnel will be logged out of / into the staging area by supervisor of responding units.
COMMAND CENTER	WHERE	Information Operations Center (IOC) Building A-324
	COMMUNICATIONS CAPABILITIES	Telephone: (305) 293-2268
COMMENTS:		

2.6 QUALIFIED INDIVIDUAL'S DUTIES:

Under the Navy's two-tiered planning concept, the Facility Qualified Individual has full authority and the duty, as described below, to respond to facility oil and hazardous substance spills, until relieved by the RQI/NOSC. As outlined in the NCP, the predesignated RQI/NOSC is the Federal On-Scene Coordinator for hazardous substance (HS) spills originating from Navy shore facilities or vessels. Under Navy policy, the FQI/FIC has full authority and responsibility to coordinate the response to all oil spills under the direction of either the predesignated EPA or USCG FOSC. The FQI/FIC reports directly to the NOSC.

TABLE FRP 2.24: FQI/FIC AND ALTERNATE'S AUTHORITY	
ITEM	LIMITS
Contracting Officer	X UNLIMITED WARRANT LIMIT: LIST _____ OTHER: <u>Use NOSC Assistance</u>
Funding	Major Claimant:
Evacuation	X UNLIMITED ON BASE LIMITED OFF BASE (Describe Limits)
Access to other DOD Components	X UNLIMITED UNLIMITED W/CONCURRENCE OF NOSC LIMITED W/CONCURRENCE OF NOSC (Describe Limits)
Coordination with Federal OSC	X UNLIMITED UNLIMITED W/CONCURRENCE OF NOSC LIMITED W/CONCURRENCE OF NOSC (Describe Limits)
Coordination with State Regulators	X UNLIMITED UNLIMITED W/CONCURRENCE OF NOSC LIMITED W/CONCURRENCE OF NOSC (Describe Limits)
Coordination with Press	X UNLIMITED UNLIMITED W/CONCURRENCE OF NOSC LIMITED W/CONCURRENCE OF NOSC (Describe Limits)
Manage all response efforts per Federal OSC Direction	X UNLIMITED UNLIMITED W/CONCURRENCE OF NOSC LIMITED W/CONCURRENCE OF NOSC (Describe Limits)

TABLE FRP 2.25: FACILITY QUALIFIED INDIVIDUAL'S AND ALTERNATE'S DUTIES
PRE-SPILL DUTIES
<ul style="list-style-type: none"> Develop a facility response plan to meet current regulations and to provide for adequate personnel and other resources necessary to respond to the average most probable facility spill.
<ul style="list-style-type: none"> Conduct sufficient number of drills to ensure that the response plan, personnel, and equipment is adequate and work as expected.
<ul style="list-style-type: none"> Review response plan at least annually to ensure that it remains up to date.
<ul style="list-style-type: none"> Ensure facility response personnel maintain mandatory training levels (OSHA, etc.)

TABLE FRP 2.25: FACILITY QUALIFIED INDIVIDUAL'S AND ALTERNATE'S DUTIES (Cont.)

SPILL RESPONSE DUTIES

- Obtain initial incident briefing from the IRT. Characterize spill to obtain spill notification data.
- Activate notification system to activate spill response management team
- Characterize the spill as to source, amount, and other items needed to make required notifications.
- Contact NOSC and provide spill brief. Request additional resources as needed. Ensure other appropriate notifications are made.
- Make incompatibility/interaction assessment and notify proper response personnel
- Assess the situation for possible direct and indirect health and safety hazards, environmental risks, and coordinate prompt rescue, response, removal, containment, diversion actions, and evacuation actions as outlined in the response plan.
- Ensure that personnel safety is accorded highest priority.
- Develop strategic objectives and response priorities
- Ensure that spill event and response efforts, costs, orders, contracted personnel, and equipment are properly documented.
- Approve Incident Action Plans, site specific Health and Safety Plans, and other plans as needed.
- Serve as primary contact with FOSC and state regulators.
- Attend unified command meetings with the FOSC and federal and state regulators.
- Manage overall response operations to ensure they are consistent with Navy policy, federal, state, and local regulations, and the needs of impacted areas.
- Review and approve resource allocation changes.
- Monitor response effort and adjust as necessary.
- Serve as primary spokesperson with news media.
- Review and approve press releases.
- Make requests through the NOSC for outside resources.
- Approve Demobilization Plan.

AFTER SPILL DUTIES

- Develop spill report to determine strengths and weaknesses of plan, response effort, etc.
- Amend plan based on lessons learned.

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TAB 2: EMERGENCY RESPONSE INFORMATION

TABLE FRP 2.5: FACILITY SPILL MANAGEMENT TEAM						
NAME	DAY PHONE (NEXTEL)	AFTER HOURS	RESPONSE TIME (Min)	RESPONSE JOB	TRAINING TYPE *	TRAINING DATE
Public Works Officer	(305) 293-2304 CELL: (305) 797-4355		15 - 30	Coordinate Equipment and Personnel	40-Hour Hazwoper, 8-Hour annual	July '02

TABLE 2.15: ONSITE INVENTORY: TOOLS AND SUPPLIES (STOCKPILED)				
STOCKPILED ITEM	NATIONAL STOCK NUMBER	STOCKPILE LOCATION	UNIT	STOCK ON HAND (units)
Shovel, Sq Nose (Long)	5120-00-293-3330	Public Works Hazardous Collection Locations (1)*	each	35
Shovel, Sq Nose (Short)	5120-00-224-9326		each	
Shovel, Rd Nose (Long)	5120-00-188-8450	Public Works Hazardous Collection Locations (1)*	each	5
Shovel, Rd Nose (Short)	5120-00-293-3336		each	
Mop Squeezer	7920-00-170-5449	Public Works Hazardous Collection Locations (1)*	each	30
Mop, Cotton	7920-00-224-8726	Public Works Hazardous Collection Locations (1)*	each	30
Squeegee			each	
Can, Garbage (30-gal)	7240-00-160-0440		each	
Rags	7920-00-223-1014	Public Works Building A-437	50 lb bale	3
Pail, Plastic (3-gal)	7240-00-246-1097	Public Works Hazardous Collection Locations (1)*	each	30
Pail, Plastic (5-gal)	7240-00-943-7105	Public Works Building A-437	each	12
Bags, Sand	8105-00-965-2509		bale	
		Public Works Building A-437		25
Gloves, Rubber	8415-00-935-2833	Fire Department Building A-132.	pair	70
Goggles, Plastic	8465-01-004-2893	Public Works Building A-437	pair	25
Bags, Plastic (large)	8105-01-183-9768	Public Works Building A-437	box	6
		Public Works Building A-437		25
Rubber Boots		Fire Department Building A-132.		70
POINT OF CONTACT: Environmental Coordinator DAY PHONE: (305) 293-2911 24-HOUR PHONE: (305) 797-4458				
COMMENTS: * indicates number stored at each location.				
Purchase of tools and supplies is on-going; stocks are replenished as needed, so year of purchase information is unavailable.				

TABLE FRP 2.17: ONSITE INVENTORY: COMMUNICATIONS EQUIPMENT (IN USE)

TYPE	ASSIGNED TO	CALL SIGN OR PHONE NUMBER
NEXTTEL	FIRE CHIEF	(305) 797-4401
	ASST FIRE CHIEF	(305) 797-4397
	XO	(305) 797-4349
	SECURITY MAINTENANCE	(305) 797-0988
	SAFETY	(305) 797-4412
	OIL SPILL CHIEF	(305) 797-4360
	ENVIRONMENTAL PROTECTION SPECIALIST #1	(305) 797-4455
	ENVIRONMENTAL PROTECTION SPECIALIST #3	(305) 797-4461
	HAZWASTE MANAGER	(305) 797-4454
	WATCH COMMANDER	(305) 797-4423
	PWO	(305) 797-4355

POINT OF CONTACT: Ground Electronics DAY PHONE: (305) 293-2258 24-HOUR PHONE: (305) 293-4316 (#070)

WARNING: ONLY "INTRINSICALLY SAFE" HANDHELD RADIOS AND RECHARGEABLE BATTERY PACKS SHOULD BE USED AT OIL SPILLS. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe". This inventory table functions both as an ONSITE Inventory and as part of the Communications Plan. "Intrinsically safe" Motorola handheld radios and battery packs are marked with a green dot on the back, at the junction of the radio body and its battery pack; if BOTH dots are not present, the radio is not "intrinsically safe."

TABLE FRP 2.20: ONSITE INVENTORY: MISCELLANEOUS CAPITAL EQUIPMENT

EQUIPMENT	HOW MANY	TYPE	BRAND AND MODEL	YEAR	STORAGE LOCATION	OP STATUS
BULLDOZERS	1	Dozer	John Deere 750b-LT	89	Motor Pool	Good
	1	TD 20	International	70	Motor Pool	Fair
BACKHOE	1	Backhoe	Case 385	87	Motor Pool	Good
	1	Backhoe	John Deere 310-D	91	Motor Pool	Good
MISC EARTH-MOVING	2	Front End Loader	Cat 950 F	94	Motor Pool	Good
	1	Earth Auger	Hwy. maint. Comp. HCBMS	88	Motor Pool	Fair
	1	Excavator	Bager Equip Comp 666	94	Motor Pool	Good
	2	Motor Grader	Kamatsu T500L Canadian 710A	74 96	Motor Pool	Fair
POINT OF CONTACT: Transportation Director DAY PHONE: (305) 293-2586						
COMMENTS: The Public Works Transportation Department is located in Building #A-438						

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
TRUMAN ANNEX											
38-R (conveyed to City)	AST for emergency generator for Pump House	steel/copper	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	250	250	Northwest/Toward Pump house	Double-walled tank
149-1R (out of service)	AST for Fueling Activities at Pier 8	steel/NA	NA/NA	1996	Level Gauge, Overfill Alarm, and Interstitial Gauge	EMPTY- Formerly contained	tank rupture	1,000	1,000	Northwest/Pavement towards ocean	Double-walled tank
290-ER	AST for emergency generator for JIATF	steel/steel	Aboveground/SW	1997	Interstitial Alarm	JP-5	tank rupture	6,000	6,000	West into parking lot	Double-walled tank
290-R	AST for emergency generator for JIATF	steel/steel	Aboveground/SW	2001	Interstitial Alarm	JP-5	tank rupture	6,000	6,000	Southwest into parking lot	Double-walled tank
290-A	AST for JIATF Day Tank	steel/steel	Aboveground/SW	2001	Interstitial Alarm	JP-5	tank rupture	150	150	West into parking lot	Double-walled tank
291	Internal Belly AST for emergency generator for JIATF	steel/steel	Aboveground/SW	1998	Interstitial Alarm	JP-5	tank rupture	4,000	4,000	North/Storm Drain Inlet	Double-walled tank
437-R (out of service)	AST for emergency generator for Barracks	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	Northeast/Across Courtyard	Double-walled tank
438-R (out of service)	AST for emergency generator for Barracks	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	Northeast/Across Courtyard	Double-walled tank
439-R	AST for emergency generator for Barracks	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	Northeast/Across Courtyard	Double-walled tank
1279-BR	AST for generator for CARIBROC	steel/steel	Aboveground/SW	1999	Level Gauges, Alarm, Interstitial Alarm	JP-5	tank rupture	6,000	6,000	East/Toward Building	Double-walled tank
1350-R	AST for emergency generator for Barracks	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	South	Double-walled tank
1351-R	AST for emergency generator for Barracks	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	North	Double-walled tank
1352	Internal AST for emergency generator for Barracks	steel/steel	Internal/SW	2002	Visual	JP-5	tank rupture	600	1,480	Northeast/Across Street	Concrete dike
4199 (New)	AST for New Water Tower	steel/steel	Aboveground/SW	2004	Interstitial gauge	JP-5	tank rupture	6,000	6,000	Northeast/Across Street	Double-walled tank
BOCA CHICA											
A-132	AST for emergency generator for Firehouse	steel/steel	Aboveground/SW	1961	None	JP-5	tank rupture	300	500	Localized, NO flow expected	Concrete Dike

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
A-229A	AST for emergency generator for Pump Station	steel/copper	Aboveground/SW	updated 1997	None	JP-5	tank rupture	200	700	Southwest	Concrete Dike
A-229B	AST for emergency generator for Pump Station	steel/copper	Aboveground/SW	updated 1997	None	JP-5	tank rupture	200	700	Southwest	Concrete Dike
A-230-R	AST for emergency generator for Electrical Station	steel/steel	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	2,000	2,000	South/Towards Flight Line	Double-walled tank
A-244-R (out of service)	AST for emergency generator for Air Operations	steel/steel	Aboveground/SW	1996	Interstitial gauge	JP-5	tank rupture	500	500	Towards Flight Line at storm drain inlet	Double-walled tank
A-322E	AST	steel/steel	Underground/DW	1999	High Level Alarms, Interstitial Gauge, Anti-Siphon Valve	Gasoline	tank rupture	10,000	10,000	South/Towards Flight Line	Double-walled tank
A-322F	AST	steel/steel	Underground/DW	1999	High Level Alarms, Interstitial Gauge, Anti-Siphon Valve	Gasoline	tank rupture	6,000	6,000	South/Towards Flight Line	Double-walled tank
A-322G	AST	steel/steel	Underground/DW	1999	High Level Alarms, Interstitial Gauge, Anti-Siphon Valve	Diesel	tank rupture	6,000	6,000	South/Towards Flight Line	Double-walled tank
A-325-R	AST for emergency generator for Administration	steel/steel	Aboveground/SW	2002	Interstitial Gauge	Diesel	tank rupture	1,000	1,000	North	Double-walled tank
A-419D	AST for Power Plant day tank	steel/steel	Aboveground/SW	1944	Interstitial Gauge, Leak Detector	JP-5	tank rupture	300	300	East	Double-walled tank
A-419E-1	AST for Power Plant	steel/steel	Aboveground/SW	1944	Interstitial Gauge, Leak Detector	JP-5	tank rupture	300	300	East	Double-walled tank
A-419F	AST for Power Plant	steel/steel	Aboveground/SW	1999	Interstitial gauge, anti-siphon valve, level gauge	JP-5	tank rupture	5,000	5,000	Localized, no flow expected	Double-walled tank
A-419G	AST for Power Plant	steel/steel	Aboveground/SW	1999	Interstitial gauge, anti-siphon valve, level gauge	JP-5	tank rupture	5,000	5,000	Localized, no flow expected	Double-walled tank
A-447	AST for emergency generator for Pump Station	steel/steel	Aboveground/SW	2002	Interstitial gauge	JP-5	tank rupture	500	500	Localized, no flow expected	Double-walled tank
A-526-A (out of service)	AST for emergency generator for Galley	steel/steel	Aboveground/SW	1996	Interstitial gauge	JP-5	tank rupture	500	500	East	Double-walled tank
A-638-R	AST for emergency generator for CBO	steel/steel	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	1,000	1,000	South	Double-walled tank
A-639-R	AST for emergency generator for CBO	steel/steel	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	1,000	1,000	East	Double-walled tank
A-648-R	AST for emergency generator for CBO	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	Localized, no flow expected	Double-walled tank

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
A-649-R	AST for emergency generator for CBO	steel/steel	Aboveground/SW	1997	Interstitial gauge	JP-5	tank rupture	500	500	Localized, no flow expected	Double-walled tank
A-727-R	AST for emergency generator for CBO	steel/steel	Aboveground/SW	1998	Interstitial gauge	JP-5	tank rupture	500	500	North	Double-walled tank
A-902-BR	AST for Truck Fill Stand	steel/NA	NA/NA	1997	Interstitial Gauge	Used JP-5	tank rupture	500	500	East/Toward Storm Drain	Double-walled tank
A-924-R	AST for Tank Farm	steel/steel	Aboveground/SW	1996	Interstitial Gauge	Used JP-5	tank rupture	10,000	10,000	South	Double-walled tank
A-925-R	AST for Tank Farm	steel/steel	Aboveground/SW	1996	Interstitial Gauge	Used Oil	tank rupture	10,000	10,000	South	Double-walled tank
A-929-B	AST for Tank Farm	steel/steel	Aboveground/SW	1998	Interstitial Gauge	Used JP-5	tank rupture	500	500	Localized, no flow expected	Double-walled tank
A-935-R	AST for Truck Fill Stand	steel/steel	Aboveground/SW	1997	Interstitial Gauge	Used JP-5	tank rupture	250	250	West to Mangrove Waterway	Double-walled tank
A-938	AST for Tank Farm	steel/steel	Above and Belowground/SW	1953 upgraded 1999	High Level Alarm, Groundwater Monitoring	JP-5	tank rupture	239,000	>239,000	Localized, no flow expected	Earthen Containment Berm
A-940-3 renamed (4162-3)	AST for Emergency Generator for Pump Station	steel/steel	Aboveground/SW	1995	None	JP-5	tank rupture	300	710	South	Concrete Dike
A-937 (out of service)	AST for Emergency Generator for Pump Station	steel/steel	Aboveground/SW	1995	None	JP-5	tank rupture	500	710	South	Concrete Dike
A-940-4 renamed (4162-4)	AST for Emergency Generator for Pump Station	steel/steel	Aboveground/SW	1995	None	JP-5	tank rupture	300	710	South	Concrete Dike
A-940-5 renamed (4162-5)	AST for Emergency Generator for Pump Station	steel/steel	Aboveground/SW	1995	None	JP-5	tank rupture	300	710	South	Concrete Dike
A-944	AST for Tank Farm	steel/steel	Above and Belowground/SW	1953 upgraded	High Level Alarm, groundwater monitoring	JP-5	tank rupture	238,000	>238,000	Localized, no flow expected	Earthen Containment Berm
A-945	AST for Tank Farm	steel/steel	Above and Belowground/SW	1957 upgraded	High Level Alarm, groundwater monitoring	JP-5	tank rupture	213,000	>213,000	Localized, no flow expected	Earthen Containment Berm
A-958	AST for Tank Farm	steel/steel	Above and Belowground/SW	1953 upgraded	High Level Alarm, groundwater monitoring	JP-5	tank rupture	298,000	>298,000	Localized, no flow expected	Earthen Containment Berm
A-1004	AST for emergency generator for Message Center	steel/steel	Aboveground/SW	1987	None	JP-5	tank rupture	2,000	>2,000	West	Concrete / Metal Pan

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
A-1004- A and B	AST for emergency generator for Message Center – 2 internal Day Tanks	steel/steel	Aboveground/SW	1987	None	JP-5	tank rupture	50 each	>50	West	Concrete / Metal Pan
A-1006-R	AST for emergency generator for Transmitter Site	steel/steel	Aboveground/SW	1994	Interstitial gauge	JP-5	tank rupture	250	250	West/Roadway	Double-walled tank
A-1019 Removed 2007	AST for emergency generator for Message Center	Steel/flexible rubber tube	Aboveground/SW	1995	none	JP-5	tank rupture	25	66	East	Plastic basin
A-4010	AST for emergency generator for Tank Farm Building	steel/steel	Aboveground/SW	1953	None	JP-5	tank rupture	185	1,100	Localized, no flow expected	Concrete Dike
A-4053R	AST for emergency generator for Radar Site	steel/steel	Aboveground/SW	2003	Interstitial Monitoring, spill containment bucket, fill gauge	JP-5	tank rupture	500	500	West	Double-walled tank
A-4054	AST for emergency generator for PAR Site	steel/steel	Aboveground/SW	1998	Interstitial gauge	JP-5	tank rupture	500	500	East	Double-walled tank
A-4082	AST for emergency generator for TACTS	steel/steel	Aboveground/SW	1994	Interstitial gauge	JP-5	tank rupture	500	500	North	Double-walled tank
A-4085-R	AST for emergency generator Airfield Operations	steel/steel	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	1,500	1,500	South, Towards Flight line	Double-walled tank
A-4165-R	AST for emergency generator Air Start	steel/steel	Aboveground/SW	1998	Interstitial gauge	JP-5	tank rupture	500	500	South	Double-walled tank
A-4173	AST for emergency generator for FAA	steel/steel	Aboveground/SW	1998	Interstitial gauge, High Level Alarms, and Remote Monitoring	JP-5	tank rupture	2,000	2,000	Localized, no flow expected	Double-walled tank
A-4174	AST for emergency generator for Waste Water Treatment Plant	steel/steel	Aboveground/SW	2000	Interstitial Monitoring	JP-5	tank rupture	500	500	Northwest, Into Mangrove and Gulf 25'	Double-walled tank
NOAA-1A and 1B	2 ASTs for NOAA Engine Generator Building	steel/steel	Aboveground/SW	1996	None	Diesel	tank rupture	225 each	1,122	Northwest, Toward Gulf of Mexico	Concrete Diked Room
NOAA-1	AST for generator at Boca Chica Hawk Missile Site	steel/steel	Aboveground/SW	2000	Interstitial Monitoring	Diesel	tank rupture	1,000	1,000	Northwest, Toward Gulf of Mexico	Double-walled tank
AG-103-A through AG 840-A	ASTs for Boca Chica Runway Arresting Gear	steel/rubber tubing	Aboveground/SW	1998	None	Gasoline	tank rupture	None	12 each	Localized, no flow expected	None

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
TRMUBO POINT											
B-27 (Out of Service)	AST for emergency generator for Pier D 1	steel/steel	NA	1975	None	Formerly contained JP-5	tank rupture	150	NA	NA	Aluminum pan
B-28A (Out of Service)	AST for Pier D-1	steel/steel	NA	1975	None	Formerly contained JP-5	tank rupture	150	NA	NA	Aluminum pan
C-1	AST for emergency generator for Port Operations	steel/NA	None	2001	Interstitial Gauge	Gasoline	tank rupture	1,000	1,000	North, Toward Ocean	Double-walled tank
C-5	AST for emergency generator at Fire Station	steel/steel	Aboveground/SW	2002	None	JP-5	tank rupture	120	120	Southwest, along street into storm drain	Double-walled tank
C-83	AST for emergency generator for Water Reservoir	steel/copper	Aboveground/SW	1944	None	JP-5	tank rupture	275	1,122	North and South, relatively flat area	Concrete Dike
C-2076	AST for emergency generator at BOO	steel/steel	Aboveground/SW	1999	Interstitial Gauge	JP-5	tank rupture	1,000	1,000	Southwest, Towards storm drain	Double-walled tank
D-29R	AST for emergency generator for Fuel arm	steel/steel	Aboveground/SW	1998	Interstitial Monitoring	JP-5	tank rupture	500	500	Bermed around area, spill would pool	Double-walled tank
D-1292-BR (Out of Service)	AST next to Key West Pipeline Office	steel/steel	Aboveground/SW Belowground/DW (both are capped and plugged)	1991	High Level Alarm	EMPTY- Formerly contained Gasoline	tank rupture	20,000	22,000	North, toward gulf	Concrete Dike
SIGSBEE PARK											
V-1274	AST for emergency generator at Water Tower	steel/steel	Aboveground/SW	1998	Interstitial Monitoring	JP-5	tank rupture	500	500	West	Double-walled tank
V-1552-BR	AST for emergency generator	steel/steel	Aboveground/SW	1995	Interstitial Monitoring	JP-5	tank rupture	500	500	South	Double-walled tank
V-4186	AST at Marina (Building V 3005)	steel/steel	Underground/DW	1999	Interstitial Monitoring	Gasoline	tank rupture	5,000	5,000	East	Double-walled tank
V-4111-AR	AST for emergency generator Commissary	steel/steel	Aboveground/SW	1998	Interstitial Gauge	JP-5	tank rupture	500	500	Southeast, to Storm Drain Trench	Double-walled tank
V-4022-H	Building 800	steel/steel	Belowground/DW	1999	Interstitial Monitoring	Gasoline	tank rupture	10,000	10,000	Groundwater	Double-walled tank

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
V-4022-I	Building 800	steel/steel	Belowground/DW	1999	Interstitial Monitoring	Gasoline	tank rupture	6,000	6,000	Groundwater	Double-walled tank
V-4022-J	Building 800	steel/steel	Belowground/DW	1999	Interstitial Monitoring	Diesel	tank rupture	6,000	6,000	Groundwater	Double-walled tank
V-4111-B	Secondary Containment AST for Commissary Generator	concrete/fiberglass	Belowground/SW	UK	None	JP-5	tank rupture	200	NA	Southeast, To storm drain trench	This is a secondary containment tank in place to contain releases from the Commissary generator and is empty
V-4111-C	AST for emergency generator at Commissary	steel/steel	Aboveground/SW	UK	None	JP-5	tank rupture	25	None	Southeast, To Storm Drain Trench	None
V-4114-R	AST for generator at Navy Lodge	steel/steel	Aboveground/SW	1998	Interstitial Monitoring	JP-5	tank rupture	500	500	Northeast	Double-walled tank
SADDLEBUNCH KEY											
J-1561-A	AST Day Tank at Radio Transmitter	steel/steel	SW	2000	Leak Detection Alarm	JP-5	tank rupture	200	Inside Building	Inside Building	Building is Secondary Containment
J-1563-R	AST at Radio Transmitter	steel/steel	Aboveground/DW	1994	Overfill alarm	JP-5	tank rupture	10,000	10,000	Northwest, Toward the gulf	Concrete Dike
FLEMING KEY											
F-01	AST at Special Forces	steel/steel	Belowground/DW	1994	None	Diesel	tank rupture	2,650	> 2,650	Northwest, toward Building	Concrete Dike
F-01B	Day Tank generator for Building KW-200	steel/rubber hose	Aboveground/SW	1993	None	Diesel	tank rupture	50	> 50	West, Into paved drive	Floor Drain to OWS
F-01C	Day Tank generator for Building KW-200	steel/rubber hose	Aboveground/SW	1993	None	Diesel	tank rupture	50	> 50	West, Into paved drive	Floor Drain to OWS
F-01D	Day Tank generator for Building KW-200	steel/rubber hose	Aboveground/SW	1994	None	Diesel	tank rupture	25	> 25	West, Into paved drive	Floor Drain to OWS
F-02	AST	steel/steel	Aboveground/SW	1995	Interstitial Monitoring	Gasoline	tank rupture	4,000	4,000	Northeast to Golf of Mexico	Double-walled tank
NAVY MEDICAL CENTER											
L-47	AST for generator at Naval Regional Medical Center	steel/steel	Aboveground/SW	1999	Interstitial gauge	JP-5	tank rupture	500	500	SW, Into parking lot	Double-walled tank

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
OWS-A-318	PWD vehicle wash rack	Steel and concrete/steel or PVC	NA	Unknown	None	Oils and Grit	Overfilling	2,000	2,000	No discharge, pumped out by tank truck	Self-contained
OWS-A-443	PWD heavy equipment	Steel and concrete/steel or PVC	NA	Unknown	None	Oils and Grit	Overfilling	500	500	To sanitary sewer	To sanitary sewer
OWS-A-981	Aircraft wash rack	Steel and concrete/steel or PVC	NA	Unknown	None	Oils and Grit	Overfilling	1,000	1,000	From sump to sanitary sewer	To sanitary sewer
OWS-A-986	AIMD/GSE	Steel and concrete/steel or PVC	NA	Unknown	None	Oils and Grit	Overfilling	500	500	To sanitary sewer	To sanitary sewer
NA	Truck fill stand (Containment area for mobile tank/truck parking)	Concrete/concrete	NA	2000	None	Oils and Grit	Overfilling	1,500	1,500	To Storm Water	Drain valve for the discharge from the oil-water separator is kept closed until after visual inspection
Variable numbers of mobile tanks and trucks	Truck fill stand (Containment area for mobile tank/truck parking)	Steel and Plastic/NA	NA	NA	None	JP5	Leak/Tank Rupture	3,000	3,000	To Storm Water	1500 gallon Oil-water separator and large curbed parking area to contain spills
NA	Drums at Small Engine Repair (Building A-329)	Steel	NA	NA	NA	Used oil, motor oil/1-2	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Drums at Auto Hobby Shop (Building A-730)	Steel	NA	NA	NA	Used oil/1-2	Drum rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Drums at Vehicle Washrack (Building A-4185)	Steel	NA	NA	NA	Used oil/1-2	Drum rupture	55	55		All drums located on secondary containment pallets

SPCC Table #3-1 Revision

Tank Number	Container Type or Purpose	Tank Material / Pipe Material	Piping/Piping Containment	Year Installed	Good Engineering Practice	Contents	Type of Failure	Capacity/ Release Volume (gal)	Containment Capacity (gal)	Flow Direction/Receiver	Containment/Diversion Structure
NA	Drums at OPS-OMD Building A – 331	Steel	NA	NA	NA	New Oil/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Drums at VF-101 Building A – 981	Steel	NA	NA	NA	New Oil and Used Oil/2	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Drums at AIMD HQ Building A-980	Steel	NA	NA	NA	New Oil and Used Oil/2	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Drums at PWD Oil Spill Response at C-1	Steel	NA	NA	NA	New Oil/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
2 Drums	Drums at	Steel	NA	NA	NA	New Oil and Used Oil/55	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Galley at Boca Chica	Grease drum	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	The Navigator's Bar and Grill (Marina at Boca Chica)	Grease trap to sanitary sewer	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Sunset Bar and Grill (Marina at Sigsbee Park)	Grease trap to sanitary sewer	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Bowling Alley at Boca Chica	Grease drum	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Special Forces Center (Fleming Key)	Grease trap to sanitary sewer	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets
NA	Coast Guard Galley at Trumbo Point	Grease drum	NA	NA	NA	Grease/1	Drum Rupture	55	55	Inside building	All drums located on secondary containment pallets

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TABLE FRP 3.2: UNDERGROUND OIL STORAGE TANKS							
TANK NO.	OIL/HAZARDOUS SUBSTANCE STORED	OPERATIONAL MAXIMUM CAPACITY (gal)	DAILY AVERAGE STORED (gal)	TANK TYPE	TANK MATERIAL	INSTALLATION (YEAR)	FAILURE CAUSE AND DATE (If applicable)
V4022-H	Gasoline	10,000	NA	Vaulted	Steel	1998	
V4022-I	Diesel	6,000	NA	Vaulted	Steel	1998	
V4022-J	Gasoline	6,000	NA	Vaulted	Steel	1998	
TOTAL MAXIMUM UNDERGROUND OIL STORAGE CAPACITY (gal)						22,00 Gallons	
Key to Tank Type Column DW — Double Walled OP — Overfill Protection							

TABLE FRP 3.3: SURFACE IMPOUNDMENTS (SI)						
SI NO.	SUBSTANCE STORED	OPERATIONAL MAXIMUM CAPACITY (gal)	DAILY AVERAGE STORED (gal)	SURFACE AREA (ft ²)	INSTALLATION (YEAR)	FAILURE CAUSE AND DATE (If applicable)
None						
TOTAL SI MAXIMUM OIL STORAGE CAPACITY (gal)						None

TABLE FRP 3.4: OIL OR HAZARDOUS SUBSTANCE TRANSFER FACILITIES PRESENTING SPILL RISKS			
LOADING/UNLOADING OPERATION		DESCRIPTION	TYPICAL TRANSFER VOLUME(gal)
TANK TRUCK	LOADING	Leaks from piping, fittings, valves, hoses, transfer connections, and other equipment, to include the tank truck. Operator errors and equipment malfunctions that cause overfills during loading operations. Structural and equipment component failures caused by collision with mobile equipment; catastrophic ruptures and failures of valves, hoses, piping, and tank truck seams and rivets, loading arms, etc.	0 - 8,000
	UNLOADING	(See Above)	(See Above)
RAIL CAR	LOADING	Not Applicable	Not Applicable
	UNLOADING	Not Applicable	Not Applicable
VESSEL	LOADING	Leaks from truck piping, fittings, valves, flanges, and pumps; hose ruptures or vessel fuel system. Catastrophic ruptures and failures of truck piping, valves, flanges and other equipment.	0 - 8,000 Maximum: 3,000 gal/hour

TABLE FRP 3.5: OIL AND HAZARDOUS SUBSTANCES DAY-TO-DAY OPERATIONS PRESENTING SPILL RISKS		
DAY-TO-DAY OPERATIONS	DESCRIPTION	TYPICAL VOLUME (gal)
SCHEDULED VENTING	No methods established.	Not Applicable
PIPE REPAIR	Equipment failures due to faulty installation or repairs, e.g., installing bolts improperly, installing components with incorrect specifications and installing improperly selected gaskets. Failure to completely or adequately isolate and evacuate oil in section or component before repairs.	0 - 550
VALVE REPAIR	Leaks from valve stems due to improperly adjusted valve packings and failures of valve body parts due to improperly joining to piping. Improper adjustment of pressure relief valves. Failure to completely or adequately isolate and evacuate oil before repairing valve.	0 - 25
TANK-TO-TANK TRANSFERS	Overfills due to valve misalignments and/or tank gauging errors.	Not Applicable
TANK TRUCK DELIVERIES	Leaks from piping, fittings, valves hoses, transfer connections, and other equipment, to include that tank truck. Operator errors and equipment malfunctions that cause overfills during loading operations.	0 - 8,000
DRAINING SECONDARY CONTAINMENT	Inadequate inspection of impounded dike water before draining dike. Not fully closing dike drainage valve after opening.	0 - 50,000

TABLE FRP 3.6: EFFECTS OF CHANGES IN OIL AND HAZARDOUS SUBSTANCES THROUGHPUT ON POTENTIAL SPILL VOLUMES		
TYPE THROUGHPUT	NORMAL DAILY THROUGHPUT (gal)	HOW SPILL VOLUME COULD BE AFFECTED BY CHANGE IN THROUGHPUT
TRANSFER TO/FROM TANK TRUCKS	73,740	An increase or decrease in throughput will not change the potential spill volume at the tank truck transfer facility unless the facility begins to service tank trucks with capacities greater than 8,000 gallons or adds additional fuel loading capabilities.
TRANSFER TO/FROM RAILCARS	Not Applicable	Not Applicable
TRANSFER FROM PIPELINES	Not Applicable	Not Applicable
TRANSFER TO VESSELS	Maximum: 3,000 Gallons per Hour	Throughput changes will not change the potential spill volume since it depends on the pumping rate and the time for detecting and mitigating the spill.

3.1 VULNERABILITY ANALYSIS

3.1.1 OIL SPILL RESPONSE PLANNING DISTANCES AND SENSITIVE AREA IDENTIFICATION

FRP Appendix C contains the derivation of the response planning distances. Table FRP 3.7 summarizes the FRP response planning distances. Table FRP 3.10 contains the prioritized list of fish and wildlife and sensitive environments and economically sensitive areas within the FRP response planning distances. These areas and the priorities for protection are in accordance with the ACP.

TABLE FRP 3.7: FACILITY OIL SPILL RESPONSE PLANNING DISTANCE			
OIL TYPE	ID OF NAVIGABLE WATER AND TYPE WATER	CONDITION/TIDE CYCLE	DISTANCE IN MILES FROM FACILITY
I	Atlantic Ocean — Near Shore	Tidal – Ebb	0 - 5
I	Gulf of Mexico — Near Shore	Tidal – Ebb	0 - 5

The following table provides an analysis of potential effects of an oil spill from this facility. A discussion of the particular vulnerability is provided when appropriate. Each vulnerability is ranked with a level of potential impact: high, medium, low.

TABLE FRP 3.8: VULNERABILITIES OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS, WATER INTAKES, AND OTHER AREAS		
FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS, WATER INTAKES, AND OTHER AREAS	VULNERABILITY (HIGH, MEDIUM, LOW)	DISCUSSION
Water intakes (drinking, cooling, or other)	HIGH	Water intakes are a high sensitivity, because contamination of a water system can lead to serious human health issues and effects. Once contaminated, returning it to an acceptable level is time-intensive and costly.
Schools	HIGH	Potential impact by secondary effects from a spill such as fire/explosion, evaporation of aromatic compounds, smoke plume from fire/explosion, and interruption from response traffic and activity.
Medical facilities	HIGH	Potential impact by secondary effects from a spill such as fire/explosion, evaporation of aromatic compounds, smoke plume from fire/explosion, interruption from response traffic and activity. Possible overload from spill-related injuries.
Residential areas	HIGH	Potential impact from secondary effects from a spill such as fire/explosion, evaporation of aromatic compounds, smoke plume from fire/explosion, and interruption from response traffic and activity.
Businesses	HIGH	Potential impact from secondary effects from a spill such as fire/explosion, evaporation of aromatic compounds, smoke plume from fire/explosion, and interruption from response traffic and activity. Loss of business opportunity.
Wetlands and or other sensitive environments	HIGH	Wetlands are highly sensitive to oil spills. The biological diversity is significant and critical habitat is provided for many types of animals and plants. It is extremely difficult/impossible to effectively remove oil from sensitive areas such as wetlands. Once oil does impact a sensitive area, the area is at risk to acute and chronic toxicity effects, damage to area through cleanup efforts, and enhanced media/public interest. Recovery/rehabilitation is a slow process.
Fish and wildlife	HIGH	See specific fish and wildlife tables. (TABLES FRP 3.12 - 3.16)

TABLE FRP 3.8: VULNERABILITIES OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS, WATER INTAKES, AND OTHER AREAS (CONT.)		
FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS, WATER INTAKES AND OTHER AREAS	VULNERABILITY (HIGH, MEDIUM, LOW)	DISCUSSION
Lakes and streams	HIGH	Lakes and streams provide a means for rapid transport of contamination to several different habitats, fish and wildlife, drinking water, and water quality and composition. Lakes have an added problem in that they are a low energy level environment that will cause oil to persist for a longer period of time. Streams make recovery of oil difficult because of increased current speed.
Endangered flora and fauna	HIGH	NAS Key West provides habitat for two endangered mammalian species, the silver Rice Rat and the Lower Keys Marsh Rabbit. Special consideration must be given when formulating strategies to clean up spilled oil in the area of these habitats. Refer to ERAP map #16 for habitat areas.
Recreational areas	LOW	Habitat degradation, visual impact and loss of use are some of the potential effects. Recreational areas are usually highly visible/popular to the public, which makes cleanup and restoration more complex. Loss of use can lead to a significant amount of money for an NRDA.
Transportation routes (air, land, water)	HIGH	Safety issues are imminent and the proper authorities must be adequately informed and updated to re-route air, water, and land traffic.
Utilities	MEDIUM	Presents a serious fire hazard if oil impact utilities. Other impacts include loss of service to the public.
Other areas of economic importance (e.g., beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats.	HIGH	

3.1.2 IDENTIFICATION OF VULNERABLE AREAS AND RISK OF IMPACT

This section has been prepared to coordinate with COTP Miami Area Contingency Plan. The booming strategies and collection points are to be used as a first response decision making tool. The priorities were established for the areas according to the Environmental Sensitivity Index (ESI) maps, field surveys and shoreline prioritization standards adopted by the US scientific community. See "Protection Priority Criteria," below, Table FRP 3.9.)

TABLE FRP 3.9: ACP PROTECTION PRIORITY CRITERIA		
The following are protection priority criteria on which the ACP priority for protection decisions are based:		
High (A)	Medium, (B)	Low (C)
<ul style="list-style-type: none"> • Protection of public health • Storm drain outlets • Public drinking water intakes • Safety and health of response workers • Industrial water supplies potentially impacting public needs and/or safety • Endangered or Threatened species and their habitats • National Estuarine Research Reserves • National Wilderness Areas • National Wilderness Refuges • State Wildlife Refuges and game management areas • Local or private wildlife refuge areas • Seasonal breeding, spawning, and nesting areas • Salt marshes • Freshwater marshes • Brackish marshes 	<ul style="list-style-type: none"> • National Parks, Monuments, and Seashores • State and County Parks • National Historic Register Sites • Commercial and recreational fisheries management areas • Sheltered rocky shores and seawalls • Exposed tidal flats • Gravel beaches and riprap • All other beaches • Other undeveloped land • Public parks, recreation areas, and facilities • Private recreation areas and facilities 	<ul style="list-style-type: none"> • Industrial water supply not potentially impacting public needs in and/or safety • Other tourist/recreation areas • Exposed vertical rocky shores and seawalls • Agricultural land • Other developed land • Industrial facilities

3.1.3 RESOURCES AT RISK

TABLE FRP 3.10: LIST OF SENSITIVE AREAS AND AREAS OF ECONOMIC IMPORTANCE WITHIN THE FRP PLANNING DISTANCE		
PROTECTION HIGH PRIORITIES (A):	ERAP-MAP	ACP-MAP
Saddlebunch Harbor	3	36
Boca Chica Channel	4	38
Cow Key Channel	4	38 (A145)
Great White Heron National	5	40 (A152)

TABLE FRP 3.10: LIST OF SENSITIVE AREAS AND AREAS OF ECONOMIC IMPORTANCE WITHIN THE FRP PLANNING DISTANCE		
PROTECTION HIGH PRIORITIES (A):	ERAP-MAP	ACP-MAP
Wildlife Refuge		
Key West National Wildlife Refuge	6	40 (A161)
Johnston Key Channel	2	35
Sawyer Keys	2	35
Bow Channel and Cudjoe Gardens	2	35
Sugarloaf Creek	3	36
Sugarloaf Key Cut	3	36
Sambos — Eastern and Middle	3	36
Pelican Shoal	3	36
American Shoal	3	36
Western Sambo	4	38
Cottrel Key	5	39
Eastern Dry Rocks	6	40
Rock Key	6	40
Sand Key	6	40
MEDIUM PRIORITIES (B):		
Garrison's Bight	4	38 (B160)
Smathers Beach	5	39 (B160)
Mallory Square	5	39 (B158)
Lands End Marina	5	39 (B159)
LOW PRIORITIES (C):		
Boca Chica Naval Air Station	4	38
Stock Island Power Plant	4	38
Sigsbee Park	4	38
Navy Fuel Farm	4	38

3.1.4 FISH AND WILDLIFE OIL VULNERABILITIES

The following tables, TABLES FRP 3.11 to 3.15, depict fish and wildlife resources within the FRP planning distance. The tables show by season, fish and wildlife vulnerabilities.

TABLE FRP 3.11: BIRDS					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
RAPTORS					
Vulnerability to Oil: Ingestion of contaminated food and oiling of eggs and young are the primary oil spill impacts.					
Broad-Winged Hawk (<i>Buteo platypterus platypterus</i>)					
Peregrine Falcon (<i>Falco peregrinus</i>)					Endangered
White Crown Pigeon					Threatened
American Kestrel (<i>Falco sparverius</i>)					
Turkey Vulture (<i>Cathartes aura</i>)					
Bald Eagle (<i>Haliaeetus leucocephalus</i>)					Endangered. Breeds in area.
Osprey (<i>Pandion haliaeetus</i>)					Breeds in the area.
SEABIRDS					
Vulnerability to Oil: Ingestion of contaminated food and oiling of eggs and young are the primary oil spill impacts.					
Laughing Gull (<i>Larus atricilla</i>)					Breeds in the area.
Ring-Billed Gull (<i>Larus delawarensis</i>)					
Royal Tern (<i>Sterna maxima</i>)					
Sandwich Tern (<i>Sterna sandvicensis</i>)					
Least Tern (<i>Sterna albifrons</i>)					
Black Skimmer (<i>Rynchops niger</i>)					
SHOREBIRDS					
Vulnerability to Oil: This is a large, complex group of birds. They feed mostly at low tide along tidal flats and beaches fronting marshes and sheltered areas. Moderately sensitive to direct oil spill impacts — they generally avoid oiled areas as long as other clean areas are available.					
Black-Bellied Plover (<i>Pluvialis squatarola</i>)					Breeds in area
Wilson's Plover (<i>Charadrius wilsonia</i>)					

TABLE FRP 3.11: BIRDS					
SPECIES	SEASON				GENERAL
	SP	S	F	W	

SHOREBIRDS (cont)

Sanderling (<i>Calidris alba</i>)					
Western Sandpiper (<i>Calidris mauri</i>)					
Least Sandpiper (<i>Calidris minutilla</i>)					
Clapper Rail (<i>Rallus longirostris</i>)					Breeds in the area.
Least Tern (<i>Sterna Antillarum</i>)					Threatened
Roseate Tern (<i>Sterna dougallii dougallii</i>)					Threatened
Killdeer (<i>Charadrius vociferus</i>)					Breeds in the area

DIVING BIRDS

Vulnerability to Oil: Highly susceptible to oil spills because they dive from the air for food.

Brown Pelican (<i>Pelecanus occidentalis</i>)					
Magnificent Frigatebird (<i>Fregata magnificens</i>)					
Double-Crested Cormorant (<i>Phalacrocorax auritus</i>)					Breeds in the area.
Anhinga (<i>Anhinga anhinga leucogaster</i>)					

WADING BIRDS

Vulnerability to Oil: These birds have long legs and feed on fish by wading in shallow water. They normally are not seen in large numbers except in localized areas for roosting and/or foraging. Low sensitivity to oil. Appear to avoid oil and are seldom directly contaminated. Loss of food or contaminated food can lead to serious impacts for wading birds.

Wood Stork (<i>Mycteria americana</i>)					
Great Blue Heron (<i>Ardea herodias</i>)					Breeds in area
Green Heron (<i>Butorides virescens virescens</i>)					Breeds in area
Great Egret					Breeds in area

TABLE FRP 3.11: BIRDS					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
(Egretta alba)					
Snowy Egret (Egretta thula)					Breeds in area

WADING BIRDS (cont)					
Reddish Egret (Egretta rufescens)					Breeds in area.
White Ibis (Gaura alba)					Breeds in area.
WATERFOWL					
Vulnerability to Oil: These birds dive for food and spend much of the time on the open-water surface making them highly susceptible to oil spills, even small slicks.					
Ring-Necked duck (Arthya collaris)					
Blue-Winged Teal (Anas discors)					
Red-Breasted Merganser (Mergus serrator)					

TABLE FRP 3.12: MAMMALS AND REPTILES					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
MAMMALS					
Vulnerability to Oil: Oil will cause irritation of the mucous membranes upon prolonged exposure. They will attempt to avoid spill areas. All three animals are found within the planning distance for a worst case discharge. NAS Key West encompasses Rice Rat and Marsh Rabbit habitat.					
Silver Rice Rat (Oryzomys palustris natator)					Endangered.
Key Largo Woodrat (Neotoma floridana smalli)					Endangered
Key Largo Cotton Mouse (Peromyscus gossypinus allapaticola)					Endangered
Lower Keys Marsh Rabbit (Sylvilagus palustris hefneri)					Endangered.
West Indian Manatee (Tichechus manatus)					Endangered.

TABLE FRP 3.12: MAMMALS AND REPTILES					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
REPTILES					
Vulnerability to Oil: Located throughout the planning area in backwaters and marsh areas, impacts will depend on the type and amount spilled. Sea turtles are highly susceptible to oiling during nesting season (late April through early September). Egg contamination is likely via mucous membrane irritation. The removal of nests from affected areas may become necessary.					
Atlantic Loggerhead Turtle (<i>Caretta Caretta</i>)					Endangered.
Kemp's (Atlantic) Ridley Sea Turtle (<i>Lepidochelys kempii</i>)					Endangered.

REPTILES (cont)					
Hawksbill Turtle (<i>Eretmochelys imbricata</i>)					Endangered.
East Indigo Snake (<i>Drymarchon Corais Couperi</i>)					Threatened
Green Sea Turtle (<i>Chelonia myolas</i>)					Endangered.
Key Ringneck Snake (<i>Diadophis punctatus arricus</i>)					Threatened
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)					Endangered.
Lower Keys Brown Snake (<i>Storeria dekayi victa</i>)					Threatened
Florida Snapping Turtle (<i>Chelydra serpentina osceola</i>)					Endangered.
Rim Rock Crown Snake (<i>Tantilla colitica</i>)					Threatened
Striped Mud Turtle (<i>Kinosternon bauri</i>)					Endangered.
Lower Keys Ribbon Snake (<i>Thamnophis sauritus sackenii</i>)					Threatened
Florida Mud Turtle (<i>Kinosternon subrubrum steindachneri</i>)					Endangered.
Loggerhead Musk Turtle (<i>Sternotherus minor</i>)					Endangered.
Spotted Turtle (<i>Clemmys guttata</i>)					
Florida Chicken Turtle (<i>Deirochelys reticularia chrysea</i>)					
Gopher Tortoise (<i>Gopherus polyphemus</i>)					
Florida Softshell (<i>Trionys ferox</i>)					
American Alligator					Federally threatened species.

TABLE FRP 3.12: MAMMALS AND REPTILES					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
(Alligator mississippiensis)					

TABLE FRP 3.13: FINFISH

SPECIES	SEASON				GENERAL
	SP	S	F	W	
Vulnerability to Oil:					
Bluefish (<i>Pomatomus saltatrix</i>)					
Hardhead Catfish (<i>Arius felis</i>)					
Dolphin (<i>Coryphaena equisetis</i>)					
Black Grouper (<i>Mycteroperca bonaci</i>)					
Yellowfish Grouper (<i>Mycteroperca venenosa</i>)					
King Mackerel (<i>Scomberomorus cavalla</i>)					
Blue Marlin (<i>Makaira nigricans</i>)					
Redeye Mullet (<i>Mugil gaimardianus</i>)					
Smalltooth Sawfish (<i>Pristis pectinata</i>)					Endangered
Florida Pompano (<i>Trachinotus carolinus</i>)					
Red Snapper (<i>Lutjanus campechanus</i>)					
Swordfish (<i>Xiphias gladius</i>)					
Bluefin Tuna (<i>Thunnus thynnus</i>)					
Yellowfish Tuna (<i>Thunnus albacares</i>)					
Gulf Surgeonfish (<i>Acanthurus randalli</i>)					
Gulf Flounder (<i>Paralichthys albigutta</i>)					

TABLE FRP 3.13: FINFISH					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
Fourwing Flyingfish (Hirundichthys affinis)					
Great Barracuda (Sphyrna barracuda)					
Smooth Hammerhead (Sphyrna zygaena)					
Tiger Shark (Galeocerdo cuvieri)					
Sharpnose Puffer (Canthigaster rostrata)					
Yellow Stingray (Urolophus jamaicensis)					
Sheepshead (Archosargus probatocephalus)					
Queen Angelfish (Holacanthus ciliaris)					
Goldentail Moray (Muraena miliaris)					

TABLE FRP 3.14: SHELLFISH AND CRUSTACEANS					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
SHELLFISH					
Vulnerability to Oil: Shellfish are extremely sensitive to oil spills since they are sessile and cannot escape. Intertidal bivalves would be covered by slick due to tidal action, while the water soluble fraction of oil would affect all bivalves.					
Hard Clam (Mercenaria mercenaria)					
American Oyster (Crassostrea virginica)					
CRUSTACEANS					
Vulnerability to Oil: Crustaceans are sensitive to oil and chemical spills. Although unaffected by surface slicks, they would be impacted by the water soluble fraction. Marsh areas are important nursery areas and have high concentrations of juveniles during much of the year.					
White Shrimp (Penaeus setiferus)					
Blue Crab (Callinectes sapidus)					
Stone Crab (Menippe mercenaria)					

TABLE FRP 3.14: SHELLFISH AND CRUSTACEANS					
SPECIES	SEASON				GENERAL
	SP	S	F	W	
Rock Shrimp (<i>Penaeus sicyonia</i>)					
CRUSTACEANS (cont)					
Southern Spiny Lobster (<i>Panulirus</i> sp.)					

TABLE FRP 3.15: ENDANGERED AND THREATENED SPECIES							
SPECIES	SEASON				STATUS		GENERAL
	SP	S	F	W	Federal	State	
BIRDS							
Vulnerability to Oil: Loss of food and habitat, ingestion of contaminated food and oiling of eggs and young are the primary oil spill impacts.							
Wood Stork (<i>Myceteria americana</i>)					Endangered.		
Bald Eagle (<i>Haliaeetus leucocephalus</i>)					Endangered.	Threatened.	
Peregrine Falcon (<i>Falco peregrinensis</i>)					Endangered.		
Red-Cockaded Woodpecker (<i>Picoides borealis</i>)					Endangered.	Threatened.	
FISH							
Vulnerability to Oil:							
None Identified							
MAMMALS							
Vulnerability to Oil: Oil will cause irritation of the mucous membranes upon prolonged exposure. They will attempt to avoid spill areas.							
Silver Rice Rat (<i>Oryzomys palustris natator</i>)					Endangered.		
Lower Keys Marsh Rabbit (<i>Sylvilagus palustris hefneri</i>)					Endangered.		
West Indian Manatee (<i>Tichechus manatus</i>)					Endangered.	Endangered.	

TABLE FRP 3.15: ENDANGERED AND THREATENED SPECIES (cont)

SPECIES	SEASON				STATUS		GENERAL
	SP	S	F	W	Federal	State	
REPTILES AND AMPHIBIANS							
Vulnerability to Oil: Located throughout the planning area in backwaters and marsh areas, impacts will depend on the type and amount spilled.							
Atlantic Loggerhead Turtle (<i>Carreta caretta</i>)					Endangered.		
Kemp's (Atlantic) Ridley Sea Turtle (<i>Lepidochelys kempii</i>)					Endangered.		
Green Sea Turtle (<i>Chelonia myolas</i>)					Endangered.		
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)					Endangered.		
Hawksbill Turtle (<i>Eretmochelys imbricata</i>)					Endangered.		
Gopher Tortoise (<i>Gopherus polyphemus</i>)					Threatened.		
American Alligator (<i>Alligator mississippiensis</i>)					Threatened.		
Eastern Indigo Snake (<i>Drymarchon corais couperi</i>)					Threatened.		

TABLE 3.16 FEDERAL & STATE LISTED CANDIDATE, THREATENED AND ENDANGERED SPECIES THAT OCCUR OR POTENTIALLY OCCUR ON NAS KEY WEST

SPECIES		STATUS	
COMMON NAME	SCIENTIFIC NAME	USFWS	FFWCC
Mammals			
Key Largo Woodrat	<i>Neotoma floridana smalli</i>	E	E
Silver Rice Rat ¹	<i>Oryzomys palustris natator</i>	E	E
Key Largo Cotton Mouse	<i>Peromyscus gossypinus allapaticola</i>	E	E
Lower Keys Marsh Rabbit ¹	<i>Sylvilagus palustris hefneri</i>	E	E
West Indian Manatee ¹	<i>Trichechus manatus</i>	E	E
Birds			
White-crowned Pigeon ¹	<i>Columba leucocephalus</i>		T
Peregrine Falcon ¹	<i>Falco peregrinus</i>		E
Bald Eagle ¹	<i>Haliaeetus leucocephalus</i>	T	T
Least Tern ¹	<i>Sterna Antillarum</i>		T
Roseate Tern ¹	<i>Sterna dougallii dougallii</i>	T	T
Reptiles & Amphibians			
American Crocodile ¹	<i>Crocodylus Acutus</i>	E	E
Eastern Indigo Snake	<i>Drymarchon Corais Couperi</i>	T	T
Green Sea Turtle	<i>Chelonia mydas</i>	E	E
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	E	E
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	E	E
Loggerhead Sea Turtle	<i>Caretta caretta</i>	T	T
Key Ringneck Snake	<i>Diadophis puctatus acricus</i>		T
Lower Keys Brown Snake	<i>Storeria dekayi victa</i>		T
Rim Rock Crowned Snake	<i>Tantilla oolitica</i>		T
Lower Keys Ribbon Snake	<i>Thamnophis sauritus sackenii</i>		T

Fish			
Smalltooth Sawfish	<i>Pristis pectinata</i>	E	E
Invertebrates			
Elkhorn Coral	<i>Acropora palmata</i>	PT	
Miami Blue Butterfly	<i>Cyclargus thomasi bethunebakeri</i>	C	E
Schaus Swallowtail Butterfly	<i>Heraclides aristodemus ponceanus</i>	E	E
Staghorn Coral	<i>Acropora cervicornis</i>	PT	
Stock Island Tree Snail	<i>Orthalicus reses (not incl. nesodryas)</i>	T	E
Plants¹			
Cinnecord, Tamarindillo	<i>Acacia choriophylla</i>		E
Barbed-Wire Cactus	<i>Acanthocereus tetragonus</i>		T
Seaside Ageratum	<i>Ageratum littorale</i>		E
Sea Lavender	<i>Argusia gnaphalodes</i>		E
Blodgett's Wild Mercury	<i>Argythamnia blodgettii</i>	C	E
Pine Pink Orchid	<i>Bletia purpurea</i>		T
Locustberry	<i>Byrsonima lucida</i>		T
Wild Cinnamon	<i>Canella winterana</i>		E
Garber's Spurge	<i>Chamaesyce garberi</i>	E	E
Porter's Sandmat	<i>Chamaesyce porteriana</i>		E
Silver Palm	<i>Coccothrinax argentata</i>		T
Curacao Bush	<i>Cordia globosa</i>		E
Rhacoma, Maidenberry	<i>Crossopetalum rhacoma</i>		T
Milkbark	<i>Drypetes diversifolia</i>		E
Red Stopper	<i>Eugenia rhombea</i>		E
Caribbean Princewood	<i>Exostema caribaeum</i>		E
Wild Cotton	<i>Gossypium hirsutum</i>		E
Lignum-Vitae	<i>Guaiacum sanctum</i>		E
Manchineel	<i>Hippomane mancinella</i>		E
Joewood	<i>Jacquinia keyensis</i>		T
Wild Dilly	<i>Manilkara jaimiqui</i>		T
Prickly Pear Cactus	<i>Opuntia stricta</i>		T
Smooth Devil's Claw	<i>Pisonia rotundata</i>		E

Long-Stalked Stopper	<i>Psidium longipes</i>	T
Bahama Wild Coffee	<i>Psychotria ligustrifolia</i>	E
Bahama Brake Fern	<i>Pteris bahamensis</i>	T
Inkberry, Half-Flower	<i>Scaevola plumieri</i>	T
Florida Boxwood	<i>Schaefferia frutescens</i>	E
Mahogany	<i>Swietenia mahagoni</i>	T
Silver Thatch Palm	<i>Thrinax morissii</i>	E
Green Thatch Palm	<i>Thrinax radiata</i>	E
Twisted Airplant	<i>Tillandsia flexuosa</i>	T
Giant Airplant	<i>Tillandsia utriculata</i>	E
West Indian Trema	<i>Trema lamarckianum</i>	E

SOURCE: USFWS & FFWCC 2006, FNAI 2005

STATUS

C = Candidate T = Threatened
E = Endangered PT = Proposed Threatened

¹ denotes species are known to occur on NAS Key West Property-(all plants listed were observed during FNAI surveys)

3.2 ANALYSIS OF THE POTENTIAL FOR AN OIL SPILL

TABLE FRP 3.17: ANALYSIS OF POTENTIAL FOR A SPILL										
CAUSE	NUMBER OF DISCHARGES		TOTAL VOLUME (gal)		AVERAGE VOLUME (gal)		PERCENT OF TOTAL		PROBABILITY (for given NAS)	
	FY90	FY91	FY90	FY91	FY90	FY91	BY #	BY VOL	ANNUAL %	YRS APART
Structural Failure	10	5	4,741	620	474	124	22%	30%	6.4%	16
Hose failure or leak	2	3	60	317	30	106	7%	2%	2.1%	48
Equipment failure	3	6	2,375	590	792	98	13%	17%	3.8%	26
Valve misalignment, opening, or failure	4	5	2,338	324	585	65	13%	15%	3.8%	26
Personnel or monitoring error	10	9	1,445	2,606	145	290	28%	23%	8.1%	12
Tank overflow	3	1	105	900,000	35	900,000	6%	1%	1.7%	59
Runoff or leaching	1	1	200	100	200	100	3%	2%	0.8%	125
Vehicle accident	2	3	675	1,308	338	435	7%	11%	2.1%	48
Unknown	9	12	3,940	609	438	51	NA	NA	9.0%	11
Collision, grounding, or sinking	1	0	20	0	20	0	1%	0%	0.4%	250
Totals	45	45	15,899	906,471	353	20,144	100%	101%	NA	NA

Source: The FY90 and FY91 editions of Naval Oil Spills Annual Report (using only spills reported to the Naval Facilities Engineering Service Center by the 117+ Naval Air Stations worldwide).
 FY91 is skewed by a 900,000-gal overflow at NAS Cecil Field, FL; it was allowed to remain in this analysis (except percentage of volume) to make it particularly realistic.

TABLE FRP 3.18: ANALYSIS OF THE POTENTIAL FOR OIL SPILLS AT IDENTIFIED SOURCES	
TANKS/TRANSFER FACILITY OPERATION:	
FACTOR	LOW, MEDIUM, OR HIGH
Probability of spills from equipment failure, malfunction, leaks, etc., due to age.	MEDIUM
Probability of spills due to throughput activity.	HIGH
Number of past spills.	LOW
Probability that corrective actions for spills will not eliminate/minimize same spills in future.	LOW
Accessibility of pathways to available water/sensitive areas (low if not easily accessible and high if readily accessible). Pathways:	HIGH
Vulnerability to natural disasters. Types:	MEDIUM
Probability of spills due to maintenance deficiencies.	MEDIUM

TABLE FRP 3.18: ANALYSIS OF THE POTENTIAL FOR OIL SPILLS AT IDENTIFIED SOURCES	
TANKS/TRANSFER FACILITY OPERATION:	
FACTOR	LOW, MEDIUM, OR HIGH
Types:	
Probability of spills due to operator training, job knowledge, and SOP shortfalls.	LOW
Potential for spills because of noncompliance with SPCC plan prevention requirements	HIGH
OVERALL POTENTIAL	MEDIUM

3.3 FACILITY REPORTABLE OIL SPILL HISTORY

** A COMPLETE REPORT CHRONOLOGY IS KEPT ON FILE IN THE ENVIRONMENTAL DEPARTMENT FILES

TABLE FRP 3.19: FACILITY OIL SPILL HISTORY				
DATE:	LOCATION:	PRODUCT:	SPILL VOLUME (gal):	SPILL VOLUME INTO NAVIGABLE WATER (gal):
CAUSE/ACTIONS				
Cause:				
Effectiveness and Capacity of Secondary Containment: Not applicable.				
Detection:				
Effectiveness of Monitoring Equipment: Not applicable.				
Recovery and Cleanup Actions:				
Corrections to Prevent Reoccurrence:				
Enforcement Action:				
DATE:	LOCATION:	PRODUCT:	SPILL VOLUME (gal):	SPILL VOLUME INTO NAVIGABLE WATER (gal):
CAUSE/ACTIONS				
Cause:				
Effectiveness and Capacity of Secondary Containment: Not applicable.				
Detection:				
Effectiveness of Monitoring Equipment: Not applicable.				
Recovery and Cleanup Actions:				
Corrections to Prevent Reoccurrence:				
Enforcement Action:				

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4.0 GENERAL

EPA regulated NTR facilities are required to develop oil spill scenarios based on the facility's multi-level discharge planning volumes. U.S. Coast Guard regulated facilities are required to identify oil spill volumes based on the facility's multi-level discharge planning volumes and develop a response strategy for the worst-case discharge. The EPA OPA 90 implementing regulation requires complex facilities to compare the multi-level discharge planning volumes computed under the EPA and USCG planning procedures and to plan for the greater volumes.

This FRP describes discharge scenarios to demonstrate plan implementation for the larger of the small or average most probable up to the maximum most probable or medium discharge planning volume. This plan has also defined the facility's worst-case discharge planning volume and associated response strategy. The worst-case discharge would involve activation of the regional NOSC Plan. Appendix C contains the derivation of the discharge planning volumes for this FRP.

4.1 SMALL/AVERAGE MOST PROBABLE AND MEDIUM/MAXIMUM MOST PROBABLE OIL DISCHARGES

TABLE FRP 4.1: DISCHARGE PLANNING VOLUMES		
OIL TYPE	SIZE CLASSIFICATION	SPILL VOLUME (gal.)
I	Small Spill/Average Most Probable Spill	2,100
	Medium Spill/Maximum Most Probable Spill	30,183

TABLE FRP 4.2: SMALL DISCHARGE SCENARIOS FOR TRANSFER FACILITIES		
TRANSFER FACILITIES		
POTENTIAL SPILL VOLUME (gal): 2,100	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON AGE OF EQUIPMENT, MATERIAL CONDITION, OPERATOR TRAINING AND EXPERIENCE.
POTENTIAL SPILL CAUSES	Tank overflows from valve misalignment, leaks from valves, flanges, and fittings; accidental damage and failure of hoses.	
POSSIBLE CHAIN REACTION OF FAILURES	Non-evident for small discharge scenarios	
LOCATION OF MATERIAL SPILLED	Secondary containment or onto the surrounding ground	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Due to the relative flat topography of the sites all product spilled has high potential of leaving the site. Product may enter into the storm water drainage system and travel to lagoons, ponds, or spill directly into the Atlantic Ocean or Gulf of Mexico waters.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Atlantic Ocean or the Gulf of Mexico	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE FIGURES ERAP MAPS 7-17 AND ACP MAPS 35, 36, 38, 39, and 40.	

TABLE FRP 4.3: SMALL DISCHARGE SCENARIOS FOR BULK OIL STORAGE FACILITY		
STORAGE TANK FUEL STORAGE FACILITY NAS KEY WEST		
POTENTIAL SPILL VOLUME (gal): 2,100	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON FACILITY.
POTENTIAL SPILL CAUSES		Tank overfills from valve misalignment and gauging errors; leaks from valves, flanges and fittings; improper repairs to and maintenance of valves, fittings, and flanges; accidental damage.
POSSIBLE CHAIN REACTION OF FAILURES		Non-evident in small discharge scenarios
LOCATION OF MATERIAL SPILLED		Primarily into secondary containment. If spills escape secondary containment product will flow onto surrounding grounds.
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE		Product escaping secondary containment will enter into storm water drainage system and flow into either lagoons or navigable waterways.
POTENTIAL RECEIVING NAVIGABLE WATERS		Gulf of Mexico and Atlantic Ocean
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES		All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE FIGURES ERAP MAPS 7-17 AND ACP MAPS 35, 36, 38, 39, and 40.

TABLE FRP 4.4: SMALL DISCHARGE SCENARIOS FOR PIPELINES, VALVES, AND OTHER OIL TRANSFER EQUIPMENT		
POTENTIAL SPILL VOLUME (gal): 2,100	TYPE OF OIL: I	POTENTIAL FOR SPILL LOW TO HIGH DEPENDING ON EQUIPMENT AGE, MAINTENANCE, ETC.
POTENTIAL SPILL CAUSES		Operator errors, valve misalignment, and gauging errors; leaks from valves, flanges, and fittings; improper repairs to and maintenance of valves, fittings, and flanges; accidental damage.
POSSIBLE CHAIN REACTION OF FAILURES		Non-evident for small spill scenarios
LOCATION OF MATERIAL SPILLED		Onto the surrounding ground or waters
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE		Spills can enter into lagoon and mangrove marsh from numerous locations. Probability of product leaving facility is high if not contained.
POTENTIAL RECEIVING NAVIGABLE WATERS		Gulf of Mexico and Atlantic Ocean
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES		All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17, ACP MAPS 35, 36, 38, 39, and 40.

TABLE FRP 4.5: MEDIUM DISCHARGE SCENARIOS FOR TRANSFER FACILITIES		
TRANSFER FACILITY		
POTENTIAL SPILL VOLUME (gal): 30,183	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON AGE OF EQUIPMENT, MATERIAL CONDITION, OPERATOR TRAINING, AND EXPERIENCE.
POTENTIAL SPILL CAUSES	Tank overflows from valve misalignment, leaks from valves, flanges, and fittings; accidental damage and failure of hoses.	
POSSIBLE CHAIN REACTION OF FAILURES	Non-evident for medium discharge scenarios	
LOCATION OF MATERIAL SPILLED	Secondary containment or onto the surrounding ground	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Due to the relative flat topography of the sites all product spilled has high potential of leaving the sit. Product may enter into the storm water drainage system and travel to lagoons, ponds, or spill directly into the Atlantic Ocean or Gulf of Mexico waters.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Atlantic Ocean or the Gulf of Mexico	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE FIGURES ERAP MAPS 7-17 AND ACP MAPS 35, 36, 38, 39, and 40.	

TABLE FRP 4.6: MEDIUM DISCHARGE SCENARIOS FOR BULK OIL STORAGE FACILITY		
STORAGE TANK FUEL STORAGE FACILITY NAS KEY WEST		
POTENTIAL SPILL VOLUME (gal): 30,183	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON THE FACILITY
POTENTIAL SPILL CAUSES	Tank overfills from valve misalignment and gauging errors; leaks from valves, flanges, and fittings; improper repairs to and maintenance of valves, fittings, and flanges; accidental damage.	
POSSIBLE CHAIN REACTION OF FAILURES	Non-evident	
LOCATION OF MATERIAL SPILLED	Primarily into secondary containment. If spills escape secondary containment product will flow onto surrounding grounds.	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Product escaping secondary containment will enter into storm water drainage system and flow into either lagoons or navigable waterways.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Gulf of Mexico and Atlantic Ocean	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17 AND ACP MAPS 35, 36, 38, 39, and 40.	

TABLE 4.7: MEDIUM DISCHARGE SCENARIO FOR PIPELINES, VALVES, AND OTHER OIL TRANSFER EQUIPMENT		
POTENTIAL SPILL VOLUME (gal): 30,183	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON EQUIPMENT AGE, MAINTENANCE, ETC.
POTENTIAL SPILL CAUSES	Operator errors, valve misalignment and gauging errors; leaks from valves, flanges, and fittings; improper repairs to and maintenance of valves, fittings and flanges; accidental damage.	
POSSIBLE CHAIN REACTION OF FAILURES	Non-evident	
LOCATION OF MATERIAL SPILLED	Onto the surrounding ground or navigable waterways	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Spills can enter into lagoon and mangrove marsh from numerous locations. Probability of product leaving facility is high if not contained.	

TABLE 4.7: MEDIUM DISCHARGE SCENARIO FOR PIPELINES, VALVES, AND OTHER OIL TRANSFER EQUIPMENT		
POTENTIAL SPILL VOLUME (gal): 30,183	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON EQUIPMENT AGE, MAINTENANCE, ETC.
POTENTIAL RECEIVING NAVIGABLE WATERS	Gulf of Mexico and Atlantic Ocean	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17 AND ACP MAPS 35, 36, 38, 39, 37, and 40.	

4.2 WORST-CASE OIL DISCHARGE

Table 4.8 identifies the worst-case spill planning volume associated with the loss of the contents of the largest oil storage tank within the bulk oil tank farm. Tables 4.9: to 4.11: identify potential scenarios for loss of tank contents directly as well as loss of contents via pipeline and ancillary equipment failure. Section 4.3 addresses on-site response strategies that would be initiated by NAS Key West and supported by the NOSC.

TABLE FRP 4.8: DISCHARGE PLANNING VOLUMES	
OIL TYPE	WORST-CASE SPILL VOLUME (gal.)
I	301,835
II	N/A
III	N/A
IV	N/A

TABLE FRP 4.9: WORST-CASE DISCHARGE SCENARIOS FOR TRANSFER FACILITIES		
TRANSFER FACILITY		
POTENTIAL SPILL VOLUME (gal): 301,835	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON MATERIAL CONDITION OF FACILITY AND LEVEL OF PREVENTIVE AND CORRECTIVE MAINTENANCE.
POTENTIAL SPILL CAUSES	Catastrophic tank failure or collapse coupled with secondary containment inability to contain the product or failure of the containment.	
POSSIBLE CHAIN REACTION OF FAILURES	Rapid failure of a tank could cause secondary damage to additional tanks the pipeline or control equipment.	
LOCATION OF MATERIAL SPILLED	See ERAP Maps 7-17 and ACP Maps 35, 36, 38, 39, and 40.	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Very likely that a significant amount of the product will flow offsite and into navigable waters. See ERAP Maps 7-17 and ACP Maps 35, 36, 38, 39, and 40.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Gulf of Mexico and Atlantic Ocean	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17, ACP MAPS 35, 36, 38, 39, 37, and 40.	

TABLE FRP 4.10: WORST-CASE DISCHARGE SCENARIOS FOR BULK OIL STORAGE FACILITY		
STORAGE TANK		
POTENTIAL SPILL VOLUME (gal): 301,835	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON MATERIAL CONDITION OF FACILITY AND LEVEL OF PREVENTIVE AND CORRECTIVE MAINTENANCE.
POTENTIAL SPILL CAUSES	Catastrophic tank failure or collapse coupled with secondary containment inability to contain the product or failure of the containment.	
POSSIBLE CHAIN REACTION OF FAILURES	Rapid failure of a tank could cause secondary damage to additional tanks the pipeline or control equipment.	
LOCATION OF MATERIAL SPILLED	See ERAP Maps 7-17 and ACP Maps 35, 36, 38, 39, and 40.	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Very likely that a significant amount of the product will flow offsite and into navigable waters. See ERAP MAPS 7-17 and ACP MAPS 35, 36, 38, 39, and 40.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Gulf of Mexico and Atlantic Ocean	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17, ACP MAPS 35, 36, 38, 39, 37, and 40.	

TABLE 4.11: WORST-CASE DISCHARGE SCENARIOS FOR PIPELINES, VALVES, AND OTHER OIL TRANSFER EQUIPMENT		
POTENTIAL SPILL VOLUME (gal): 301,835	TYPE OF OIL: I	POTENTIAL FOR SPILL: LOW TO HIGH DEPENDING ON EQUIPMENT AGE, MAINTENANCE, ETC.
POTENTIAL SPILL CAUSES	Operator errors, valve misalignment and gauging errors; leaks from valves, flanges, and fittings; improper repairs to and maintenance of valves, fittings, and flanges; accidental damage.	
POSSIBLE CHAIN REACTION OF FAILURES	Rapid failure of a tank could cause secondary damage to additional tanks the pipeline or control equipment.	
LOCATION OF MATERIAL SPILLED	SEE ERAP MAPS 7-17 ACP MAPS 35, 36, 38, 39, and 40.	
SPILL PATHWAYS AND LIKELIHOOD OF SPILL TRAVELING OFFSITE	Very likely that a significant amount of the product will flow offsite and into navigable waters. SEE ERAP MAPS 7-17 ACP MAPS 35, 36, 38, 39, and 40.	
POTENTIAL RECEIVING NAVIGABLE WATERS	Gulf of Mexico and Atlantic Ocean	
PROXIMITY OF FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS/RESOURCES INCLUDING DRINKING WATER INTAKES	All areas within the Keys are considered Vulnerable Aquatic Ecosystems and National Marine Sanctuaries. SEE ERAP MAPS 7-17 ACP MAPS 35, 36, 38, 39, and 40.	

General Description Response Activities — NAS Key West Incident:

Following is a description of likely response activities that would be initiated in response to the worst-case discharges — a catastrophic tank rupture at the bulk oil tank farm — loss of total containment — spillage of 301,835 gallons of jet fuel — Type I oil.

- First discover notifies NAS Key West Fire Department — 911.
- Personnel are evacuated to safe distance upwind.
- NAS Fire Department initiates notifications to Quarter Deck — Command Duty Office.
- CDO notifies Security, Environmental, and NAVOSH/Safety Departments.
- Immediate Response Team activated.
- Oil Spill Response Chief activated.
- Spill Response Team activated.
- Spill Management Team activated.

- Fire Department mobilizes to site. Fire Chief becomes Initial Incident/On-Scene Commander and initiates site assessment and safety characterization.
- Security establishes perimeter control.
- Emergency Operations Center (EOC) to coordinate initial response activities.
- Fire Chief and Spill Response Chief establish spill response objectives and strategies.
- Fire Chief and Spill Response Chief provide Initial Incident Assessment briefing to EOC using ICS 201 forms.
- On-scene response operations commence using Quick Reference Guide recommendations as appropriate to mitigate migration of spilled fuel.
- Containment boom deployed at East and West Lagoon culverts to block potential migration of spilled fuel into open waters.
- Spill Management Team (SMT) establishes EOC operations.
- NOSC Regional Coordinator/Qualified Individual notified by Facility Incident Commander and request for support made, e.g., response contractors, mutual aid, technical assistance, etc.
- NOSC request SOUTHNAVFACENGCOM assistance to activate BOA contractor support.
- FIC established liaison with US Coast Guard FOSC and Florida OSC to initiate formation of Unified Command.
- Open water response requirements assessed under Unified Command and objectives and strategies identified as appropriate. Refer to ERAP Maps 2 to 6 for sensitive area protection strategies.
- OSRO/BOA resources assigned open water tasks as well as on-scene related tasks, as appropriate.
- SMT engages in proactive incident management process operating within Unified Command structure involving integration of Navy, USCG, Florida State, and third party resources.

General Description Response Activities — Key West Pipeline Company Incident:

Following is a description of likely response activities that would be initiated in response to worst-case discharges as defined within the Key West Pipeline Company (KWPC) Facility Response Plan — a catastrophic tank rupture at the Terminal — spillage of 2.3 million gallons of jet fuel — Type I oil; or 26,000 gallons jet fuel resulting from leak of KWPC — NAS Key West pipeline. Consult the KWPC Facility Response Plan for additional information and details.

- KWPC First discover notifies NAS Key West Fire Department — 911.
- KWPC First discover notifies KWPC Headquarters.
- KWPC notifies Cliff Berry response contractor.
- Personnel are evacuated to safe distance upwind.
- NAS Fire Department initiates notifications to Quarter Deck — Command Duty Office.
- CDO notifies Security, Environmental, and NAVOSH/Safety Departments.
- Immediate Response Team activated.
- Oil Spill Response Chief activated.
- Spill Response Team activated.
- Spill Management Team activated.
- Fire Department mobilizes to site. Fire Chief becomes Initial Incident/On-Scene Commander and initiates site assessment and safety characterization.
- Security establishes perimeter control.
- Emergency Operations Center (EOC) established to coordinate initial response activities.
- Fire Chief, Spill Response Chief, and KWPC Qualified Individual establish spill response objectives and strategies.
- Fire Chief and Spill Response Chief provide Initial Incident Assessment briefing to EOC using ICS 201 forms.
- On-scene response operations commence using Quick Reference Guide recommendations as appropriate to mitigate migration of spilled fuel.

- Spill Management Team (SMT) establishes EOC operations.
- NOSC Regional Coordinator/Qualified Individual (QI) notified by Facility Incident Commander and advised of potential request for support, e.g., response contractors, mutual aid, technical assistance, etc.
- NOSC advises SOUTHNAVFACENGCOM that BOA contractor support may be required.
- KWPC QI establishes liaison with US Coast Guard FOSC and Florida OSC to initiate formation of Unified Command.
- Open water response requirements assessed under Unified Command and objectives and strategies identified as appropriate. Refer to ERAP Maps 2 to 6 for sensitive area protection strategies.
- OSRO resources assigned open water tasks as well as on-scene related tasks, as appropriate.
- SMT engages in proactive incident management process operating within Unified Command structure involving integration of Navy, USCG, Florida State, and third party resources.
- Navy personnel and equipment assets stand down as appropriate upon arrival of KWPC response resources and with approval/agreement of Unified Command.

4.3 WEATHER AND AQUATIC CONDITIONS IMPACTING SPILL RESPONSE

TABLE 4.12: WEATHER AND AQUATIC CONDITIONS IMPACTING SPILL RESPONSE						
CONDITION	SEASON					LIMITATIONS
	JAN FEB MAR	APR MAY JUN	JUL AUG SEP	OCT NOV DEC		
Predominant Wind Direction (Highest Percent)	E E E	E E E	E E E	NE NE E		
Wind Speed – Kts Direction	14.59 NW 13.81 NW 13.92 NW	13.29 E 12.13 E 10.58 E	10.89 E 10.23 E 11.36 E	13.24 NE 14.44 NE 14.33 NE		
Temperature Range (Average) - F.	85-43 85-45 88-47	90-54 93-66 95-68	95-70 94-69 93-66	91-60 89-50 89-43	1945 - 1990 Hourly Readings	
Current Speed – Kts (Average)/Direction	1.01/E 1.22/E 1.24/E	1.15/E 1.10/E 1.31/E	1.17/E 1.29/E 1.07/E	1.14/E 1.06/E 0.96/E		
Wave Height – Ft (Low - High)	2.3-3.3 2.2-3.1 2.2-3.1	2.2-3.0 2.0-2.5 1.9-2.1	1.8-2.1 1.8-2.0 2.0-2.5	2.5-3.1 2.2-3.2 2.2-3.3		
Hurricanes/Storms: Hurricane Season begins 01 June, ends 01 December						

**TABLE 4.12: WEATHER AND AQUATIC CONDITIONS IMPACTING SPILL RESPONSE
(Cont.)**

Other Conditions And Limitations: Narrative Climatology

JANUARY — FEBRUARY — MARCH

By January polar outbreaks by frontal passages become the paramount weather features in the local area. Frontal passages occur on the average of once every six to eight days until mid-February, decreasing to once every 8 to 12 days thereafter. About 65% of these fronts are oriented northeast-southwest. Usually scattered rain showers accompany northeast-southwest oriented fronts, however, occasional prefrontal squall lines precede these fronts. Heavy rain showers or thunderstorms with strong gusty winds of short duration may accompany the prefrontal squall line. On occasions when east- west oriented fronts effect the local area, waves sometimes develop in the Gulf of Mexico, move eastward and bring light to moderate rain into the local area. This particular weather situation can produce extended periods of cloudiness and precipitation.

By late March, the sub-tropical pressure ridge becomes re-established over Florida, eliminating frontal passages and beginning tropical convective weather influences.

APRIL — MAY — JUNE

The month of April finds the subtropical ridge re-establishing itself over Florida and the Gulf of Mexico. Frontal Passages become rare in Key West. Easterly waves may pass to the south.

The subtropical ridge becomes well established over Key West in May. The frequency of easterly waves affecting this area begins to increase. May is considered more a transitional period into the rainy season, at which time abundant rainfall can be expected. Also, increased waterspout activity is noted during the month of May in and near showers and thunderstorms, and these should be avoided by boaters due to their capsizing potential.

Showers and thunderstorms increase during the month of June as unstable maritime air from the Bermuda High dominates. Tropical disturbances tend to develop in the Caribbean or the Gulf of Mexico. The hurricane season officially begins 01 June.

JULY — AUGUST — SEPTEMBER

The westward extension of the Bermuda High is the dominate feature of the Key West area during July. However, the pressure gradient is usually flat and weak. Frequently, the high will split in the vicinity of Cuba leaving a small bubble of high pressure in the Gulf of Mexico and an induced trough or easterly wave over Cuba and the Bahamas. Easterly waves affect the Key West area on six to eight days during this month. It is likely that tropical disturbances will develop in the Caribbean or in the Gulf of Mexico and may affect this area.

During August, Key West is still under the influence of the westward extension of the Bermuda High. Warm, moist, unstable air covers the area and easterly wave passage occurs about every five to seven days. There is a good chance of tropical disturbances forming in the Caribbean or in the Gulf of Mexico, which may affect this area.

During September, the westward extension of the Bermuda High begins its slow regression eastward. The Polar Front occasionally lies over the southeastern United States with a few polar outbreaks into the northern Gulf of Mexico. Easterly wave passage occurs at Key West on the average of one every five to seven days. Tidal flooding of the extreme low lying areas may occur within two weeks of the Autumnal Equinox (22 September).

OCTOBER — NOVEMBER — DECEMBER

As the end of the year approaches, Key West's weather becomes increasingly influenced by polar outbreaks. These polar fronts are greatly modified by their long trek across the warm waters of the Gulf of Mexico.

Cold fronts approaching Key West with a NNE-SSW orientation usually have little weather at the frontal boundary. However, these fronts are often preceded by a squall. Fronts with an E-W orientation produce considerable precipitation and last for extended periods. These fronts have a tendency to stall in the Florida straits and progress northwards as a warm front. Low pressure systems or waves frequently develop on fronts in the Gulf of Mexico and propagate along the front producing extended periods of cloudiness and precipitation.

The winter season in the Keys also begins a period of extended small craft force winds as strong Canadian Highs move in behind the polar fronts. 01 December marks the conclusion of the hurricane seasons.

TAB 5: DISCHARGE DETECTION SYSTEMS

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5.0 GENERAL

The spill detection capabilities described in this section determine NAS Key West ability to detect or discover spills. The initial goal of a response is to stop the flow and deploy resources to recover oil and minimize harm to the environment. Prompt detection of spills is critical. Emergency response actions and information are contained in Tabs A to I (ERAP).

5.1 DISCHARGE DETECTION BY PERSONNEL

TABLE FRP 5.1: DISCHARGE DETECTION BY PERSONNEL					
Type of Inspection	Frequency	Responsible Person	Regulatory Driver	Inspection Form	Record Retention
Bulk Tanks					
External Visual (routine)	monthly ¹	Operators	FL DEP 62-761	Appd. C	3 yr.
External Visual (non-routine)	IAW API 653 4.3.2.1	FL P.E. or API 653 Authorized Inspector	FL DEP 62-761	—	3 yr.
External Ultrasonic ² (non-routine)	IAW API 653 4.3.3.2	FL P.E. or API 653 Authorized Inspector	FL DEP 62-761	—	Indefinite
Internal (non-routine)	IAW API 653 4.4.2 or 4.4.3	FL P.E. or API 653 Authorized Inspector	FL DEP 62-761	—	Indefinite
Other Tank Gaging Issue & Receipt Reconciliation	Daily Before, during, and after transfers	Operators Operators	Standard Operating Procedures	—	—
Cathodic Protection System					
External (non-routine)	IAW API RP 651	IAW API RP 651	FL DEP 62-761	—	Indefinite
General (non-routine)	within 6 months of installation/repair and annually thereafter	Corrosion Professional or Cathodic Protection Tester	FL DEP 62-761	—	Indefinite
Operational ^{3,4} (routine)	every two months	Operator	FL DEP 62-761	Appd. C	Indefinite
Product Piping					
External Visual (routine)	Monthly	Operator	FL DEP 62-761	Appd. C	3 yr.
Operational (routine)	during fuel transfer	Operator	Navy Fuel Depot SOP	—	3 yr.
Pressure Testing ⁵ (non-routine)	Annual	Qualified Inspector	MTR - FL DEP 62-761; nMTR – 33 CFR 156.170	—	3 yr.
Truck Loading Stations					
External Visual (routine)	Weekly	Operator	40 CFR 112 and FL DEP 62-761	Appd. C	3 yr.

TABLE FRP 5.1: DISCHARGE DETECTION BY PERSONNEL (Cont.)					
Type of Inspection	Frequency	Responsible Person	Regulatory Driver	Inspection Form	Record Retention
Ancillary Tanks					
External Visual (routine)	Weekly	Operator	FL DEP 62-761 (for ASTs > 550 gal.); 40 CFR 112	Appd. C	3 yr.
Generators					
External Visual (routine)	Weekly	Operator	40 CFR 112	Appd. C	3 yr.
Transformers					
External Visual (routine)	Weekly	Operator	40 CFR 112	Appd. C	3 yr.
Oil/Water Separators					
External Visual (routine)	Weekly	Operator	40 CFR 112	Appd. C	3 yr.

Notes:

- 1 — monthly, yet no later than 35 days from the previous inspection (per FL DEP 62-761)
- 2 — internal (non-routine) inspection may substitute for external ultrasonic inspection **IF** API 653 4.3.3.3 is met
- 3 — impressed current systems that are inoperative for a cumulative period exceeding 1,440 hours shall be assessed by a Corrosion Professional to ensure the storage tank system is structurally sound, free of corrosion holes, and operating in accordance with design criteria (per FL DEP 62-761)
- 4 — inspector must be knowledgeable about cathodic protection system and impressed current principles and operation
- 5 — non-marine transportation related product piping — per API RP 1110 or ASME B31.4, or equivalent as approved by FL DEP; marine transportation related product piping B per 33 CFR 156.17
- routine — inspection can be performed by a qualified operations personnel (recommend Environmental Engineer)
- non-routine — inspection is performed by qualified personnel in accordance with regulatory requirements (FL DEP 62-761 or 33 CFR 156.170) and/or industry accepted standards
- API — American Petroleum Institute
- ASME — American Society of Mechanical Engineers
- CFR — Code of Federal Regulations
- FL DEP — Florida Department of Environmental Protection
- IAW — in accordance with
- MTR — marine transportation related
- nMTR — non-marine transportation related

5.2 AUTOMATED DISCHARGE DETECTION

NAS Key West does not possess automated discharge detection systems.

TAB 6: PLAN IMPLEMENTATION

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6.0 RESPONSE RESOURCES REQUIRED BY OPA 90

This section identifies the response resources required to respond to the small, medium, and worst-case planning volumes determined under the EPA and USCG OPA 90 regulations.

Each of the tables below identifies and demonstrates accessibility to one of the three types of response resources that must be addressed in accordance with 40 CFR 112 Appendix E and 33 CFR 154 Appendix C: oil recovery devices, boom, and temporary storage equipment. Each table states the regulatory requirements for each discharge planning level and describes how the requirements will be met. As noted in the regulations, 20% of the described on-water response equipment listed in this plan is able to function in six feet of water, or less.

See Appendix C of this FRP for the basis and derivations of the discharge planning volumes and response capability requirements.

TABLE FRP 6.1: MINIMUM REQUIRED OIL RECOVERY, CONTAINMENT AND TEMPORARY STORAGE RESOURCES FOR SMALL DISCHARGE			
OIL RECOVERY REQUIREMENT	<ul style="list-style-type: none"> Daily Recovery Rate: 2,100 gal/day On Scene Within 2 Hours Of Detection 		
FACILITY OIL RECOVERY EQUIPMENT AVAILABLE TO MEET REQUIREMENT	EQUIPMENT	DERATED CAPACITY (gal/day)	
	SKIMMER	10,080	
	VACUUM TRUCK #1	23,040	
	VACUUM TRUCK #2	23,040	
	TOTAL DERATED CAPACITY (gal/day)	56,160	
SOURCE/LOCATION OF EQUIPMENT AND DEPLOYMENT TIME (Time for notification, mobilization and travel)	Vacuum Truck #1 Truman Annex Building-284 - 1 hour Vacuum Truck #2 Truman Annex Building-284 - 1 hour Belt Skimmer Truman Annex Building-284 - 1 hour		
FACILITY OIL RECOVERY SHORTFALL	ADDITIONAL DERATED CAPACITY NEEDED (gal/day)	SOURCE	ON-SCENE TIME
0 gal/day	NONE	N/A	N/A
	TOTAL ADDITIONAL DERATED CAPACITY NEEDED (gal/day)	N/A	

TABLE FRP 6.1: MINIMUM REQUIRED OIL RECOVERY, CONTAINMENT, AND TEMPORARY STORAGE RESOURCES FOR SMALL DISCHARGE (Cont.)					
BOOM REQUIREMENTS		<ul style="list-style-type: none"> 1,000 Linear ft. OR 2 X Length of Longest Vessel — 1,000 ft., whichever is greater Means Of Immediate Deployment (Within 1 hr of Spill Discovery) 			
FACILITY BOOMS AVAILABLE TO MEET REQUIREMENTS		BOOM TYPE		TOTAL LENGTH (ft)	
		TYPE II		7,900	
		TYPE III		850	
SOURCE/LOCATION OF BOOMS AND DEPLOYMENT TIME (Time for notification, mobilization and travel)		Truman Annex Building-284 (TYPE II- 3,900 ft) <ul style="list-style-type: none"> Boca Chica Marina (1,000 ft TYPE II) Less than 1 hour 			
FACILITY BOOM SHORTFALL		ADDITIONAL BOOM REQUIREMENT			
TYPE	LENGTH (ft)	SOURCE OF ADDITIONAL TYPE BOOMS	TOTAL LENGTH (ft)	DEPLOYMENT TIME	
	0				
TEMPORARY OIL STORAGE EQUIPMENT REQUIREMENTS		<ul style="list-style-type: none"> 2 X Required Daily Oil Recovery Rate — 4,200 gal/day On Scene Within 2 Hours Of Spill detection 			
FACILITY TEMPORARY OIL STORAGE EQUIPMENT TO MEET REQUIREMENTS		EQUIPMENT	TOTAL STORAGE CAPACITY (gal)	DAILY STORAGE CAPACITY (gal/day)	NO. OF AVAILABLE DAYS
		AST D-1292-BR Poly Tank	20,000	20,000	Continuous
		Vacuum Truck #1	9,000	9,000	
		Vacuum Truck #2	2,000	2,000	
		Skimmer	1,800	1,800	
Bladder	1,000	1,000			
		TOTAL AVAILABLE DAILY STORAGE CAPACITY (gal/day)	35,050 gal	Continuous	
SOURCE/LOCATION OF STORAGE EQUIPMENT AND ON-SCENE ARRIVAL TIME (Time required for notification, mobilization and travel)		AST D-1292-BR Poly Tank Vacuum Truck #1 Vacuum Truck #2 Skimmer Bladder	Key West Pipeline Terminal Key West Pipeline Terminal Truman Annex Building-284 Truman Annex Building-284 Truman Annex Building-284 Truman Annex Building-284	1 hour 1 hour 1 hour 1 hour	
FACILITY TEMPORARY OIL STORAGE SHORTFALL		ADDITIONAL EQUIPMENT AND CAPACITY (gal/day)	ON-SCENE TIME	SOURCE	
0 gal/day		TEMPORARY STORAGE FROM TANKER TRAILERS, 55-gal DRUMS, and OTHER MEANS.	N/A	N/A	
		TOTAL ADDITIONAL DAILY STORAGE CAPACITY (gal/day)	N/A	N/A	

TABLE FRP 6.2: MINIMUM REQUIRED OIL RECOVERY, CONTAINMENT, AND TEMPORARY STORAGE RESOURCES FOR MEDIUM DISCHARGE

OIL RECOVERY REQUIREMENT		<ul style="list-style-type: none"> Daily Recovery Rate: 15,092 gal/day On Scene Within 6 Hours Of Detection (In Higher Volume Port Areas and Great Lakes) 12 Hours Of Detection (In All Other Areas) 		
FACILITY OIL RECOVERY EQUIPMENT AVAILABLE TO MEET REQUIREMENT	EQUIPMENT		DERATED CAPACITY (gal/day)	
	SKIMMER		10,080	
	VACUUM TRUCK #1		23,040	
	VACUUM TRUCK #2		23,040	
	TOTAL DERATED CAPACITY (gal/day)		56,160	
SOURCE/LOCATION OF EQUIPMENT AND ON-SCENE ARRIVAL TIME (Time for notification, mobilization, and travel)		Vacuum Truck #1 Truman Annex Building-284 – 1 hour Vacuum Truck #2 Truman Annex Building-284 - 1 hour Belt Skimmer Truman Annex Building-284 - 1 hour		
FACILITY SHORTFALL		ADDITIONAL DERATED DAILY STORAGE CAPACITY (gal/day)	SOURCE	ON-SCENE TIME
0 gal/day		0	N/A	N/A
		TOTAL ADDITIONAL DERATED DAILY STORAGE CAPACITY (gal/day)	N/A	
BOOM REQUIREMENTS		<ul style="list-style-type: none"> Sufficient Quantities For Oil Collection, Containment And Protection of Fish and Wildlife and Sensitive Environments On Scene within 6 Hours Of Detection (in Higher Volume Port Areas and Great Lakes/12 Hours Of Detection in All Other Areas) 		
FACILITY BOOMS AVAILABLE TO MEET REQUIREMENTS		BOOM TYPE		TOTAL LENGTH (ft)
		TYPE II		7,900
		TYPE III		850
SOURCE/LOCATION OF BOOMS AND ON-SCENE ARRIVAL TIME (Time for notification, mobilization and travel)		<ul style="list-style-type: none"> Building C-1 (TYPE II- 3,900 ft) Boca Chica Marina (1,000 ft TYPE II) Less than 1 hour 		
FACILITY SHORTFALL		ADDITIONAL BOOM REQUIREMENT		
TYPE	LENGTH (ft)	SOURCE	TOTAL LENGTH (ft)	DEPLOYMENT TIME
TYPE II	8,200	Southern Waste Services	8,200	4 hours

TABLE FRP 6.2: MINIMUM REQUIRED OIL RECOVERY, CONTAINMENT, AND TEMPORARY STORAGE RESOURCES FOR MEDIUM DISCHARGE (Cont.)				
TEMPORARY OIL STORAGE EQUIPMENT REQUIREMENTS	<ul style="list-style-type: none"> • 2X Required Daily Oil Recovery Rate – 30,184 gal/day • On Scene within 6 Hours of Detection (in Higher Volume Port Areas and Great Lakes/12 hours of Detection in All Other Areas) 			
FACILITY TEMPORARY OIL STORAGE EQUIPMENT TO MEET REQUIREMENTS	EQUIPMENT	TOTAL STORAGE CAPACITY (gal)	DAILY STORAGE CAPACITY (gal/day)	NO. OF AVAILABLE DAYS
	AST D-1292-BR Poly Tank	20,000	20,000	Continuous
	Vacuum Truck #1	9,000	9,000	
	Vacuum Truck #2	2,000	2,000	
Skimmer	1,800	1,800		
Bladder	1,000	1,000		
TOTAL AVAILABLE DAILY STORAGE CAPACITY (gal/day)		35,050 gal		
SOURCE/LOCATION OF STORAGE EQUIPMENT AND ON-SCENE ARRIVAL TIME (Time for notification, mobilization, and travel)	AST D-1292-BR Poly Tank	Key West Pipeline Terminal		
	Vacuum Truck #1	Key West Pipeline Terminal		
	Vacuum Truck #2	Truman Annex Building-284		1 hour
	Skimmer	Truman Annex Building-284		1 hour
	Bladder	Truman Annex Building-284		1 hour
FACILITY SHORTFALL	ADDITIONAL EQUIPMENT AND CAPACITY (gal/day)	SOURCE	ON-SCENE TIME	
0 gal/day	TANKER TRAILERS FRAC TANKS TEMPORARY STORAGE TANKS	N/A	N/A	
	TOTAL ADDITIONAL DAILY STORAGE CAPACITY (gal/day)	N/A		

TABLE FRP 6.3: MINIMUM REQUIRED OIL RECOVERY, CONTAINMENT, AND TEMPORARY STORAGE RESOURCES FOR WORST-CASE DISCHARGE					
OIL RECOVERY REQUIREMENT					
NTR FACILITY			MOBLIE MTR FACILITY		
TIER 1 gal/day	TIER 2 gal/day	TIER 3 gal/day	TIER 1 gal/day	TIER 2 gal/day	TIER 3 gal/day
9,055	15,091	24,146	80	800	8,000
ON-SCENE TIER TIMES (Hours)			ON-SCENE TIER TIMES (Hours)		
12	36	60	12	36	60

TABLE FRP 6.4: FACILITY OIL RECOVERY EQUIPMENT TO MEET REQUIREMENT			
NTR FACILITY TIER	EQUIPMENT	DERATED CAPACITY (gal/day)	ON-SCENE TIME (Hours)
TIER 1	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
TIER 2	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
TIER 3	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
MOBILE MTR FACILITY TIER	EQUIPMENT	DERATED CAPACITY (gal/day)	
TIER 1	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
TIER 2	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
TIER 3	SKIMMER	10,080	<1
	VACUUM TRUCK #1	23,040	<1
	VACUUM TRUCK #2	23,040	<1
	TOTAL DERATED CAPACITY (gal/day)	56,160	
SOURCE/LOCATION OF EQUIPMENT	VACUUM TRUCK #1 Truman Annex Building-284 VACUUM TRUCK #2 Truman Annex Building-284 SKIMMER Truman Annex Building-284		

TABLE FRP 6.4: FACILITY OIL RECOVERY SHORTFALL (Cont.)			
NTR FACILITY TIER	FACILITY AVAILABLE AND CONTRACTOR NEEDED - DERATED CAPACITIES TO MEET REQUIREMENTS (gal/day)	SOURCE	ON-SCENE TIME (Hours)
TIER 1	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		9,055
TIER 2	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		15,091
TIER 3	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		24,146
MOBILE MTR FACILITY TIER	FACILITY AVAILABLE AND CONTRACTOR NEEDED — DERATED CAPACITIES TO MEET REQUIREMENTS (gal/day)	SOURCE	ON-SCENE TIME (Hours)
TIER 1	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		80
TIER 2	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		800
TIER 3	0	Southern Waste Services	4
	56,160	NAS Key West	2
	TOTAL DERATED CAPACITY REQUIRED (gal/day)		8,000

TABLE FRP 6.5: BOOM REQUIREMENTS				
<ul style="list-style-type: none"> Sufficient Quantities For Oil Collection, Containment, and Protection of Fish and Wildlife, and Sensitive Environments On-Scene Within Specified Tiered Response Times 				
BOOM TYPE	PURPOSE			REQUIRED (ft)
TYPE II	DIVERSION, CONTAINMENT			20,000
FACILITY BOOMS AVAILABLE TO MEET REQUIREMENTS				LENGTH (ft)
	TYPE II	CONTAINMENT		10,200
	TYPE III	CONTAINMENT		
SOURCE/LOCATION OF BOOMS AND ON-SCENE ARRIVAL TIME (Time for notification, mobilization and travel)	<ul style="list-style-type: none"> Truman Annex Building -284 (TYPE II- 3,900 ft) Boca Chica Marina (1,000 ft TYPE II) Less than 1 hour Truman Annex Building -284 (TYPE II) 			
FACILITY BOOM SHORTFALL				
<u>BOOM</u>	LENGTH (ft)	PURPOSE	SOURCE	ON SCENE TIME
TYPE II	8,200	DIVERSION AND CONTAINMENT	SOUTHERN WASTE SERVICES	4 hours

TABLE FRP 6.6: TEMPORARY OIL STORAGE REQUIREMENT					
NTR FACILITY			MOBLIE MTR FACILITY		
TIER 1 gal/day	TIER 2 gal/day	TIER 3 gal/day	TIER 1 gal/day	TIER 2 gal/day	TIER 3 gal/day
18,110	30,182	48,292	160	1,600	16,000
ON-SCENE TIER TIMES (Hours)			ON-SCENE TIER TIMES (Hours)		
12	36	60	12	36	60

TABLE FRP 6.7: FACILITY TEMPORARY OIL STORAGE EQUIPMENT TO MEET REQUIREMENT			
MTR FACILITY TIER	EQUIPMENT	DAILY STORAGE CAPACITY (gal/day)	ON- SCENE TIME (Hours)
TIER 1	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
TIER 2	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
TIER 3	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
NTR FACILITY TIER	EQUIPMENT	CAPACITY (gal/day)	ON- SCENE TIME (Hours)
TIER 1	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
TIER 2	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
TIER 3	AST D-1292-BR	20,000	
	POLY TANK	9,000	
	VACUUM TRUCK #1	2,000	1
	VACUUM TRUCK #2	1,800	1
	SKIMMER	1,000	1
	BLADDER	1,250	1
	TOTAL DAILY STORAGE CAPACITY (gal/day)		35,050
SOURCE/LOCATION OF EQUIPMENT	AST D-1292-BR		
	Key West Pipeline Terminal		
	POLY TANK		
	Key West Pipeline Terminal		
	VACUUM TRUCK #1		
	Truman Annex Building -284		
	VACUUM TRUCK #2		
Truman Annex Building -284			
SKIMMER			
Truman Annex Building -284			
BLADDER			
Truman Annex Building -284			

TABLE FRP 6.7: FACILITY TEMPORARY OIL STORAGE EQUIPMENT TO MEET REQUIREMENT			
MOBILE MTR FACILITY TIER	FACILITY AVAILABLE, AND CONTRACTOR NEEDED, DAILY STORAGE CAPACITY (gal/day)	SOURCE	ON-SCENE TIME (Hours)
TIER 1	0	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	160	
TIER 2	0	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	1,600	
TIER 3	0	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	16,000	
NTR FACILITY TIER	DAILY STORAGE CAPACITY NEEDED (gal/day)	SOURCE	ON-SCENE TIME (Hours)
TIER 1	0	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	18,110	
TIER 2	0	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	30,182	
TIER 3	13,042	Southern Waste Services	4
	35,050	NAS Key West	1
	TOTAL TEMPORARY STORAGE CAPACITY REQUIRED (gal/day)	48,292	

TABLE FRP 6.8: IDENTIFICATION OF OSRO FOR SHORELINE CLEANUP OPERATION	
WORST-CASE ONSHORE PLANNING VOLUME (gal.)	30,182
OSRO	
Name:	Southern Waste Services
Address:	1619 Moylan Road, Panama City Beach, FL 33408
24-hr. Telephone:	(800) 852-8878

TABLE FRP 6.10: IMPLEMENTATION OF RESPONSE PLAN FOR A WORST-CASE DISCHARGE		
PHASE	DESCRIPTION OF IMPLEMENTATION ACTIONS	PLAN SECTION
Emergency Phase	<u>Description Of Actions</u> Operators discover spill and take emergency action to: * Secure the sources to stop the flow from reaching navigable waters * Shutdown pumping operations * Cover storm drains * Remove/shutdown all sources of ignition * Warn all personnel * Evacuate the area as appropriate * Notify appropriate Agencies and facility response personnel * Implement Generic Emergency Response Plan * Implement response procedures shown in Quick Reference Guide * Notify NOSC and assess need for additional support * Determine if sensitive areas are at risk. If yes, implement protection strategies.	TAB D TAB I TAB B, E TABLES D.1-7 TAB G RED PLAN
	<u>Potential Problems And Recommended Corrective Actions</u> No adequate shoreline cleanup contractor available in local area.	
Response Phase	<u>Description Of Actions</u> * Assess weather and response conditions * Determine containment and recovery needs and actions and implement actions with facility response equipment * Monitor spill movements and react as necessary * Implement disposal plan * If shoreline is impacted by spill, assess cleanup requirements	TABLE 4.14 TAB F TAB 2 TAB G, J TAB H TAB 6
	<u>Potential Problems And Recommended Corrective Actions</u> No adequate shoreline cleanup contractor available in local area.	
Cleanup Phase	<u>Description Of Actions</u> * Complete spill recovery and shoreline cleanup if necessary * Waste handling and disposal	TAB 6 TAB H, 6
	<u>Potential Problems And Recommended Corrective Actions</u> No adequate shoreline cleanup contractor available in the local area.	

TABLE FRP 6.11: CLEANUP EXPEDITING STEPS	
TOPIC	DISCUSSION
OTHER EXISTING EMERGENCY PLANS FOR SPILL RESPONSE	<ul style="list-style-type: none"> The NAS Key West NOSC Plan is the Navy's equivalent to an Area Contingency Plan. The NOSC is the official point of contact for accessing additional resources identified in the NOSC plan and this FRP <p>The NAS Key West ERAP contains additional response resources that can be activated according to that plan to respond to spills from (NAS Key West)</p>
ACCESS TO ADDITIONAL CONTRACTED HELP	Activate BOA contracts via NOSC
ACCESS TO ADDITIONAL EQUIPMENT/EXPERTS	Activate BOA contracts via NOSC
ADDITIONAL TRAINING PLANNED (through drills, etc.)	None Identified
ABILITY TO IMPLEMENT PLAN	Declared resources, both personnel and equipment, are available for the implementation of this plan. Training and drills described in this FRP will maintain response readiness and expedite a response to an actual spill event.

6.2 DISPOSAL PLAN

A reproduction of DoD Instruction 4160.21-M, Hazardous Property Management, which covers the handling, processing, and disposal of hazardous wastes, is provided in ERAP Tab H. This Instruction applies to the hazardous waste generated through an oil or hazardous substance spill that is managed through the NAS Key West Public Works Department, Environmental and Hazardous Waste Branch. Also provided in Tab H, is a discussion on waste disposal from the South Florida Area Contingency Plan and a sample Waste Disposal Plan.

The types of waste expected from a spill response are:

- Fresh oil, oily wastes, and weathered oil
- Oil and water emulsions
- Oil-contaminated wastes such as:
 - Spent sorbents
 - Oil-contaminated debris and materials such as disposable personal protection equipment, rags, plastic bags, or sheets, etc.
 - Oiled vegetation, soil and sand if onshore cleanup operations occurs in the response
 - Oil-contaminated wildlife carcasses
 - Waste decontamination solutions and effluents from equipment decontamination operations
 - Non-contaminated wastes from response operations

Use the tables in this FRP outline to identify the potential waste generated in a spill response, requirements and procedures to recover, reuse, decontaminate, or properly dispose of these materials, and account for any regulatory or disposal facility requirements. The disposal plan in the FRP should comply and be compatible with the facility's procedures and policies for the management of nonhazardous and hazardous wastes.

TABLE FRP 6.12: TEMPORARY STORAGE EQUIPMENT FOR COLLECTED OIL AND RESPONSE WASTE		
EQUIPMENT	CAPACITY	LOCATION/POC/TELEPHONE
Bulk Storage Equipment For Recovered Oil	>100,000 BBLs	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408, (800) 852-8878
(As listed in Tables 6.1 to 6.7)	(As listed in Tables 6.1 to 6.7)	(As listed in Tables 6.1 to 6.7)
Storage Equipment For Contaminated Wastes	—	Facility utilizes 55-gal drums for wastes. There are no provisions for large quantity spills.
Storage Equipment For Hazardous Wastes	—	Facility utilizes 55-gal drums for wastes. There are no provisions for large quantity spills
Storage Equipment For Other Response Wastes And Debris	—	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408, (800) 852-8878

TABLE FRP 6.13: MATERIAL CLASSIFICATION AND DISPOSAL STRATEGY			
MATERIAL	CLASSIFICATION	DISPOSAL STRATEGY	DISPOSAL FACILITY
Recovered Oil	Recoverable	Reuse/Recycle	DRMO
	Nonhazardous Waste	Reuse/Recycle	DRMO
	Hazardous Waste	Reuse/Recycle	DRMO
Oil-Contaminated Wastes	Nonhazardous Waste	Contact DEP	DRMO
	Hazardous Waste	Contact DEP	DRMO
Contaminated Soil	Nonhazardous	Thermal Treatment	DRMO
	Hazardous	Thermal Treatment	DRMO
Contaminated Equipment	Nonhazardous	Decon-Reuse	DRMO
	Hazardous	Decon-Reuse	DRMO
Waste Chemicals to Include DECON Solutions	Nonhazardous Waste	Treatment	DRMO
	Hazardous Waste	Treatment	DRMO
Dead Wildlife	Protected	Contact FLA DEP	Contact FLA DEP
	Other	Contact FLA DEP	Contact FLA DEP
Personal Protection Equipment	Nonhazardous	Landfill	DRMO
	Hazardous	Landfill	DRMO
Adsorbents	Nonhazardous	Treatment	DRMO
	Hazardous	Treatment/Landfill	DRMO
Other Response Wastes	Nonhazardous Waste	Contact DEP	DRMO
	Hazardous Waste	Contact DEP	DRMO

TABLE FRP 6.14: DISPOSAL STRATEGY, DISPOSAL CRITERIA, AND CONDITIONS

All hazardous waste and petroleum waste must be processed for disposal through DRMO or a NAS Supply Contract. Most waste material will be processed by DRMO through existing contracts. See Table ERAP H.3 for the DRMO POC. Follow the DOD 4160.21-M Hazardous Property Management Instruction.

TABLE FRP 6.15: DISPOSAL PLAN STANDARD OPERATIONAL PROCEDURES

MATERIAL	PROCEDURES
Recovered Oil	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Oil-Contaminated Wastes	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Contaminated Soil	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Contaminated Equipment	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Waste Chemicals and DECON Solutions	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Personal Protection Equipment	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Adsorbents	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Dead Wildlife	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.
Other Response Wastes	Contact the Florida Department of Environmental Protection at (904) 488-1320 for site approval.

CAUTION

DO NOT MIX NONHAZARDOUS WASTES WITH HAZARDOUS WASTES OR MATERIALS

MINIMIZE HAZARDOUS WASTES GENERATED

6.3 CONTAINMENT AND DRAINAGE PLANNING

Note: Never release trapped oil from secondary containment into a drainage system. Remove spilled oil from a secondary containment area by pumping it out with vacuum trucks or by using portable hose and pumps to pump to undamaged tanks or containers.

Florida DEP Petroleum Contact Water Regulations 62-740 require water contaminated with petroleum be disposed at approved facilities and not drained into waterways from containment.

TABLE FRP 6.16: CONTAINMENT AND DRAINAGE PLAN FOR SPILLS			
ALL OPERATIONS — BOCA CHICA		BOCA CHICA WESTERN AND EASTERN LAGOON SYSTEM	
CONTAINMENT/DRAINAGE TYPE AND CONSTRUCTION MATERIALS	CAPACITY (gal)	CONTAINMENT/DRAINAGE DISCHARGE ROUTE	
Fuel Farm — Earthen Berm	2,650,000	Spill flow will be south into the two lagoon systems bordering Old State Road 941	
Truck/ Aircraft Loading Facility — Concrete runways, soil, and concrete secondary containment	NA	Spill flow (8,000 gal. — capacity of fuel tank truck) will be south into the two lagoon systems bordering Old State Road 941, although it is unlikely a spill at this facility would travel into the East Lagoon.	
CONTAINMENT/DRAINAGE SYSTEM CAPABILITY TO CONTAIN SPILL	Fuel farm containment system can contain spills as required. 110% of capacity. A drainage ditch resides on the outside of the berm, surrounding both the north and west side of the tanks. A small containment pond resides to the SW of the tanks. Other operations are not contained at all times, such as aircraft refueling. Spills from these types of operations will not be easily contained.		
PROCEDURES TO TAKE IF SPILL CANNOT BE CONTAINED IN CONTAINMENT/DRAINAGE SYSTEM	Stop the spill and isolate the spread of product by blocking drainage ditches and storm water drains. Position containment and sorbent booms along lagoon shoreline and at the four (4) identified culverts on ERAP MAPS 9-13. Implement procedures identified in the Quick Reference Guide. See Red Plan.		
OTHER CONTAINMENT AND CLEANUP MATERIALS	CAPACITY (gal)	LOCATION/POC/TELEPHONE	SITUATIONS FOR EMPLOYMENT AND PROCEDURES
Boom, Sorbents Temporary Storage	OSRO Level E Capability	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408 (800) 852-8878	Activate BOA via NOSC

TABLE FRP 6.16: CONTAINMENT AND DRAINAGE PLAN FOR SPILLS (Cont.)			
ALL OPERATIONS — BOCA CHICA		BOCA CHICA CHANNEL	
CONTAINMENT/DRAINAGE TYPE AND CONSTRUCTION MATERIALS	CAPACITY (gal)	CONTAINMENT/DRAINAGE DISCHARGE ROUTE	
Truck/ Aircraft Loading Facility — Concrete runways, soil, and concrete secondary containment	NA	Spill flow (8,000 gal. — capacity of fuel tank truck) may travel west towards Boca Chica Channel via storm water ditches and lagoon systems within NAS property.	
CONTAINMENT/DRAINAGE SYSTEM CAPABILITY TO CONTAIN SPILL	No capability		
PROCEDURES TO TAKE IF SPILL CANNOT BE CONTAINED IN CONTAINMENT/DRAINAGE SYSTEM	Stop the spill and isolate the spread of product by blocking drainage ditches and storm water drains. Position containment and sorbent booms along lagoon shoreline. Implement procedures identified in the Quick Reference Guide. See Red Plan.		
OTHER CONTAINMENT/ CLEANUP MATERIALS AND QUANTITIES	CAPACITY (gal)	LOCATION/POC/TELEPHONE	SITUATIONS FOR EMPLOYMENT AND PROCEDURES
Boom, sorbents Temporary storage	OSRO Level E Capability	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408 (800) 852-8878	Activate BOA via NOSC

TABLE FRP 6.16: CONTAINMENT AND DRAINAGE PLAN FOR SPILLS (Cont.)			
ALL OPERATIONS — BOCA CHICA		GEIGER CREEK BASIN	
CONTAINMENT/DRAINAGE TYPE AND CONSTRUCTION MATERIALS	CAPACITY (gal)	CONTAINMENT/DRAINAGE DISCHARGE ROUTE	
VARIOUS FROM CONCRETE CONTAINMENT TO EARTHEN BURNS TO UNCONTAINED TANKS.	N/A	Flow is eastward into Geiger Creek. Geiger Creek flows south into the Atlantic Ocean and the Intercoastal Waterway.	
CONTAINMENT/DRAINAGE SYSTEM CAPABILITY TO CONTAIN SPILL	No capabilities.		
PROCEDURES TO TAKE IF SPILL CANNOT BE CONTAINED IN CONTAINMENT/DRAINAGE SYSTEM	Stop the spill and isolate the spread of product by blocking drainage ditches, storm water drains. Position containment and sorbent booms along lagoon shoreline and at the as shown on ERAP MAP 4. Implement procedures identified in the Quick Reference Guide. See Red Plan.		
OTHER CONTAINMENT/ CLEANUP MATERIALS AND QUANTITIES	CAPACITY (gal)	LOCATION/POC/TELEPHONE	SITUATIONS FOR EMPLOYMENT AND PROCEDURES
BOOM, SORBENTS TEMPORARY STORAGE	OSRO Level E Capability	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408 (800) 852-8878	Activate BOA via NOSC

TABLE FRP 6.16: CONTAINMENT AND DRAINAGE PLAN FOR SPILLS (Cont.)

TRUMAN ANNEX		GULF OF MEXICO	
CONTAINMENT/DRAINAGE TYPE AND CONSTRUCTION MATERIALS	CAPACITY (gal)	CONTAINMENT/DRAINAGE DISCHARGE ROUTE	
CONTAINMENT IN THE BASIN IS ACCOMPLISHED BY UTILIZING TYPE II CONTAINMENT BOOM POSITIONED AT THE MOUTH OF THE BASIN AND PRE-BOOMING ALL VESSELS BEING FUELED.	12,000-FT CONTAINMENT BOOM	Out of the basin and into the Gulf of Mexico.	
CONTAINMENT/DRAINAGE SYSTEM CAPABILITY TO CONTAIN SPILL	Pre-booming of vessels and secondary boom placement can maintain a high degree of product containment within the basin.		
PROCEDURES TO TAKE IF SPILL CANNOT BE CONTAINED IN CONTAINMENT/DRAINAGE SYSTEM	Position boom as indicated in the COTP ACP Miami. See ACP map 39 and 40. Implement procedures identified in the Quick Reference Guide. See Red Plan.		
OTHER CONTAINMENT/ CLEANUP MATERIALS AND QUANTITIES	CAPACITY (gal)	LOCATION/POC/TELEPHONE	SITUATIONS FOR EMPLOYMENT AND PROCEDURES
BOOM, SORBENTS TEMPORARY STORAGE	OSRO Level E Capability	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408 (800) 852-8878	Activate BOA via NOSC

TABLE FRP 6.16: CONTAINMENT AND DRAINAGE PLAN FOR SPILLS (Cont.)

TRUMBO POINT		FLEMING CUT AND GULF OF MEXICO	
CONTAINMENT/DRAINAGE TYPE AND CONSTRUCTION MATERIALS	CAPACITY (gal)	CONTAINMENT/DRAINAGE DISCHARGE ROUTE	
CONTAINMENT IN THE BASIN IS ACCOMPLISHED BY UTILIZING TYPE II CONTAINMENT BOOM POSITIONED AT THE MOUTH OF THE BASIN AND PRE-BOOMING ALL VESSELS BEING FUELED.	12,000-FT CONTAINMENT BOOM	Out of the basin and into the Gulf of Mexico.	
CONTAINMENT/DRAINAGE SYSTEM CAPABILITY TO CONTAIN SPILL	Pre-booming of vessels and secondary boom placement can maintain a high degree of product containment within the basin.		
PROCEDURES TO TAKE IF SPILL CANNOT BE CONTAINED IN CONTAINMENT/DRAINAGE SYSTEM	Position boom as indicated in the COTP ACP Miami. See ACP map 39 AND 40. Implement procedures identified in the Quick Reference Guide. See Red Plan.		
OTHER CONTAINMENT/ CLEANUP MATERIALS AND QUANTITIES	CAPACITY (gal)	LOCATION/POC/TELEPHONE	SITUATIONS FOR EMPLOYMENT AND PROCEDURES
Boom, Sorbents Temporary Storage	OSRO Level E Capability	Southern Waste Services, 1619 Moylan Road, Panama City Beach, FL 33408 (800) 852-8878	Activate BOA via NOSC

TAB 7: SELF-INSPECTION

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7.1 SELF-INSPECTION, RESPONSE EQUIPMENTFRP: 7-3
TABLE FRP 7.1 RESPONSE EQUIPMENT INSPECTION CHECKLIST AND LOG ...FRP: 7-3

CHECKLISTS

- SECONDARY CONTAINMENT DRAINAGE LOG
- OIL/WATER SEPARATOR (OWS) INSPECTION CHECKLIST
- ANCILLARY AST, GENERATOR AND TRANSFORMER INSPECTION CHECKLIST
- PIPING INSPECTION CHECKLIST
- CATHODIC PROTECTION SYSTEM INSPECTION CHECKLIST
- BULK STORAGE TANK ROUTINE IN-SERVICE INSPECTION CHECKLIST
- TRUCK LOADING STATION INSPECTION CHECKLIST

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7.0 INTRODUCTION

Following are various self-inspection checklists for inspecting response equipment and facility operations.

7.1 SELF-INSPECTION, RESPONSE EQUIPMENT

TABLE FRP 7.1: RESPONSE EQUIPMENT INSPECTION CHECKLIST AND LOG	
INVENTORY ITEM	
Quantity On Hand:	
Shortfall from Plan Quantity:	~ YES ~ NO
Storage Location:	
Accessibility: [Time to Access and Respond]	
Operational Status:	~ Operational ~ Non-Operational
Condition:	~ Good ~ Fair ~ Poor
Use Status:	Date of Last Use: Date of Last Test: Test Frequency:
Required Inspection Frequency:	
Shelf Life:	Present age: Expected Replacement Date: Date Fuel Last Changes:
Comments:	
Inspector:	Name: Rank/Rate/Code
Signature:	Date of Inspection:

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OIL/WATER SEPARATOR (OWS) INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of OWS. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112

Frequency: Weekly.

Site/Date: _____

Inspector: _____

	SAT	UNSAT	NA	CAR	Comments
DETECTION					
Presence of Free Product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Presence of Sheen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Presence of Fuel Odor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Presence of Down Stream					
Oil Source	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
STRUCTURAL					
OWS Functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gate and Valve Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Wall/Separator Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Shoreline/OWS Contact and Seal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
FLOW					
OWS Free of Blockage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Up/Down Stream Free of Blockage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

- SAT — satisfactory
- UNSAT — unsatisfactory
- NA — not applicable
- CAR — corrective action required

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ANCILLARY AST, GENERATOR, AND TRANSFORMER INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of ancillary ASTs, diesel powered electrical generators and pad-mounted electrical transformers. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112 and FL DEP 62-761

Frequency: Weekly (FL DEP cites frequency to be no more than every 35 days for ASTs > 550 gal.)

Site/Date: _____

Inspector: _____

	Yes	No	NA	CAR	Comments
STRUCTURAL INTEGRITY					
Surface free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Valves and gaskets free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sound (no rusting, corrosion, pitting, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bolts, rivets, welds, and seams intact/sound?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Foundation intact/sound?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Level gauges and alarms working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Vents unobstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
ATTACHED PIPING					
Surface free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Valves and fittings free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Piping adequately supported?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pipes and supports free of corrosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Buried pipes exposed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Out-of-service pipes capped?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Signs/barriers present near aboveground piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Localized vegetation free of distress?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SECONDARY CONTAINMENT					
Drainage valves closed and locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Drainage valves free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Containment area free of drain(able) standing water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Standing water free of product/sheen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Debris absent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Containment structure intact/sound?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SECURITY					
Unit locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gates/fences intact/sound?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gates/fences locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Starter controls locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lighting adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

NA — not applicable
 CAR — corrective action required

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PIPING INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of product piping. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: FL DEP 62-761

Frequency: Monthly

Site/Date: _____

Inspector: _____

	SAT	UNSAT	NA	CAR	Comments
LEAKS					
Piping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Expansion Joints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clamps and Supports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Valves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
MISALIGNMENT					
Piping Misalignment/Restricted Movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Expansion Joint Misalignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
VIBRATION					
Excessive Overhung Weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inadequate Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Thin, Small-Bore, or Alloy Piping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Threaded Connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Loose Supports Causing Metal Wear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SUPPORTS					
Shoes Off Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hanger Distortion or Breakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottomed-Out Springs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excessive Pipe Sag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brace Distortion/Breakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Loose Brackets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slide Plates/Rollers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Counter Balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
CORROSION					
Piping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Supports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Insulation Interfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Biological Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
MISCELLANEOUS					
Bolts and Nuts Present/Tight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pipe and Valve Labeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Grounding/Anode Straps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

- SAT — satisfactory
- UNSAT — unsatisfactory
- NA — not applicable
- CAR — corrective action required

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CATHODIC PROTECTION SYSTEM INSPECTION CHECKLIST

Instructions: Complete routine external operational inspection of cathodic protection (CP) system. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: FL DEP 62-761

Frequency: Every Two Months (for impressed current systems).

Site/Date: _____ Inspector: _____

	SAT	UNSAT	NA	CAR	Comments
BULK TANKS AND PIPING					
Test Stations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Electrical Panel Box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rectifier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
CP Cable (condition and connections)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
FUEL PIER					
CP Cable at Pilings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
CP Cable under Pier (suspended)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Electrical Panel Box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rectifier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
OPERATIONAL					
Output Normal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Power Consumption Normal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Satisfactory Electrical State	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

- SAT — satisfactory
- UNSAT — unsatisfactory
- NA — not applicable
- CAR — corrective action required

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BULK STORAGE TANK ROUTINE IN-SERVICE INSPECTION CHECKLIST

Instructions: Complete routine external in-service inspection of bulk storage tanks. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: FL DEP 62-761

Frequency: Monthly¹

Site/Date: _____ Inspector: _____

	SAT	UNSAT	NA	CAR	Comments
FOUNDATION					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Intact/Sound	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SHELL					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Distortion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pitting and Corrosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bottom/Foundation Seal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
ROOF					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pitting and Corrosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Seal Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
MANWAYS, MANIFOLDS, AND NOZZLES					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pitting and Corrosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
PIPING					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pitting and Corrosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SECONDARY CONTAINMENT					
Free of Storm Water ^{2,3}	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Free of Debris and Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cracks, Holes, or Other Breaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Drain Valve Closed and Locked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Drain Valve Functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
MISCELLANEOUS					
Grounding/Anode Straps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
High Level Alarms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Remote/Side Gauges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

1 — not to exceed 35 days between inspections
 SAT — satisfactory

NA — not applicable
 UNSAT — unsatisfactory

- 2 — storm water is to be drained within 7 days of rain event CAR — corrective action required
- 3 — storm water must be treated before discharge if sheen present

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TRUCK LOADING STATION INSPECTION CHECKLIST

Instructions: Complete routine external visual inspection of truck loading stations. Notify Supervisor and Environmental Coordinator immediately if any significant deficiencies are identified.

Regulatory Driver: 40 CFR 112 and FL DEP 62-761

Frequency: Weekly

Site/Date: _____ Inspector: _____

	SAT	UNSAT	NA	CAR	Comments
HOSES, PIPES, AND VALVES					
Leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clamps and Supports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
STRUCTURE					
Bolts, Clamps, and Supports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Roofing and Ladders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
GENERAL					
Electrical Ground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Portable Equipment Stowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secondary Containment Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Instruction/Warning Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Traffic Control Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dispenser Labeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Security Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
CONTROL DEVICES					
Early Departure Warning Device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Starter Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Scully System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dead-Man Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pumps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
SECONDARY CONTAINMENT					
Standing Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Valves Closed and Locked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Oil Stains/Sheen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Notes:

- SAT — satisfactory
- UNSAT — unsatisfactory
- NA — not applicable
- CAR — corrective action required

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BASIC OPA-90 Training	ASSIGNED	RANK	8 Hour (SMT)	Worse Case Drill Triennial	32 Hour HAZWOPER	8 Hour HAZWOPER (refresher)	40 Hour FRT	8 Hour HAZWOPER (refresher)	32 Hour HAZWOPER	ICS 100,200,300
CDP# Identifier			#01C4	#00X3	#01WC	#01UX				
Dates of Training FY-07			12-Feb-07	13-Feb-07	17-19Apr 07	20-Apr-07	14-18 May 07	18-Jun-07	19-22 Jun 07	25-27 Jun 07
Training By:			NAVOSH	NAVOSH	NAVOSH	NAVOSH	NAVOSH	CNRSE-Lee	CNRSE-Lee	CNRSE-Lee
PORT OPS										
Battles, Robert	PORT OPS	E-5		070213			070518	070618		
Bowers, Craig	PORT OPS	E-4					070518	070618		
Dickinson, John	PORT OPS	GS12	070212	070213			070518	070618		
Malcolm, David	PORT OPS	E-6		070213			070518	070618		
Sweeney, Adam	PORT OPS	E-6		070213			070518			
Mozer, Jason	PORT OPS	E-6		070213			070518			
Thorpe, Chris	PORT OPS	E-4		070213			070518			
Tucker, Charles	PORT OPS	E-6					070518	070618		
Stephenson, Sidacious	PORT OPS	E-5		070213			070518	070618		
Kolarov, Tiffany	PORT OPS	E-5		070213			070518	070618		
Cich, James	PORT OPS	E-7					070518	070618		
SEAWARD SERVICES										
Boyd, Patricia	SEAWARD	CIV					070518	070618		
Clem, Michael	SEAWARD	CIV					070518	070618		
Denny, Tim	SEAWARD	CIV	070212	070213			070518	070618		
DiPaolo, Peter	SEAWARD	CIV	070212	070213			070518	070618		
Dober, Aaron	SEAWARD	CIV					070518	070618		
Dritsas, Michael	SEAWARD	CIV					070518	070618		
Farmer, Ed	SEAWARD	CIV					070518	070618		
Ford, Rick	SEAWARD	CIV	070212	070213			070518	070618		
Hodgman, Greg	SEAWARD	CIV					070518	070618		
Leonard, William	SEAWARD	CIV					070518	070618		
Lopez, Jose	SEAWARD	CIV					070518	070618		
Lot, Mario	SEAWARD	CIV					070518	070618		
Mendez, Antonio	SEAWARD	CIV					070518	070618		
Philips-Ford, Greta	SEAWARD	CIV					070518	070618		
Pritchard, Nancy	SEAWARD	CIV					070518	070618		
Robitalle, Marc	SEAWARD	CIV					070518	070618		
Schiller, Stephen	SEAWARD	CIV	070212	070213			070518	070618		
Sykora, Steven	SEAWARD	CIV					070518	070618		
Thompson, Brent	SEAWARD	CIV	070212	070213			070518	070618		
Wilhelm, Garry	SEAWARD	CIV					07/05/18		070618	

BASIC OPA-90 Training	ASSIGNED	RANK	8 Hour (SMT)	Worse Case Drill Triennial	32 Hour HAZWOPER	8 Hour HAZWOPER (refresher)	40 Hour FRT	8 Hour HAZWOPER (refresher)	32 Hour HAZWOPER	ICS 100,200,300
CDP# Identifier			#01C4	#00X3	#01WC	#01UX				
Dates of Training FY-07			12-Feb-07	13-Feb-07	17-19Apr 07	20-Apr-07	14-18 May 07	18-Jun-07	19-22 Jun 07	25-27 Jun 07
Training By:			NAVOSH	NAVOSH	NAVOSH	NAVOSH	NAVOSH	CNRSE-Lee	CNRSE-Lee	CNRSE-Lee
COMMAND										
Capt Brown	CO	0-6								
CDR Liske	XO	0-5								
Demes, Ronald	BUS/MAN	CIV	070212	070213		070420	070518			
McBride, James	EOC Man.	CIV								
Public Affairs Officer (PAO)- J.Brooks	PAO	CIV	070212	070213						
Supply Officer (SUPPO)- M. Hettler	SUPPO	0-5	070212	070213						
Operations Officer (OPSO)	OPSO	0-5								
Legal Judge Advocate (JA)	JA	0-3								
NAVOSH										
Cook, Ron	NAVOSH	CIV	070212	070213		070420				
Donahue, Ed	NAVOSH	CIV	070212	070213		070420				
Hayes, Glenn	NAVOSH	CIV				070420				
Campbell, Julie	NAVOSH	CIV	070212	070213		070420				
Bernhard, Rosita	NAVOSH	CIV				070420				
ENVIROMENTAL										
Barham, Edward	ENV	CIV	070212	070213		070420	070518			
Courtright, Robert	ENV	CIV	070212	070213		070420	070518			
McNeill, Patsy	ENV	CIV	070212	070213				070618		
Wallace, Guillermo	ENV	CIV						070618		
Gaetner, Eric	ENV	CIV				070420				
Stanley, Helen	ENV	CIV				070420				
Kenny, George	ENV	CIV	070212	070213			070518		070619	
Veliz, Frankie	ENV	CIV							070619	
Cuesta, Mickey	ENV	CIV							070619	

BASIC OPA-90 Training	ASSIGNED	RANK	8 Hour (SMT)	Worse Case Drill Triennial	32 Hour HAZWOPER	8 Hour HAZWOPER (refresher)	40 Hour FRT	8 Hour HAZWOPER (refresher)	32 Hour HAZWOPER	ICS 100,200,300
CDP# Identifier			#01C4	#00X3	#01WC	#01UX				
Dates of Training FY-07			12-Feb-07	13-Feb-07	17-19Apr 07	20-Apr-07	14-18 May 07	18-Jun-07	19-22 Jun 07	25-27 Jun 07
Training By:			NAVOSH	NAVOSH	NAVOSH	NAVOSH	NAVOSH	CNRSE-Lee	CNRSE-Lee	CNRSE-Lee
PWC										
Williams, Larry Sr.	PWC	CIV				070420				
Shaw, Charles	PWC	CIV				070420				
Callahan, Kevin	PWC	CIV				070420				
Linville, David	PWC	CIV				070420				
Mitzkewich, Keith	PWC	CIV	070212							
T-Line & Flt Liaison										
Preston,	T-Line	ABEC				070420				
Nelson	T-Line	ABH2				070420				
Hulse	Deployed	ABH2								
Salvador	T-Line	ABH2				070420				
Cintron	Deployed	ABE2								
Weaver	Deployed	ABH2								
JeanLouis	Deployed	ABH2								
Elijaiek	T-Line	ABH2				070420				
Renner	T-Line	ABH2				070420				
Escobar	Flt Liaison	ABH1				070420				
Vargas	Flt Liaison	ABH2				070420				
MWR										
Adkins, Billy	BC Marian	Manager				070420	070518			
Himes, Michael - CPO	CPO	LCPO				070420	070518			
	Sigsbee Marin									
	Sigsbee Marin									
KW PIPELINE										
Maly, Victor	KW PIPELINE							040621		

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9.0 SECURITY

TABLE FRP 9.1: SECURITY AT: BULK FUEL STORAGE, TRANSFER AND OIL STORAGE FACILITIES					
SECURITY MEASURES	LOCATION/DESCRIPTION				
BASE FENCING (Extent, type, number/locations of gate)	Chain-link security perimeter fencing, security guards, and controlled entrance gates secure the base and associated facilities.				
STORAGE FACILITY FENCING (Extent, type, number/locations of gate)	Internal security fencing provides additional security for day tanks with locked gates.				
BASE SECURITY PATROLS (frequency of rounds, coverage, duties)	There are 24-hour base security patrols. All entrances to the base are either locked or manned by base security personnel since only authorized personnel or visitors can enter the base.				
SECURITY AT DAY TANKS (hours, posts, rounds, duties)	The fuels foreman and activity personnel provide tank security by performing required inspection and locking of valves and transfer equipment. The fuel transfer system is operated and monitored by Pollution Control Equipment (PCE) automated transfer system. As a safety precaution key transfer valves are manually operated. The combination of PCE and manually operated valving makes unscheduled discharge unlikely. Under non-operational conditions all valves are in the closed position. NOTE: Valve position is visually verified at the end of each activity.				
EMERGENCY CUT-OFF LOCATIONS (Valves and pumps)	<table border="1"> <tr> <td>1. Facility Pumping Stations</td> <td rowspan="3">Enclosed within security fencing. Pumping operations can be shutoff by emergency cut-off switch at pumping station or point of transfer.</td> </tr> <tr> <td>2. Truck Transfer Rack</td> </tr> <tr> <td>3. Petroleum Tanker Pier</td> </tr> </table>	1. Facility Pumping Stations	Enclosed within security fencing. Pumping operations can be shutoff by emergency cut-off switch at pumping station or point of transfer.	2. Truck Transfer Rack	3. Petroleum Tanker Pier
1. Facility Pumping Stations	Enclosed within security fencing. Pumping operations can be shutoff by emergency cut-off switch at pumping station or point of transfer.				
2. Truck Transfer Rack					
3. Petroleum Tanker Pier					
LIGHTING (type, coverage)	Adequate lighting is available throughout the facility.				
VALVE AND PUMP LOCKS	Valves are not locked but are secured by perimeter fencing and monitored by PCE. Valves in closed position when not in use.				
PIPELINE CONNECTIONS (Capping of transfer points)	Pipelines are secured by perimeter fencing and monitored by PCE.				

TABLE FRP 9.2: SECURITY AT: OIL STORAGE/TRANSFER, DAY TANKS		
SECURITY MEASURES		LOCATION/DESCRIPTION
BASE FENCING		Chain-link security perimeter fencing, security guards, and controlled entrance gates secure the base and associated facilities.
STORAGE FACILITY FENCING		Internal security fencing provides additional security for day tanks with locked gates.
BASE SECURITY PATROLS		There are 24-hour base security patrols. All entrances to the base are either locked or manned by base security personnel since only authorized personnel or visitors can enter the base.
SECURITY AT DAY TANKS		Activity fuel supply officers and activity personnel responsible for the storage and handling of the activity fuel provide security for fuel facilities by performing required inspections and locking valves and transfer equipment.
EMERGENCY CUT-OFF LOCATIONS	Flow Control Valves, Bulk Storage Tanks, manifolds	Fuel supply officers and activity personnel storing and handling fuel are responsible for securing. Key West Pipeline maintains emergency shut-off control for the pipeline servicing the Bulk Storage Tanks.
LIGHTING		There is adequate lighting for security purposes throughout the base.
VALVE AND PUMP LOCKS		Valves and pump locks are checked daily by fuel supply officers and activity personnel.
PIPELINE CONNECTIONS		Fuel supply officers and activity personnel storing and handling fuel are responsible for securing.
OTHER		
ADDITIONAL COMMENTS		

TAB 10: COMMUNICATIONS

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10.0 TELECOMMUNICATIONS: OVERVIEW

In the event of an oil or hazardous substance spill, the initial response activities will utilize telecommunications systems that are currently in place at NAS Key West.. If a sustained spill response is required, additional telecommunication systems will need to be mobilized to direct and coordinate cleanup personnel on any terrain effected.

NAS Key West utilizes a Nextel network for telecommunication purposes. The cellular Nextel telephones also function as two-way radios. The master Nextel list is maintained by the Public Works Environmental Department: Below are key initial contacts as noted within the Red Plan and ERAP.

TABLE FRP 10.1: ONSITE INVENTORY: COMMUNICATIONS EQUIPMENT (IN USE)						
TYPE	ASSIGNED TO (# Available)	CALL SIGN OR PHONE NUMBER	PRIMARY NETWORK/ FREQUENCY	BRAND AND MODEL (year, if available)	CHARGER OR STORAGE LOCATION	OP STATUS
HANDHELD RADIOS	Fire Department (29)	To be assigned at time of use	140.025	Motorola HT-1000	(20) Building A-132 (4) Building C-5 (5) Building 284	Good
	Security (27)	To be assigned at time of use	139.525	Motorola HT-1000	Building A-314	Good
	Fuels (1)	To be assigned at time of use	152.915 MHZ	Motorola HT 600	Building A-937	Good
	Oil Spill Response (10)	OSR	VHF 66	Various	Building 284 Truman Annex	Good
FIXED IN OIL SPILL RESPONSE VESSELS	Oil Spill Response (7)	OSR 1 - 7	VHF 66	Various	Truman Annex	Good
CAR/TRUCK RADIOS	Public Work (2)	To be assigned at time of use	140.825	Unknown	Building A-29	Good
	Fire Department (12)	To be assigned at time of use	(6) Structural 140.025 (6) Air Field 140.1	MITREK	Building A-132	Good
	Security (12)	To be assigned at time of use	139.525	MAXTRAC 300	Building A-314	Good
	Vacuum Trucks	Vac Truck	VHF 66	Motorola	Truman Annex	Good
BASE STATION RADIOS	Fire Department (4)	To be assigned at time of use	(3) Structural 140.025 (1) Air Field 140.1	Conselette	(2) Building A-132 (1) C-5 (1) Building C-5	Good
	Security (3)	To be assigned at time of use	139.525	Desktrac Conselette Spectra	Truman Pier Dispatch Office	Good
	Command Center Trailer	OSR Command	VHF 16 & 66	Motorola	Truman Annex	Good
PHONES	Quarterdeck	(305) 293-2268	—	—	—	—
POINT OF CONTACT: Ground Electronics DAY PHONE: (305) 293-2258 24-HOUR PHONE: (305) 293-4316 (#070)						
WARNING: ONLY "INTRINSICALLY SAFE" HANDHELD RADIOS AND RECHARGEABLE BATTERY PACKS SHOULD BE USED AT OIL SPILLS. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe." This inventory table functions both as an ONSITE Inventory and as part of the Communications Plan. "Intrinsically safe" Motorola handheld radios and battery packs are marked with a green dot on the back, at the junction of the radio body and its battery pack; if BOTH dots are not present, the radio is not "intrinsically safe."						

TABLE FRP 10.1: ONSITE INVENTORY: COMMUNICATIONS EQUIPMENT (IN USE) CONT'D		
TYPE	ASSIGNED TO	CALL SIGN OR PHONE NUMBER
NEXTEL	FIRE DISPATCH	(305) 293-3333
	FIRE CHIEF	(305) 797-4401
	XO	(305) 797-4349
	SECURITY MAINTENANCE	(305) 797-0988
	SAFETY	(305) 797-4411
	OIL SPILL CHIEF	(305) 797-4445
	ENVIRONMENTAL PROTECTION SPECIALIST #1	(305) 797-4455
	ENVIRONMENTAL PROTECTION SPECIALIST #4	(305) 797-4461
	HAZWASTE MANAGER	(305) 797-4454
	WATCH COMMANDER	(305) 797-4423
	PWO	(305) 797-4355
POINT OF CONTACT: Ground Electronics DAY PHONE: (305) 293-2258 24-HOUR PHONE: (305) 293-4316 (#070)		
WARNING: ONLY "INTRINSICALLY SAFE" HANDHELD RADIOS AND RECHARGEABLE BATTERY PACKS SHOULD BE USED AT OIL SPILLS. A radio is "intrinsically safe" only if BOTH the radio and battery pack are "intrinsically safe." This inventory table functions both as an ONSITE Inventory and as part of the Communications Plan. "Intrinsically safe" Motorola handheld radios and battery packs are marked with a green dot on the back, at the junction of the radio body and its battery pack; if BOTH dots are not present, the radio is not "intrinsically safe."		

10.1 TELECOMMUNICATIONS: SPILL RESPONSE

Initially, response personnel will communicate through normal telecommunication channels. If spill response activities reach a point where communication mechanisms are inadequate, the Communications Unit Leader will be responsible for establishing an expanded ICS Telecommunications System to support the ICS response organization.

The Facility Incident Commander (FIC) will establish an operations center. The Communications Unit Leader and staff will report to the Logistics Section Chief in the operations center to carry out pre-assigned duties. The staff could be made up of Navy and spill response contractor employees trained and certified to fill assigned positions.

As part of the establishment of the expanded ICS telecommunications system, the Communications Unit Leader will be responsible for developing plans for the effective use of incident telecommunications equipment, supervision of the incident telecommunications center, distribution of telecommunications equipment, and maintenance of the equipment. The Communications Unit Leader will coordinate the use of all communication facilities, activities, and radio frequency usage through the use of a regularly published Incident Radio Telecommunications Plan (see Figure 1).

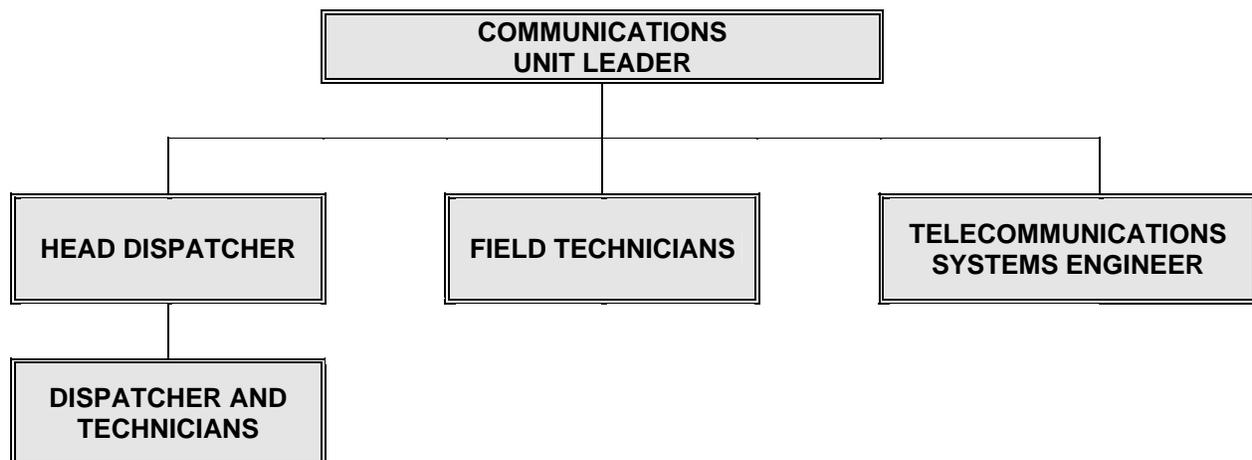
Activity Emergency Operations Center (AEOC)

The Facility Incident Commander will be responsible for activating the AEOC. The AEOC will be supported by radio, telephone, data, and fax communications systems. The Communications Unit Leader will keep the FIC updated as to communications capabilities and limitations.

10.2 TELECOMMUNICATIONS ORGANIZATION:

Response telecommunications will be organized and managed under the Incident Command System. The telecommunications unit is supervised by the Communications Unit Leader who reports to the Logistics Section Chief. The size and nature of the staff reporting to the Communications Unit Leader will depend on the extent of the response required. A typical telecommunications organizations for a moderate spill incident is shown in Figure 1.

FIGURE 1
Communications Organization



Note: One individual may fill more than one of these positions.

Duties

The **Communications Unit Leader** will set up and operate the needed telecommunications systems, order supplemental communications equipment, verify that extended telecommunications equipment has been installed for optimum coverage, activate telephone systems and data networks, and develop the Incident Radio Communications Plans for each operational period.

Under the direction of the Communications Unit Leader, the **Head Dispatcher** will supervise the telecommunications center, set shift hours, verify that dispatchers have needed materials, and prepare daily unit logs for documentation.

Spill Response Dispatchers receive and transmit radio and telephone message traffic in support of incident personnel and agencies external to the incident, provide dispatch services and maintain 24-hour radio logs for documentation. The message center dispatcher receives, records, and routes information concerning critical oil spill tactical activities. Runners may distribute hard copy materials to ICS staff members. There will typically be an operations and a logistics dispatcher on duty. Radio operators in the field will communicate information from specific sites or operations directly to the AEOC via the dispatch center.

The telecommunications **Technical Supervisor** oversees the installation of all communication systems required by the Communications Unit leader. Telecommunication technicians will verify that incident telecommunication radio and telephone systems are operable (install repeaters, antennas, receivers, etc.), maintain an inventory of telecommunication equipment, distribute and recover equipment and resources, and service communications equipment.

The telecommunications **System Engineer** is responsible for planning the technical aspects of the field support telecommunication systems. This engineer also serves as the alternate communications unit leader.

Training and Certification

Persons assigned to telecommunication roles within the ICS response organization will be given ICS training with the objective of certifying them for their preassigned telecommunications duties. Telecommunication positions within the ICS structure will usually be filled by personnel with professional technical communications experience. This core staff will be supplemented by contractor personnel as needed.

Incident Radio Telecommunications Plan

Communications during a spill response will be managed through the use of a common telecommunications plan. An example of an Incident Radio Telecommunications Plan can be found in Table FRP 10.2. Before each daily briefing, the Communications Unit Leader will prepare this plan, which will be reviewed and distributed to ICS unit leaders.

Under ICS, the Communications Unit Leader assigns telecommunications according to function and to situational demands. They are typically broken into four main nets and as many subgroups as needed for expansion. Radio nets for moderate incidents will normally be organized as indicated below.

**TABLE FRP 10.2
INCIDENT COMMUNICATIONS PLAN**

Incident Name	Date Prepared	Time Prepared	Operational Period (Date/Time)
			/

Contact Information

Assignment							
Name							
Radio Channel							
Radio Frequency							
Telephone Number							
Fax Number							
Other							
Remarks							

Prepared By (Communications Unit)

Command Net

The command net is the highest priority net and almost always employs duplex VHF frequencies. This net will link together the incident commander, key staff members, section chiefs, and division and group supervisors. This net is monitored by the AEOC tactical dispatcher and is the designated incident emergency frequency.

Tactical Nets

There may be several tactical nets based on the size and nature of the spill. They may be established around agencies, departments, geographical areas, or specific functions as determined by the Communications Unit Leader and identified operational needs.

Logistical Net

The logistical net will be used for the ordering and transporting of resources and the efficient control of all support functions. It is monitored by the AEOC. It can be either duplex or simplex, VHF, or UHF, depending on terrain and usage.

All logistics communications will be conducted on dedicated logistics channels to prevent impacting operations. Logistics traffic will be routed through the logistics dispatcher in the AEOC for accountability and tracking. Early in the incident, support communication's nets will be established for logistics functions such as ground support, ordering, procurement, and supply. A general telecommunications net may be established for non-tactical communications between various elements of the ICS team.

Air Operations Net

Air Operations work under the control of the Operations Section Chief but have their own set of frequencies due to the nature of aircraft radios and the different environment. They are used for local traffic control, flight following, onsite air-to-air, and air-to-ground telecommunications. This net may be monitored by the AEOC.

Air operations are used for surveillance, tactical operations, and logistics. Communications are required for flight following and air traffic control, and for transmittal of spill-related information.

Aerial surveillance is one of the key tools used to track spill location and to plan response activities. Surveillance operations will be done primarily by helicopter but may also utilize fixed wing aircraft. Communications between the surveillance aircraft and AEOC and ground crews will be by VHF radio usually on VHF Marine frequencies. Communications between aircraft and response vehicles and vessels will be by VHF radio.

Flight following position reports would be relayed every 15 minutes to Air Traffic Control for the full duration of all flights. This will be accomplished on aircraft radio dedicated to emergency spill operations.

If operations require a **tactical flight**, such as an ADDSPAC mission, normal flight-following rules are to be followed. If warranted, a Tactical Air Coordinator will control on-scene aircraft during response operations via predesignated air-to-air frequencies. All tactical aircraft will be made aware of operational frequencies before they enter the restricted air space that may exist around a spill site.

The aircraft in the area will contact the air operations controller on the aviation contact frequency and then announce its location, altitude and intentions to other aircraft on the air-to-air frequency.

Logistical flights for air transport of personnel and equipment will be made in accordance with flight following rules. Pilots will make themselves aware of current operating air-to-air and air-to-ground frequencies before entering restricted air space over the spill.

All logistical flights will be scheduled through the Air Branch Director located at the AEOC. Before any logistical flight, the pilots will be briefed as to the nature of the mission, coordinates, and current traffic control, flight following, air-to-air and air-to-ground frequencies. Upon arriving in the area the pilot will announce his location, altitude and intentions on the on-scene air-to-air aircraft frequency and monitor this frequency for other air traffic. Upon arriving at his destination, the pilot will call the local controller on the established frequency. When departing the area, the pilot will announce his intentions for flight following and continue to monitor air-to-air frequency for local traffic.

Air Traffic Control (on-scene air traffic safety) will be maintained over a common traffic advisory frequency (CTAF). Pilots shall give periodic position reports, monitor the appropriately designated frequency for advisories and establish visual contact with and separation from other traffic. All flights shall be conducted in accordance with any NOTAM published under FAR 91.100. Operations at airports with a tower will use frequencies assigned by the FAA to that tower.

Medical Emergency

In the event of a medical emergency, initial request and response will be initiated via telephone or radio. If an airborne medivac is needed, the aircraft will use standard aircraft frequencies.

Telecommunications: Systems and Equipment

This section describes oil spill response telecommunications equipment currently in place or in stock for emergency use.

Systems traversing public facilities may be leased, full time circuits between fixed points. Others may be established as required by dialing through the Public Switched Telephone Network (PSTN). Reliance upon switched telephone telecommunications to support information transfer needs during times of emergency is not a viable practice, since there is no way to ensure that adequate circuits will be immediately available in the PSTN to support telecommunications. For this reason, DFSP NAS Key West relies heavily upon private and autovon circuits and facilities to support both the operational and contingency communications missions.

Radio Systems

Radio telecommunications are considered to be those communications involving transmissions between multiple mobile radio stations or between a radio base station and a mobile unit regardless of whether the base station is directly or remotely controlled by the dispatcher. Such facilities operate in the Maritime, Aviation, and Land Mobile services as specifically licensed by the Federal Communications Commission.

Mobile radios are simplex standard series hand-held and base station VHF units with code cards or marine VHF hand-held units supported by a base station.

Supplementary Systems

The fixed-radio telecommunication facilities are adequate to meet the message traffic needs associated with day-to-day spill prevention. A sustained response, however, would require additional radio sites. The initial requirement would arise as a result of the need to support field activities of increasing magnitude while continuing to conduct daily routine operations. Additional radio channels will therefore have to be implemented to fulfill the communication needs for expanded response crews. The requirement for additional transmission sites, especially in the early stages of a response will arise not so much from the need to increase coverage area as from the frequency allocation structure, wherein many stations transmitting simultaneously at a single location will tend to create intolerable interchannel interference. This constraint requires that any system engineered to supplement the in-place telecommunications system be extremely flexible.

To provide optimum flexibility to adapt to evolving telecommunications requirements in the event of a spill and to furnish dedicated interagency telephone communications that cannot be impacted by switched network traffic patterns, long term communications support may be accomplished using equipment from the Navy's Supervisor Salvage that is specifically designed to support spill response operations.

10.3 TELECOMMUNICATIONS: LOGISTICS

Maintenance

Field maintenance of all telecommunications equipment is routinely performed by qualified personnel. Biannual checks and quick response spot checks are also performed.

Mobilization

In the event of an oil spill, pre-positioned contingency telecommunications equipment will be located and activated on order from the ICS Communications Unit Leader.

Telecommunications: Government Agencies

In the event of a spill, government agencies at various levels will be contacted, as dictated by the nature and extent of the spill. Phone numbers for these and other agencies are listed in the *Emergency Telephone List*.

If the magnitude of the incident makes it necessary for these agencies to station personnel onsite, communications links and equipment will be provided on an as-needed basis.

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11.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

NOTE:

The safety and security of response and support personnel and others involved in an emergency response incident is the primary concern. The section on health and safety provides a general framework for the protection of oil spill response worker's health and safety as well as complying with the requirements of state and federal laws.

The information contained in the health and safety section is intended to be used as a guide by the Safety Officer for preparing and implementing worker health and safety protection measures in order to maximize safety and allow critical oil spill response activities to proceed. Specific site control and emergency response procedures will need to be developed using forms provided in this outline or other forms developed by the activity. Other procedures for activities such as confined space entry or hot work will require additional controls in order to fulfill the regulatory requirements. These and other health and safety and regulatory matters must be identified by the Safety Officer. Once identified, the Safety Officer will then need to take appropriate action to address those safety issues or regulatory requirements.

Medical Monitoring

All persons who will be exposed or will have the potential to be exposed to hazardous substances will take part in a medical monitoring program that meets the requirements of 29 CFR 1910.120(f). In general, medical monitoring will be conducted for workers as follows:

- Workers who have the potential to be exposed to hazardous substances at or above the PEL.
- Workers whose duties require them to wear a respirator for more than 30 days/year.
- Workers who are believed to have been exposed to hazardous substances or who exhibit symptoms of exposure.

Records and Reports

Both state and federal regulations require employers to prepare and maintain records of occupational injuries and illnesses.

HEALTH HAZARDS

Health hazards must be identified in the site-specific health and safety plan. The following is a list of typical hazards that should be address during an oil spill response.

Primary Chemical Hazards

The following table lists typical petroleum products and significant Hazardous Substances that are transported to and used at Navy activities.

TABLE FRP 11.1: PERMISSIBLE EXPOSURE LIMITS OF PRODUCTS STORED OR USED BY THE NAVY		
Product	TWA (Time Weighted Average)	STEL (Short-Term Exposure Limit)
JP-4 (jet fuel)	10 ppm	15 ppm
JP-5 (jet fuel)	10 ppm	15 ppm
JP-8 (jet fuel)	100 ppm	—
DFO (diesel)	500 ppm	—
MUM (unleaded gasoline)	300 ppm	500 ppm
ASA-3 (anti-static compound)	100 ppm	—
Chlorine Gas	0.5 ppm	1 ppm

The Material Safety Data Sheets (MSDSs) for diesel fuel may be found at the end of this section.

JP-4 (jet fuel)

JP-4 is a complex mixture of hydrocarbons containing benzene (up to approximately 2%). Chronic exposure to high levels of benzene has been shown to cause cancer (leukemia) in humans and to have other adverse blood effects (anemia). Benzene is considered a human carcinogen.

Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal.

JP-5 (jet fuel)

JP-5 is a mixture of light hydrocarbons and naphthalene. Naphthalene is a potential irritant to eyes, skin and lungs and may cause changes to the blood, eyes, and kidneys after prolonged or repeated exposure.

Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal.

JP-8 (jet fuel)

JP-8 is a mixture of hydrotreated light petroleum distillates, antioxidant, anti-static, corrosion inhibitor and metal deactivator. Health studies have shown that petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

Exposures to high concentrations may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Diesel Fuel

Aspiration of liquid into the lungs may cause extensive pulmonary edema (dry land drowning). Prolonged or repeated skin contact will remove skin oils leading to irritation and/or dermatitis. High vapor concentrations are irritating to the eyes and lungs, and may cause headaches, dizziness, and unconsciousness.

Gasoline (unleaded)

Gasoline is a mixture of hydrocarbons, including aliphatic hydrocarbons, aromatic hydrocarbons, a variety of branched and unsaturated hydrocarbons, and additives. Extremely high levels of exposure could produce conditions such as dizziness, coma, collapse, and death. Exposure to non-lethal doses is usually followed by complete recovery, although cases of permanent brain damage following massive exposure have been reported.

Secondary Chemical Hazard Identification

Oil and hazardous substance spill responses require the use of a wide variety of chemicals and materials which may singularly or in conjunction with the site work conditions create various hazards to site workers. Several of these hazards are identified in the following table.

Chlorine Gas

Chlorine gas is used in water purification, the manufacture of flame-retardant compounds, and meat and vegetable processing. It is a strong irritant to the mucous membranes of the eyes, nose, and throat, and to the linings of the entire respiratory tract. Excessive exposure causes severe shortness of breath, which may increase to the point of suffocation.

TABLE FRP 11.2: SECONDARY CHEMICAL HAZARDS		
HAZARD DESCRIPTION	RECOMMENDED PROTECTIVE EQUIPMENT	CONDITIONS UNDER WHICH EXPOSURE MAY OCCUR
Diesel and Gasoline Engine — Exhaust Exposure to diesel or engine exhaust may promote inhalation of hydrocarbons, carbon monoxide and particulates. Exposure may irritate eyes and mucous membranes.	Monitor CO and O ₂ levels, ventilate area, and use half-mask respirator with organic and particulate filters.	Diesel and gasoline exhaust exposure may occur in poorly ventilated areas in the vicinity of diesel equipment. It may also occur in sheltered outdoor areas on calm days or during temperature inversion conditions.
Low Oxygen Levels — Confined or restricted space atmospheres may be dangerous to life and health if O ₂ levels are below 19.5% (oxygen deficient) or greater than 25% (oxygen enriched)	Monitor O ₂ levels and ventilate area. Do not enter O ₂ deficient atmosphere without a confined space entry permit and supervision from the Safety Officer. Supplied air Personal Protective Equipment (PPE) is required. Safe O ₂ levels 19.5%-23%.	Poorly ventilated areas in the vicinity of oxygen consuming materials or equipment. This includes waste undergoing biological degradation or fuel powered equipment and confined or restricted spaces (e.g., tanks).
High Carbon Monoxide Levels — Carbon monoxide is a colorless and odorless gas, slightly less dense than air and is toxic by inhalation. Carbon monoxide is also highly flammable (Lower Explosive Limit (LEL) = 12%; Upper Explosive Limit (UEL) = 75% by volume in air)	Monitor CO, and ventilate area. Use of supplied air PPE is required. Do Not enter high CO atmosphere without a confined space entry permit and supervision from Safety Officer. Safe CO levels are less than 50 ppm TWA.	Poorly ventilated areas in the vicinity of internal combustion engines. Acetylene welding, industrial heating equipment and processes involving incomplete combustion may also create this hazard.
Other Spill Response Specialty Agents — Due to the varied nature of oil spill cleanup operations, numerous specialty chemicals in solid, liquid, and gaseous phases may be used or stored in work areas.	Obtain and review MSDSs for all products. Verify safety precautions and PPE needs. Obtain any required respirator, skin, eye, and splash protection.	Exposure to these materials in poorly ventilated areas or in open areas may occur if workers are unaware of the chemicals' toxic or physical properties.

TABLE FRP 11.2: SECONDARY CHEMICAL HAZARDS		
HAZARD DESCRIPTION	RECOMMENDED PROTECTIVE EQUIPMENT	CONDITIONS UNDER WHICH EXPOSURE MAY OCCUR
Particulates — Particulates may cause irritation to lungs, eyes, and mucous membranes. Particulates may also have toxic effects (e.g., lead, asbestos, cadmium, and silica).	Use half-mask respirator with particulate filter and appropriate cartridges. Use other PPE for eye and skin protection as needed.	Use of powdered or granular oil absorbent (vermiculite, diatomaceous earth, etc.), or other specialty products where particles become airborne and enter the breathing zone of personnel. Wind carried silts, and other dusts may also be a factor.
Biological Nutrients — Inhalation of vapors, mists, and particulates or skin contact with nutrients used for biological treatment may result in irritation to lungs, eyes, and mucous membranes. Dermal absorption is also possible.	Obtain and review MSDS for the specific product. Verify safety precautions and PPE needs. Obtain required respirator, skin, eye, and splash protection.	Use of nutrients (fertilizers) in a spill cleanup effort may create potential exposures during spray application or other distribution and mixing process.
Dispersant — Inhalation of vapors or mists or skin contact may result in irritation to lungs, eyes, and mucous membranes. Dermal absorption is also possible.	Obtain and review MSDS for specific product. Personnel involved in handling or applying dispersant will be provided specific training.	Application of dispersant during the initial spill event may expose workers to respiratory and dermal hazards.
Confined Spaces — Inadequate ventilation coupled with limited egress creates potentially hazardous situations for workers. Oxygen deficient, toxic or flammable atmospheres may exist in these areas. All OSHA procedures regarding confined space entry will be followed.	Monitor CO, O ₂ , toxic, and flammable gas levels, and ventilate area. Do not enter a confined space without a confined space entry permit and supervision from the Safety Officer. Safe O ₂ levels = 19.5% to 25%; flammable gas limits = less than 10% LEL; toxic limits = less than ½ PEL or Threshold Limit Value (TLV) which ever is the lower value.	Confined spaces may be encountered on vessels, inside tanks, inside buildings, on drill rigs, in sumps, in ditches, etc. Product vapors or other emissions resulting from response operations may intensify this hazard.
Flammable Atmosphere — A flammable gas, vapor, mist, or dust when mixed with air may create a flammable or explosive condition. Volatile vapors or gases will generally be of a sufficient quantity during the initial few hours of a spill to cause a flammable atmosphere.	Conduct flammable gas and oxygen monitoring prior to starting any work. Purge or inert atmospheres when possible. Obtain hot work permits prior to starting any cutting or welding. Safe flammable limits are less than 10% of the Lower Explosive Limit.	Flammable conditions may exist during the initial phase of a spill or at any time in areas where flammable dusts or vapors may concentrate. Holds of vessels and fueling areas are prime locations to find flammable atmospheres.

Subjecting response personnel to the hazards identified above can be avoided through the use of the proper personal protective equipment (PPE) and through proper monitoring and supervision by health and safety personnel. The following paragraphs briefly discuss proper procedures associated with some of the secondary hazards.

Hazardous Conditions

The hazards associated with the contaminants listed in above table are best controlled through early detection, use of PPE, implementation of engineering controls, or by avoiding the hazard. Early detection can be accomplished by using common sense and understanding the Health and Safety Plan.

Confined Space Entry

Entry into confined spaces (spaces with restricted egress and potentially hazardous atmospheres) will be conducted under the direct supervision of the Safety Officer and through the use of a confined space entry permit. Confined spaces may be oxygen deficient or have flammable or toxic atmospheres. Confined space entry will be permitted only if the parameters listed in the above table are within acceptable limits.

Physical Hazards

Physical hazards associated with oil spill cleanup operations are varied and the associated hazards depend upon the site-specific conditions, cleanup operations, and the type of equipment being used. Severe environmental and weather conditions, complex transportation and logistical requirements, long work hours, and intensive labor needs contribute to the high susceptibility of oil spill workers to physical hazards. The following table summarizes some of the physical hazards associated with spill cleanup operations.

TABLE FRP 11.3: GENERAL PHYSICAL HAZARDS		
Hazard Description	Hazard Treatment Guidance	Hazard Abatement Technique
Slip, Trip, Fall — Oil spill responders work in places where poor footing and lighting creates slip, trip, fall hazards.	Survey responders for possible unknown injuries. If injured, treat with first aid and seek medical attention.	Provide proper illumination in work areas. Keep work areas free of excess clutter. Move cautiously in work areas and use non-slip soles on footwear. Attempt to recognize and avoid or control hazards in the work area. Conduct hazard awareness briefings.
Back Injuries — The requirement to mobilize and use great quantities of equipment during the oil spill response creates high probability of back injuries. Slips, trips, and falls contribute to back injuries.	Remove worker from the work area to prevent further stress on the worker's back. If necessary, stabilize the victim in a prone position with a backboard to prevent additional injury. Seek medical attention.	Lift objects correctly. Obtain assistance from co-workers. Use mechanical devices to reduce lifting effort. Do back and stretching exercises prior to lifting objects. Bend the legs when lifting instead of bending from the waist.
Eye Injuries — An oil spill response may expose workers to numerous eye hazards, including those resulting from chemical exposure, equipment hazards, open flames, and impacts from particulates or other foreign bodies.	If chemicals have contacted a worker's eye, flush eye with water immediately. If particulate is in the eye, flush eye with water. If an object is imbedded in the eye, do not attempt to remove it. Cover the affected eye to prevent further irritation and seek medical assistance.	Use appropriate eye protection such as safety glasses, goggles, and face shields. Avoid exposure to vapors, mists, fumes, and dusts.
Handling of Hand Tools and Spill Response Equipment — Tools used in cleanup operations such as shovels, picks, axes, etc., can inflict injury to adjacent workers if adequate distance is not maintained. Improper use of tools may also cause back injuries. Sorbents, containment booms, and waste materials can be heavy and awkward and handling and moving them may cause back injuries.	If injured, treat with first aid and seek medical assistance.	Team leaders must provide orientation for workers to familiarize them with the equipment that is being used. Use hand tools in a manner that will limit physical stress. Take frequent breaks to limit fatigue. Allow water to drain or remove ice from equipment prior to moving it. Use mechanical devices to handle heavy materials.
In Situ Burning — In situ burning will present physical fire hazards as well as particulate hazards, visibility problems and heated gas hazards resulting from the combustion of oil and oily debris.	Determine weather conditions and select escape route from plume of burn area. Contact other vessels for assistance and exit burn area as rapidly as possible.	Adhere to burn safety plans, obtain frequent weather forecasts, stay upwind. Refer to tide and current predictions to assist in burn area avoidance.

**TABLE FRP 11.3:
GENERAL PHYSICAL HAZARDS**

Hazard Description	Hazard Treatment Guidance	Hazard Abatement Technique
<p>Hypothermia — Hypothermia is the lowering of the body temperature resulting from exposure to the elements. Hypothermia will induce death if not treated properly. Symptoms include shivering, loss of lucidity, loss of coordination, confusion, and cold skin temperature. Hypothermia will occur rapidly when immersed in cold water.</p>	<p>Prevent additional heat loss and warm victim by any means available. Remove any wet clothing, add heat by placing warm items next to the victim's body. Do not give alcoholic beverages to victim. Seek medical assistance.</p>	<p>Hypothermia can be avoided by dressing appropriately for weather conditions and regulating body temperature during work activities. Establishing a system to visually monitor workers for hypothermia warning signs will assist early detection. Avoid situation where clothes become wet such as from rain or ocean spray. Avoid excess heat loss through wind exposure.</p>
<p>Frostbite — Frostbite may occur when workers are exposed to subfreezing weather conditions and improperly protected from the cold. Frostbite may affect exposed flesh or non-exposed body parts which transfer heat at rates sufficient to cause freezing.</p>	<p>Seek medical attention at once. Frostbit skin will appear white or light colored and may feel cold and solid. Thaw out body parts with warm water or by application of firm steady pressure with a warm body part. Do not thaw body parts unless they can be maintained at a warm temperature after thawing.</p>	<p>Carefully monitor weather conditions to allow time for work crews to prepare for forecasted cold weather. Workers should eat high- energy foods, keep clothing dry, bring extra dry clothing, and test for extremity circulation on a regular basis.</p>
<p>Noise Injuries — Sound sources that generate noise greater than 85 decibels include aircraft, outboard engines, generators, compressors, heaters, and heavy equipment. Noises that are greater than 85 decibels may cause permanent damage to hearing.</p>	<p>Monitor noise levels. Remove affected worker from duties that have high noise exposure potential. Provide worker with additional hearing protection equipment. Seek medical assistance as necessary.</p>	<p>Workers should use ear protection equipment or avoid high noise areas.</p>
<p>Site Illumination — Response operations during conditions of poor visibility or darkness may create dangerous or unhealthy conditions for response workers.</p>	<p>Provide substantial amounts of lighting and generator equipment. Personal head lamps and vehicle lighting may be used as supplemental lighting.</p>	<p>Provide adequate lighting. Use head lamps, portable lighting, and equipment lights to illuminate work sites.</p>
<p>Specialty or Heavy Equipment — Mechanical equipment may have exposed moving parts, generate heat capable of causing burns, or generate high pressure liquids or gases which may injure workers. Movement of heavy equipment may cause injuries to personnel.</p>	<p>Perform first aid; seek medical attention immediately.</p>	<p>Read all operating guide manuals. Be aware of any moving parts which may cause injury. Avoid direct exposure to heat or pressure generated by equipment. Wear appropriate PPE to limit possible injury. Install backup alarms on heavy equipment. Ensure all guards are in place.</p>
<p>Vehicle, Aircraft, or Vessel Accidents — Response efforts will in many cases require response personnel to travel by various modes of transportation. The emergency nature of the response may expose worker to marginally safe traveling conditions.</p>	<p>Be aware of you position at all times and know the locations of safe refuges along your intended travel route. Notify the Incident Command Post if an accident occurs and what assistance is required.</p>	<p>During all vehicle, aircraft, or vessel travel, workers will adhere to all established travel safety procedures. This includes fastening seat belts, maintaining communications, and wearing or having easy access to safety equipment.</p>

**TABLE FRP 11.3:
GENERAL PHYSICAL HAZARDS**

Hazard Description	Hazard Treatment Guidance	Hazard Abatement Technique
<p>Heat Stress — Heat stress may occur when a worker is exposed to elevated temperature conditions. Examples of when this may occur include worker suited in protective clothing which limits cooling of the individual and worker subjected to high ambient temperatures.</p>	<p>Move victim to cool, shaded location. Cool victim quickly by wrapping in wet towels. Treat victim for shock. Seek medical assistance immediately.</p>	<p>Heat stress may be avoided by taking frequent breaks to cool down and consuming large amounts of liquids. PPE can be fitted with cooling equipment. Ventilation may be used to assist with cooling. New site workers must acclimate themselves to the site conditions.</p>
<p>Worker Exhaustion — Spill response activities often involve strenuous tasks and long work hours. Symptoms of exhaustion include loss of concentration, increased frequency of trips, falls, and slips, and worker complaints of cramping and pain. Work exhaustion often manifests itself in other hazards such as accidents and back injuries.</p>	<p>Supervisors must closely observe workers for signs of exhaustion. Once an exhausted worker is identified, he shall be assigned to a less stressful task or removed from labor duties entirely until recovered. Seek medical assistance as necessary.</p>	<p>Close observation by supervisors and use of the buddy system will be used to detect and prevent worker exhaustion. Frequent breaks along with consumption of high energy foods and liquids will also decrease the likelihood of exhaustion.</p>
<p>Wildlife — Spill workers may encounter a wide variety of wildlife during response activities. Some of the wildlife may be capable of inflicting injuries to or killing response personnel. Bears present the primary wildlife hazard.</p>	<p>Treat injuries with standard first aid methods. Treat victim for shock. Seek medical assistance as necessary.</p>	<p>Wildlife protection procedures will be established for each specific spill event. These procedures may include the procurement of firearms or a "bear watch" for each group.</p>
<p>Weather — Sudden changes in weather conditions may jeopardize the safety of responders. Blizzards, ocean storm, high winds, dramatic temperature changes, or fog can all pose a serious threat.</p>	<p>If caught in severe weather, consider options carefully. Evacuation of work site may be necessary.</p>	<p>Obtain daily weather forecasts and updates as available. Preplan work site evacuation plans for worst case scenarios. Workers should bring extra clothing and emergency survival gear. Communications with the Incident Command Center must be maintained in order to coordinate evacuation or to receive support.</p>
<p>Electric Shock — Electric equipment operated at greater than 12 volts, used inlet or conductive areas, or damaged equipment can produce a severe electrical shock.</p>	<p>Remove victim from contact with energized parts. Administer CPR and first aid as necessary. Obtain medical assistance.</p>	<p>Use intrinsically safe equipment or ground fault interrupter circuits to prevent shock.</p>

INITIAL RESPONSE ACTIONS

Initial Site Assessment

An Initial Site Assessment Form, such as Table FRP 11.4, should be used by the Initial Incident Commander to determine the hazards at the spill site. This assessment must be made before any response effort can be undertaken. When the response effort is to be initiated, an Initial Site Safety Plan, similar to Table FRP 11.5, should be used to identify the spilled substance, the level of personal protective equipment (PPE) needed, type of monitoring to be used, and other pertinent response information.

Site Security

The Initial Incident Commander must evaluate the seriousness of the situation and determine the level of a health or safety risk to response personnel or the public in general and notify the Incident Commander as soon as possible. If the situation requires security, local military police should be contacted. Local law enforcement officials should also be contacted for evacuations, establishing road blocks, and limiting access to response areas.

Surface Terrain and Meteorology

The direction and velocity of prevailing winds and the proximity of the spill to possible sources of ignition, such as running equipment, must be immediately addressed. All potential ignition sources must be kept upwind of the spill or secured immediately. Some flammable vapors may be heavier than air and travel for long distances along the surface or settle in low-lying areas.

Atmospheric Testing

A hazard evaluation procedure must be established and implemented by a trained individual in order to establish safe work practices, level of personal protective equipment, and other control procedures before any personnel are committed to spill response activities. At a minimum, the flammability of the vapors and the oxygen levels must be evaluated throughout the spill site. These levels should continue to be evaluated periodically throughout the work shift to detect changes in airborne hazards that may result from response activities or changing weather conditions.

TABLE FRP 11.4: INITIAL SITE ASSESSMENT FORM (to be completed by the Initial Incident Commander prior to initiating immediate response)		
DATE	DD MM YY	
Initial Incident Commander		
1. Wind Direction	Toward Your Position	Away From Your Position
2. Are people injured/endangered?	~ YES	~ NO
3. Are non-Navy persons observing the incident?	~ YES	~ NO
4. Are persons involved in rescue attempts?	~ YES	~ NO
5. Are there any signs of potential hazards from:	Electrical lines down or overhead?	~ YES ~ NO
	Unidentified liquids or solids?	~ YES ~ NO
	Visible vapors?	~ YES ~ NO
	Unusual smells or odors?	~ YES ~ NO
	Fire or sparks from nearby ignition sources?	~ YES ~ NO

TABLE FRP 11.4: INITIAL SITE ASSESSMENT FORM [to be completed by the Initial Incident Commander prior to initiating immediate response]								
5. Are there any signs of potential hazards from: (Cont.)	Holes, caverns, deep ditches, fast moving water, or cliffs nearby?	~ YES ~ NO						
	Local vehicular or pedestrian traffic?	~ YES ~ NO						
	Warning placards, color coded placards, or danger signs?	~ YES ~ NO						
	Is the ground dry?	~ YES ~ NO						
	Is the ground wet?	~ YES ~ NO						
	Is the ground icy?	~ YES ~ NO						
	Other							
6. Make an initial assessment of the flammability of vapors and the level of oxygen present.	% LEL —							
	% O ₂ —							
7. Approach the spill site from the upwind side and observe any change in the status of any of the above items.	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 70%;">Item Number</th> <th style="width: 30%;">Change Observed</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Item Number	Change Observed					
	Item Number	Change Observed						
8. Is the incident scene secure?	~ YES ~ NO							
9. Is there a need for the additional support/equipment:	Security							
	Personal Protective Equipment							
	Hazardous Materials Technician/Specialists [identification/monitoring/source control]							
	Sites for Command Center and Decontamination Station							
	Equipment needed to control spill							
	Other							

File initial report at this time using available help. Call for medical assistance as required.

TABLE FRP 11.5: INITIAL SITE SAFETY PLAN DATE:[MM/DD/YY]		
1. REVIEW THE INITIAL SITE ASSESSMENT FORM	COMPLETED ~	
2. MAP (sketch) OF SITE W/Present Wind Direction and at Least Two Major Landmarks Completed	~	
3. Identification of all potentially harmful substances at scene ¹		
SUBSTANCE	CONTAINER	SECURED
		~ YES ~ NO
		~ YES ~ NO
		~ YES ~ NO
4. Personal Protective Equipment required ¹		
Respiratory Protection Required	~ YES ~ NO	
	If yes, type of respiratory protection:	
Protective clothing required	~ YES ~ NO	
	If yes, describe the type and level of protection in detail:	
5. Establish a monitoring system ¹	Describe monitor program (including instruments to be used)	
6. Is a vehicle involved	~ YES ~ NO	
Drivers Name: _____	Driver's License Number: _____	
Vehicle Number: _____	Tractor/trailer Number: _____	
Rail Car Number: _____	Cargo tank Number (Tank Truck): _____	
Ship Name and Number: _____	Placard(s): _____	
Other Hazard Identification Information:		
7. General Information		
Carrier Name: _____	Telephone Number: _____	
Manufacturer of Substance: _____	Telephone Number: _____	
Point of Origin (Shipper): _____	Destination (Consignee): _____	
8. Determine degree of decontamination required and designate a decontamination area ¹		
9. Establish an isolation zone and notify area residents if necessary (e.g., threat of fire or explosion)		
10. Begin control, containment, cleanup, decontamination, and disposal process		

¹ Items to be completed by a qualified Hazmat Technician or Specialist

NAVY SAFETY AND HEALTH PROGRAM

Each Navy activity must develop and implement a written safety and health program for all Navy response personnel. This program is designed to identify, evaluate, and control safety and health hazards, and provide for emergency response during oil and hazardous substance spill response operations. The written safety and health program includes the follow:

- The Navy response organization
- A generic safety and health plan
- The Navy training program
- An description of the Navy medical surveillance program

The Navy written safety and health program should be made available to any contractor or subcontractor (or their representative) who will be involved in spill response operations; to Navy employees; to Navy employee designated representatives; to OSHA personnel and; to personnel of other federal, state, or local agencies with regulatory authority over the spill response.

Site-Specific Safety and Health Plan

The site-specific safety and health plan must address the safety and health hazards of each phase of the response operation including the requirements and procedures for employee protection. The site safety and health plan should include the following:

- A safety and health risk and/or hazard analysis for each response task and operation. The risk/hazard analysis will include the following:
 - Location and approximate size of the response area
 - Description and duration of the response activities to be performed
 - Site topography and accessibility by air and roads
 - Safety and health hazards expected to be encountered
 - Exposure routes of expected contaminants and other risks such as potential skin absorption and irritation, potential eye irritation, and concentrations that are immediately dangerous to life and health (IDLH).
 - Present status and capabilities of emergency response teams that would provide assistance to response personnel in the event of an emergency
 - Health hazards involved or expected from contaminants present and their chemical and physical properties.
- Personal protective equipment to be used by employees during each of the response operations. The requirement for personal protective equipment will be based on the results of the preliminary site evaluation and the guidance provided in the Navy written safety and health program.
- Employee training requirements to assure compliance with the OSHA requirements. The training program section of the Navy written safety and health program should be used as guidance in preparation of this section.
- Medical surveillance requirements to ensure compliance with the OSHA requirements. The medical surveillance program section of the Navy written safety and health program should be used as guidance in preparation of this section.
- A schedule for and the types of air monitoring to be conducted for IDLH conditions, combustible gases, and other conditions that may cause death or serious harm.
- Methods of maintenance and calibration of monitoring and sampling equipment to be used.
- A schedule for and the types of environmental sampling techniques and instruments to be used.

- A site control program for protecting employees involved in response operations. The site control program will include a site map, an indication of the work zones, a description of the "buddy" system, site communications, emergency alert signals, standard operating procedures or safe work practices, and identification of the nearest medical assistance.
- Standard operating procedures must minimize personnel and equipment contact with spill substances.
- Decontamination procedures must be developed that cover all phases of response operations. These procedures must be communicated to all response personnel and implemented before any response employees or equipment enter areas where they can potentially be exposed.
- An emergency response plan that is a separate section of the safety and health plan must be developed that covers:
 - Pre-emergency planning, personnel roles, lines of authority, and communication
 - Emergency recognition and prevention; safe distances and places of refuge
 - Site security and control evacuation routes and procedures
 - Decontamination procedures (procedures that are not covered by the site-specific safety and health plan)
 - Emergency medical treatment and first aid
 - Emergency alerting and response procedures
 - Personal protective equipment and emergency equipment
 - Response area topography, layout, and prevailing weather conditions
 - Procedures for reporting incident to local, state, and federal governmental agencies
 - A section covering the critique of a response and follow-up
- Confined space entry procedures
- A procedure for handling, labeling, and transporting drums and containers of recovered oil and oil-contaminated debris.

Safety Briefing

The site-specific safety and health plan must provide for daily safety briefings that will be conducted prior to the start of work each day. The briefings will cover safety and health items that have changed or new information that has been obtained. These briefings will be used as a means to ensure that all response personnel have received information concerning updates of the safety and health plan.

AUDITS

Safety and health audits must be conducted by the Operations Section division/branch supervisors. The audits will be used to determine the effectiveness of the site-specific safety and health plan and to determine if additional procedures are needed to protect response personnel. The results of each audit will be forwarded to the Industrial Hygienist Unit Leader, the Documentation Unit Leader, the Operations Section Chief and Incident Commander.

GENERIC SITE SAFETY PLAN

The following section contains a generic site health and safety plan that should be used by the Safety Officer in preparing the site-specific health and safety plan.

GENERIC SITE HEALTH AND SAFETY PLANNING FOR OIL SPILLS

References:

- (a) 29 CFR 1910.120 OSHA regulations for Hazardous Waste Sites
- (b) 40 CFR 311 Worker Protection
- (c) NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH 85-115)

A. SITE DESCRIPTION

Location:

Hazards: Oil:

Treatment chemicals: _____
and general safety hazards.

Surrounding population: ____ industrial, ____ residential, ____ rural,
____ unpopulated, ____ other:

Topography: ____ rocky, ____ sandy beach, ____ docks, ____ cliffs,
____ marshes, ____ other:

Weather-related hazards: ____ heat stress, ____ hypothermia, ____ frostbite,
____ severe storms

Additional information:

B. ENTRY OBJECTIVES

Daily objectives may include oil recovery, booming, bioremediation, dispersant application, and related activities. Detailed objectives shall be developed daily, and shall be described during the pre-entry safety briefing.

C. SITE ORGANIZATION

1. The site organization shall be developed each morning by the Sector Recorder for each individual Sector, and is modified as new personnel arrive or depart. All personnel arriving or departing from the sector/site shall report to the designated recorder.
2. GENERIC ORGANIZATION. Incident organizations are developed on a case-by-case basis by the appropriate Federal OSC. The following organization serves as one example of a site organization, which is used to define the language in this document.
 - a. FOSC/STAFF (all incidents): The supervising, office-level command and control organization for the entire incident.
 - b. SITE (all incidents): Primary field organization on-site for the entire incident. For small spills this may be the only level of discrete field organization required.
 - c. SECTOR (subunits inserted between field teams and the site level for very large/complex incidents): This level is typically not needed for large spills where an organizational level is needed between the entire site and individual teams. For example, a large spill might have a vessel off-loading sector, a floating oil recovery sector with several boat teams, an east beach oil recovery sector with several teams, and a west beach oil recovery sector with no teams.

- d. FIELD TEAM (medium to large incidents): Supervisors or monitors assigned to site subunits, or (for very large organizations) assigned to sector subunits. This would be the smallest discrete level of supervision.

D. SITE CONTROL

1. Anyone entering or departing a WORK AREA, or associated control zones, shall report to the designated RECORDER for that location. Entry is conditional, based on approval of the SITE SUPERVISOR. The SITE SECURITY OFFICER shall enforce this policy at all times.
2. No person shall enter a site without subscribing to this or another approved Site Safety and Health plan.
3. No person shall enter a site without adequate training in hazardous waste operations safety and health; based on work assignment and applicable hazardous conditions.
4. Site Boundaries.
 - a. EXCLUSION ZONE(S): That part of the work area where oil recovery is taking place, shall be treated as an EXCLUSION ZONE. Only properly outfitted and trained personnel (wearing appropriate protective clothing) shall be allowed in exclusion zones.
 - b. CONTAMINATION REDUCTION ZONE(S): Contamination reduction zones shall be established at those parts of work areas used for cleaning and storage of oily clothing and equipment. These zones shall provide for personnel to wash their hands and face, and change into street clothing before leaving the site or consuming food and beverages.
 - c. SUPPORT ZONE(S): Related uncontaminated field locations; such as command posts, equipment staging/storage, and eating areas. The SUPPORT ZONE(S) shall be maintained as clean as practicable by observing decontamination procedures.
 - d. The above zones shall be marked as needed to control traffic and enforce decontamination procedures. Appropriate placards, barricades, traffic cones, and/or boundary tape shall be used for this purpose. The SITE SAFETY OFFICER shall periodically inspect work areas to ensure the effectiveness of boundaries. The following color coding applies:
 - (1) orange, red, or black and yellow for EXCLUSION ZONES,
 - (2) yellow for CONTAMINATION REDUCTION ZONES, and
 - (3) green for SUPPORT ZONES.
5. A site map shall be developed and modified as necessary for each sector, and attached to the applicable Site Safety and Health Plan, by the SITE RECORDER and SITE SAFETY OFFICER. The map shall include items such as (but not limited to) the following:
 - a. Exclusion Zone
 - b. Contamination Reduction Zone
 - the decontamination layout
 - equipment storage
 - temporary waste storage areas
 - washing, toilets and hygiene facilities

- c. Support Zone
 - first aid stations
 - emergency fire fighting equipment
 - command posts/office spaces
 - new equipment staging/storage
 - eating/rest areas
 - bird/mammal cleaning and rehabilitation

- d. Location of Identified Hazards
 - underground cables
 - overhead cables
 - pits, trenches, open holes/hatches
 - wasted deck plate
 - hearing protection areas
 - hard hat areas
 - suspected locations of poisonous plants, insects, or animals
 - high pressure wash areas
 - bioremediation application areas
 - dispersant application areas

E. HAZARD EVALUATION

1. Potentially hazardous chemical substances/mixtures.

- a. Oil: crude, gasoline, military JP-4, commercial JET B, aviation gasoline, gas oils.
 - (1) Composed of an indefinite petroleum distillate mixture. The content typically includes benzene, toluene, xylene, naphthalene, and Polyaromatic Hydrocarbons (PAHs). The concentration of these products will vary widely depending on the source of the oil, weathering, and aging.
 - (2) HAZARD DESCRIPTION: May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzene is a hematologic toxin (it affects the blood and blood forming organs), and is a carcinogen. The most important potential benzene, toluene, or xylene hazard is in poorly ventilated areas (such as pits or under docks), or around freshly spilled oil. Benzo(a)pyrene is a skin contact hazard and potentially may cause skin cancer with chronic skin contact. As oil weathers and ages, benzo(a)pyrene becomes more concentrated because it evaporates much slower than other chemicals in the mixture.
 - (3) BASIC PRECAUTIONS: Stay away from, or upwind of, fresh oil spills; wear chemical-resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting —contact a physician. Urine phenol should be tested as soon as possible (and not later than 72 hours after exposure) if there is a suspected overexposure to benzene. Urine-specific gravity should be corrected to 1.024 for this test. If urine phenol values exceed 75 mg per liter further testing in accordance with 29 CFR 1910.1028(i)(4) may be needed, and individuals must be removed from areas of potential benzene exposure until values return to normal.

- b. Oil: kerosene, diesels, military JP-5, commercial JET A.
- (1) Composed of an indefinite petroleum distillate content typically including Polyaromatic Hydrocarbons (PAHs). The concentration of these products will vary widely depending on the source of the oil, weathering, and aging.
 - (2) HAZARD DESCRIPTION: May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzo(a)pyrene is a skin contact hazard and potentially may cause skin cancer with chronic skin contact.
 - (3) BASIC PRECAUTIONS: Wear chemical-resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting — contact a physician.

c. Chlorine Gas

- (1) CHARACTERISTICS: Highly corrosive gas. Heavier than air. Will pocket in low-lying areas. Harmful plume concentrations easily carried downwind.
- (2) HAZARD DESCRIPTION: Gas can be absorbed into body through inhalation. Gas is corrosive. Contact with body moisture will cause weak acid to form and may cause serious injury to the eyes, skin, and respiratory tract. Flush exposed areas with large quantities of water. Respiratory effects may be delayed. Seek medical attention immediately.
- (3) BASIC PRECAUTIONS: Wear chemical-resistant clothing as necessary to protect against skin or eye contact. Wear self-contained breathing apparatus. Evacuate area upwind. Consider shelter in place in lieu of evacuation depending upon specific situation and meteorological conditions. Approach site from upwind. Avoid spraying water on leaking cylinder as this will accelerate corrosion of the cylinder and increase leakage.

Bioremediation application. See attached MSDS information when these products are in use.

- d. Dispersant applications. See attached MSDS information when these products are in use.

2. Additional hazards may be encountered on-site and shall (along with any other applicable hazards found during the site survey) be marked on the attached project maps. See also the attached listing of generic health hazard information.

- slippery rocks
- dangerous working surfaces (e.g., wasted deck plating or rotting wood floors)
- difficult access/egress between vessels and docks
- drowning
- heat stress hypothermia cold stress
- UV sunlight (eyes/skin)
- noise hazards
- ticks snakes bees yellow jackets
- poison ivy/ oak/ sumac
- overhead/buried electrical cables
- open manholes/ pits/ trenches/ hatches
- falling objects
- carbon monoxide from vehicle exhaust
- fire and explosion hazards

F. CONTROLS

The following controls shall be observed on-site.

1. **FIRES.** Each restriction zone and associated contamination reduction zone shall have at least one each of the following:

- a fully charged Class A fire extinguisher for ordinary fires,
- a fully charged Class B fire extinguisher for liquid fires, and
- a handheld fog horn to alert personnel.

The above items shall be maintained in a readily accessible location, clearly labeled in red, and with the location noted on the project map.

2. **SLIPPERY ROCKS AND SURFACES.** All personnel in the work area shall wear rubber safety boots with steel toe/shank and textured bottoms. Boat crews may substitute clean deck shoes with textured soles (free of oil on cloth/leather uppers, and no oil observable inside the shoes).
3. **LIGHTING.** Portable lighting shall be provided for dark areas or work after sunset.
4. **WORK NEAR WATER.** All personnel working in boats, on docks, or generally within 10 feet of water deeper than 3 feet, shall wear Coast Guard approved personal flotation devices (PFDs).
5. **HEAT STRESS.** The SITE SAFETY OFFICER shall make heat stress determinations throughout the day. If it is determined that a heat stress hazard exists, an alert shall be passed to all teams to implement mandatory rest periods. The SITE SAFETY OFFICER shall generally be guided by the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines in determining work/rest periods. Fluids shall be available at all times and encouraged during rest periods. (See attached information sheet on heat related health effects.)
6. **COLD STRESS.** Workers shall be provided with adequate warm clothing. The SITE SAFETY OFFICER shall make cold stress determinations throughout the day when temperatures fall below 50 degrees F.
 - a. If a cold-stress hazard exists, an alert shall be passed to all teams to implement mandatory rest/warm-up periods. The SITE SAFETY OFFICER shall generally be guided by the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines in determining rest/warm-up periods.
 - b. For prolonged cold-weather operations, warming shelters shall be provided for rest periods. Warm and/or sweet fluids (such as soups, cocoa, cider, or sweetened, low-caffeine hot teas) shall also be available during rest periods. Drinking coffee should not be encouraged.
 - c. For prolonged water temperatures below 59 degrees F, or a combined water and air temperature less than 100 degrees F, exposure suits shall be worn by personnel working/traveling in small boats or aircraft over water.
7. **HIGH NOISE LEVELS.** Hearing protection shall be used in high noise areas (exceeding 84 dBA, or designated by the Site Safety Officer). Locations likely to exceed this level include: the vicinity of vacuum trucks and heavy equipment; bird hazing stations; and generally where noise levels require personnel to raise their voices to be heard.
8. **POISONOUS INSECTS** (e.g., mosquitoes and ticks). All personnel shall be provided with long-sleeved clothing and insect repellent in designated areas.

9. **POISONOUS SNAKES.** All personnel working in designated areas shall wear snake-proof leggings or hip-high rubber boots.
10. **POISONOUS PLANTS** (e.g., poison ivy, oak, and sumac). Long-sleeved clothing shall be worn in areas designated to contain these plants. Areas known to contain these plants shall be marked/posted to the extent possible at the site. Emergency medical personnel shall prescribe first aid treatments to be carried in these areas.
11. **ELECTRICAL HAZARDS.** Electrical power lines (buried or overhead) shall be marked on applicable project maps, and physically marked in the field as necessary.
12. **TRAP HAZARDS.** Open manholes, pits, trenches, or similar hazards shall be noted on project maps, and marked with placarded barricades. The SITE RECORDER shall ensure that these locations are periodically checked during the day; and additionally in the event that entering personnel are not accounted for at the end of a shift.
13. **CARBON MONOXIDE.** Vehicle/equipment operators shall ensure that personnel are not allowed to linger or work near exhaust pipes or sources of carbon monoxide.
14. **FALLING OBJECTS.** Hard-hat areas determined by site survey shall be noted on project maps.
15. **UV LIGHT EXPOSURE.** Sunscreens of protection factor 15 (or greater), and UV tinted safety glasses shall be made available for response personnel as needed to prevent overexposure to UV light.
16. **BUDDY SYSTEM.** The buddy system shall be observed inside the Work Area (EXCLUSION and CONTAMINATION REDUCTION ZONES). Personnel must work within sight of their assigned partner at all times. A partner shall be assigned by the RECORDER as personnel check in. Personnel shall use whistles to indicate that they need assistance in areas where personnel may be obscured from supervisors (e.g., high grass, boulders, or warehouse areas) as noted on the Project Map.
17. **Personal Protective Equipment (PPE).** The following PPE ensembles shall be used while on-site. If designated "as-needed" the equipment does not need to be worn unless the item is needed to keep oil off clothing and skin. The SITE SAFETY OFFICER may modify ensembles on a case-by-case basis as approved by the Sector/Site Supervisor.

LOCATION	JOB FUNCTION	LEVEL
Work Area	Bioremediation crews	C1
	High pressure wash crews	C2
	Sampling crews	C3
	Dispersant crews	D
	All others	D
Contamination Reduction Zone	All personnel	D
Support Zone	All personnel	street clothing

18. Sanitation and potable water.

- a. Potable water. An adequate supply of potable water, or other drinking fluids, shall be maintained at all times throughout the site. Containers for drinking fluids shall be capable of being tightly closed, and equipped with a tap. These containers must also be labeled in such a manner that the contents are not accidentally used for other purposes. Where single service cups are supplied, the unused cups shall be maintained in sanitary containers; and a separate disposal container provided for used cups.
- b. Non-potable water. Water intended for uses other than drinking or washing shall be identified in such a way that it is not accidentally used for drinking, washing, or cooking. There shall be no cross-connection of potable and non-potable water supplies.
- c. Toilet facilities. Toilet facilities shall be provided at a minimum in accordance with Table H-120.2 (Toilet Facilities) of 29 CFR 1910.120(n).
 - (1) 20 or fewer people 1 facility
20-200 people: 1 toilet seat, and
1 urinal per 40 persons
More than 200 people: 1 toilet seat, and
1 urinal per 50 persons
 - (2) Toilets shall be provided such that they are readily accessible from all work areas. Mobile work crews with ready access to toilet facilities using their own transportation, do not need to have toilet facilities located at their temporary work sites.
 - (3) Sewage shall be handled in accordance with local health codes using one of the following means:
 - sanitary sewer,
 - chemical toilets,
 - recirculating toilets,
 - combustion toilets, or
 - flush toilets.
- d. Food handling shall be conducted in accordance with the requirements of local jurisdiction.
- e. Washing Facilities. Washing facilities shall be readily accessible by all employees. In addition to sanitary cleaning, these facilities shall be so equipped that they can be used to remove oily residues from the skin. Washing facilities shall be maintained free of contaminants above exposure limits, and as free as practical from oily residues.
- f. Showers. For oil spill operations lasting more than 6 months, showers and changing rooms must be provided in accordance with 29 CFR 1910.120(n)(7); and 29 CFR 1910.141(d)(3) and 1910.141(e).

G. COMMUNICATIONS

1. General signals:
 - a. A whistle shall be treated as a need for assistance.
 - b. Repeated short blasts from a hand-held fog horn shall be used to indicate a fire emergency.

2. VHF Channel _____ has been designated as the working frequency for all sectors.
3. VHF Channel _____ is designated for site emergencies.
4. Cellular phone number of Command Post:
5. Cellular phone number of Site Safety Officer:
6. Other cellular phone numbers:
7. Medical Assistance:
Nearest Medical Facility (attach map):

Phone:

Location:

Phone for Ambulance: 911
8. Phone Police/Sheriff: 911
9. Phone for Fire Dept: 911

H. DECONTAMINATION PROCEDURES

1. Personnel with contaminated clothing and equipment shall leave the Work Area by following the prescribed decontamination procedure below:
 - a. Wipe off oily equipment and PPE clothing with a sorbent pad.
 - b. Inspect PPE clothing for rips or other damage. Inspect the inside of PPE clothing for signs of oil penetration. Discard if damaged or oil penetration observed.
 - c. Store oily equipment in contaminated equipment storage.
 - d. Store oily PPE clothing in labeled lockers.
 - e. Discard oily articles in appropriate trash bins.
 - f. Remove, clean, and inspect respirators.
 - g. Store cleaned respirators in respirator storage.
 - h. Place cloth coveralls in laundry basket or discard if excessively dirty.
 - i. Wash face and hands with soap and water.
 - j. Change into street clothing.

2. Equipment for Decontamination:

- decontamination shelter;
- orange, red, yellow, green, and black and yellow tape for zones/hazards;
- plastic or painted metal placards for "Exclusion Zone," "Contamination Reduction Zone," "Support Zone," and blank placards and markers;
- saw horses, wood stakes, hammers, and nails;
- area for new/clean equipment storage;
- area for new PPE storage;
- area for clean cloth coverall storage;
- hangers for oily PPE clothing;
- lockable storage for street clothing;
- waterless soap;
- soapy water for respirators (when applicable);
- sterilizing solution for respirators;
- clean plastic bags for respirator storage;
- towels;
- sorbent pads;
- lined bins for oily debris;
- trash cans and trash bags for other debris/garbage.

I. EMERGENCY PROCEDURES

1. Emergency Medical Procedures:

- REMAIN WITH YOUR ASSIGNED BUDDY AT ALL TIMES.
- Use whistle to call for assistance if necessary.
- Do not attempt to move seriously injured personnel, call for an ambulance to come to the injured person.
- Report all injuries to your supervisor.

2. Emergency Fire Procedures:

- REMAIN WITH YOUR ASSIGNED BUDDY AT ALL TIMES.
- DO NOT attempt to fight fires other than small fires.
- DO NOT take extraordinary measures to fight fires.
- Sound fire signal if fire cannot be put out quickly.
- Alert nearby personnel to call Fire Department.
- Notify supervisor and Site/Sector Recorder.
- All other personnel hearing the Fire Fog Horn signal shall immediately proceed, WITH THEIR ASSIGNED BUDDY, to the designated entry/exit point and SITE/SECTOR RECORDER for roll call.
- The Site/Sector Supervisor OR the Fire Department shall ensure that the fire is extinguished OR the Fire Department is called for assistance BEFORE restarting work.

J. SITE SAFETY MEETINGS

Site Safety Meetings shall be held by each Supervisor immediately before a shift or beginning a new work assignment; and at the end of each shift. At a minimum these meetings will describe the work to be accomplished, discuss safety procedure changes, and develop "pass-the-word" notes for the Site/Sector Recorder to pass to personnel entering the area.

K. THE SITE SAFETY OFFICER

The Site Safety Officer for this incident is: _____

The responsibilities of the SITE SAFETY OFFICER include (but are not limited to):

- coordination of the FOSC safety and health concerns with the Scientific Support Coordinator;
- keeping this plan current; and
- liaison with site safety officers from other organizations.

L. AUTHORIZATIONS

SITE SAFETY OFFICER: _____ DATE:

FEDERAL ON SCENE COORDINATOR: _____ DATE:

SITE/SECTOR ORGANIZATION RECORD SHEET

The Site/Sector Recorder maintains an up-to-date, comprehensive, organization record. When relieved: the Recorder provides this site organization record/log to the incident's DOCUMENTATION OFFICER; and assists the relief in starting a new organization record, and accounts for all personnel logged into the area. All persons wishing to enter the work area (including the EXCLUSION and CONTAMINATION REDUCTION ZONES) must subscribe to a site safety plan, be adequately trained in hazardous waste site safety, and be adequately trained for their work assignment.

SITE/SECTOR NAME: _____

RECORDERS NAME: _____

RECORD START DATE/TIME: _____ **STOP DATE/TIME:** _____

	Printed name:	Time In	Time Out	Time In	Time Out
SUPERVISOR					
SITE/SECTOR SAFETY					
SECURITY					
EMT/FIRST AID					
OTHER REPS					

FIELD TEAM NAME:
(e.g., oil recovery team, bioremediation team, water wash team)

**SUPERVISOR
MEMBERS:**

Use Continuation Sheet if additional room is needed:

PPE ENSEMBLES

LEVEL D ENSEMBLE

- cloth coveralls
 - OPTION: long-sleeved coveralls (poison plant areas)
 - OPTION: short-sleeved coveralls (heat stress alert)
 - OPTION: street clothing may be worn by supervisory personnel, technicians, specialists, etc., that will not be exposed to liquid oil, or high pressure wash sprays, etc.
- rubber steel-toe/shank safety boots with textured bottoms
 - OPTION: hip high rubber boots (e.g., designated snake areas)
 - OPTION: deck shoes with textured soles (e.g., boat operations)
- rubber gloves (as needed)
 - OPTION: leather gloves (if no contact with oil)
- rubber rain pants (as needed)
 - OPTION: disposable if oiling is light
- rubber rain jacket and hood (as needed)
 - OPTION: disposable if oiling is light
- rubber apron (as needed)
 - OPTION: disposable if oiling is light
- PFD (all personnel on or near water)
- quart bottle to carry fluids (during heat stress alerts)
- hearing protection (in noisy areas)
- insect repellent (in designated mosquito/tick areas)
- hard hat (all personnel in designated areas)
- safety glasses (as required by Site Safety Officer)
 - OPTION: with tinted lenses (as required for sunlight)
- sunscreen (as needed for sunlight)
- whistle (in designated areas)

NOTES:

- 1) "AS NEEDED" means to use when and in such a way so as to prevent significant skin contact with oil.
- 2) "RUBBER" means chemical-resistant material which resists oil penetrating to the skin or cloth garments underneath.

LEVEL C ENSEMBLE

- all LEVEL D items
- rubber gloves (MANDATORY)
- plastic rain pants (MANDATORY)
 - OPTION: disposable if oiling/contamination is light
- plastic rain jacket with hood (MANDATORY)
 - OPTION: disposable if oiling/contamination is light
- respiratory protection
 - full face respirator
 - half mask respirator
 - organic vapor cartridge
 - dust, fume, mists cartridge
 - paint spray combination cartridge
 - other:
 - additional eye/face protection
 - goggles
 - face shields
 - other:

NOTES:

- 1) "AS NEEDED" means to use when and in such a way so as to prevent significant skin contact with oil.
- 2) "RUBBER" means a chemical-resistant material which resists oil penetrating to the skin or cloth garments underneath.

LEVEL B ENSEMBLE

- ___ Splash Suit; Tyvek, saranex
- ___ Inner Gloves; nitrile
- ___ Outer Gloves; nitrile, neoprene
- ___ Outer safety boots
- ___ SCBA
- ___ Hard hat

LEVEL A ENSEMBLE

- ___ Encapsulating Suit
- ___ Inner Gloves; nitrile
- ___ Outer Gloves; nitrile, neoprene
- ___ SCBA
- ___ Hard hat

GENERAL SIGNS/SYMPTOMS THAT INDICATE POTENTIAL TOXIC EXPOSURES

- sudden weight loss or change in appetite
- unusual fatigue or new sleeping difficulties
- unusual irritability
- skin rashes/allergies/sores
- hearing loss
- vision loss/problems
- changes in sense of smell
- shortness of breath/asthma/cough or sputum production
- chest pains
- nausea/vomiting/diarrhea/constipation
- weakness/tremors
- headaches, or
- personality changes

MANIFESTATIONS OF TOXIC EFFECTS TO VARIOUS TARGET ORGANS:

TARGET ORGAN: skin

MANIFESTATIONS: dermatitis, chloracne, skin cancer

CHEMICAL/PHYSICAL AGENT(S): Hydrocarbon solvents, chlorinated hydrocarbons (e.g., PCB), soap, dioxane, alcohols

TARGET ORGAN: respiratory system

MANIFESTATIONS: acute pulmonary edema, pneumonitis, asthma, lung cancer

CHEMICAL/PHYSICAL AGENT(S): many forms of dusts, fumes, and vapors

TARGET ORGAN: cardiovascular system

MANIFESTATIONS: arrhythmias, angina

CHEMICAL/PHYSICAL AGENT(S): carbon monoxide, hydrogen sulfide, organophosphates, glues/glue-solvents, temperature extremes

TARGET ORGAN: gastrointestinal system

MANIFESTATIONS: abdominal pain, nausea, vomiting, diarrhea, bloody stools, hepatic necrosis, hepatic cancer, hepatic fibrosis

TARGET ORGAN: genitourinary system

MANIFESTATIONS: chronic renal disease, bladder cancer

CHEMICAL/PHYSICAL AGENT(S): halogenated hydrocarbons

TARGET ORGAN: nervous system

MANIFESTATIONS: headache, convulsions, coma, peripheral neuropathy

CHEMICAL/PHYSICAL AGENT(S): carbon monoxide, organophosphates, organic solvents

TARGET ORGAN: auditory system

MANIFESTATIONS: temporary and permanent hearing loss/shift

CHEMICAL/PHYSICAL AGENT(S): loud noise

TARGET ORGAN: ophthalmic system

MANIFESTATIONS: eye irritation, cataracts

CHEMICAL/PHYSICAL AGENT(S): petroleum products, UV radiation

TARGET ORGAN: hematological system

MANIFESTATIONS: anemia, bleeding disorder, leukemia

CHEMICAL/PHYSICAL AGENT(S): benzene

HEAT STRESS INFORMATION FROM NIOSH 86-112 HEALTH

SAFETY PROBLEMS:

Safety problems are common to hot environments as heat tends to promote accidents due to slippery objects from sweaty palms, dizziness, or the visual distortions from fogged safety glasses.

The frequency of accidents, in general, appears to be higher in hot environments than in more moderate environmental conditions. Working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability, and other emotional states which can cause workers to overlook safety procedures or to divert attention from hazardous tasks.

HEALTH PROBLEMS:

Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

HEAT STROKE. Heat stroke is the most serious health problems associated with working in a hot environment. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. A heat stroke victim's skin is hot, usually dry, red, or spotted. Body temperature is generally 105 degrees F or higher, and the victim can be mentally confused, delirious, convulsive, or unconscious.

Any person showing symptoms of heat stroke requires immediate hospitalization. First aid including removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body should be administered immediately. Further treatment, at a medical facility, should include the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke is the only means of preventing permanent brain damage or death.

HEAT EXHAUSTION. Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves resting the victim in a cool place and administering plenty of liquids. Victims with mild cases of heat exhaustion generally recover quickly. Those with severe cases may require extended care. There are no known permanent effects.

CAUTION — PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW-SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

HEAT CRAMPS. Heat cramps are painful spasms of the muscles that can occur during times of high sweat without an adequate replacement of the body's salt. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles can cause painful cramps. The affected muscles may be part of the arms, legs, or abdomen; but tired muscles (those used in performing the work) are generally the ones most susceptible. Cramps may occur during or after work hours and may be relieved by ingesting salted liquids.

CAUTION — PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW-SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

FAINTING. A worker who is not accustomed to hot environments and who stands immobile in the heat can faint. Due to the body's attempts to control internal temperature enlarged blood vessels in the skin and lower body may pool blood rather than return to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By keeping active and moving around, blood should be prevented from pooling, and the patient can avoid further fainting.

HEAT RASH. Heat rash is likely to occur in hot, humid environments where heat is not readily evaporated from the surface of the skin leaving the skin wet most of the time. Sweat ducts become plugged, and a skin rash can develop. When the rash is extensive or complicated by infection, heat rash can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

TRANSIENT HEAT FATIGUE. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue can be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

PREPARING FOR WORK IN THE HEAT

One of the best ways to reduce heat stress in workers is to minimize the heat in the work place. However, there are some work environments where heat production is difficult to control, such as outdoors where exposed to various weather conditions.

Humans, to a large extent, are capable of adjusting to the heat. Adjusting to heat under normal circumstances, usually takes 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments or who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimatized to heat. Likewise, workers who return to work after a leisurely vacation or extended illness can be affected by the heat in the work environment. Under such circumstances, the worker should be allowed to acclimate to the hot environment.

Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. One way of reducing the potential for heat stress is to make the job less strenuous or lessen its duration by providing adequate rest time.

NUMBER AND DURATION OF EXPOSURES

Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

Workers employed outdoors are especially subject to weather changes. A hot spell or a rise in humidity can create overly stressful conditions.

REST AREAS. Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. Rest areas should be as close to the work area as possible, and provide shade. Individual work periods should not be lengthened in favor of prolonged rest periods. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

DRINKING WATER. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink less fluids than needed due to an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available. Individual drinking cups should be provided — never use a common drinking cup.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets SHOULD NOT be used.

CAUTION — PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW-SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT POTENTIAL HEALTH PROBLEMS.

PROTECTIVE CLOTHING. Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing excessive clothing reduces the body's ability to lose heat to the air. When air temperature is higher than skin temperature, however clothing can help to prevent the transfer of heat from the air to the body. The advantage of wearing additional clothes, however, may be nullified if the clothes interfere with the evaporation of sweat (such as rain slickers or chemical protective clothing).

BULK LIQUID CARGOES THAT CONTAIN BENZENE

This is a partial list of products (and their assigned CHRIS codes in parentheses) which contain benzene. The exact volumes will vary among manufacturers and batches. Benzene vapor concentrations which may be produced by these products will also vary from mixture to mixture, depending on the chemical properties and volume percentages of the different components.

- benzene (BNZ)
- benzene hydrocarbon mixtures containing 10% or more benzene (BHB)
- benzene hydrocarbon mixtures with acetylene (BHA)
- benzene, toluene, xylene mixtures (BTX)
- C-5 mixture (15% or more benzene, isoprene, 1,3-pentadiene (CFX)
- coal tar (COR)
- coal tar pitch (CTP)
- coal tar naphtha (NCT)
- coal tar: see "oil" coal tar (OCT)"
- cyclopentadiene, styrene, benzene mixtures (CSB)
- gas oil (GOC)
- gasoline: aromatic (GAR)
- gasoline: automotive (GAT)
- gasoline: aviator (GAV)
- gasoline: pyrolysis (greater than 5% benzene) (GPY)
- gasoline: straight run (GSR)
- gasoline: blending stock reformats (GRF)
- jet fuel: JP-4 (JPF)...similar to Commercial Jet B
- jet fuel: JP-5 (JPV)...similar to Commercial Jet A
- JP-5 generally does not contain benzene except in trace amounts.
- Consult MSDS sheets for specific manufacturer
- naphtha: see "coal tar naphtha" (NCT)
- naphtha: solvent (NSV)

naphtha: Stoddard solvent (NSS)
naphtha: VM&P (75% naphtha) (NVM)
naphtha: see "petroleum naphtha" (TPN)
oil: crude oil (OIL)
oil: coal tar (OCT)
petroleum naphtha (PTN)
white spirit (WSP)
white spirit (low 15-20% aromatic) (WSL)

SOME TRADE NAME PRODUCTS WHICH MAY CONTAIN BENZENE:

"BUTADIENE, BENZENE MIX"
"COKE OVEN LIGHT OIL"
"COAL TAR LIGHT OIL"
"DEPENTANIZED AROMATIC STREAM"
"DRIPOLENE"
"ETHYLENE DICHLORIDE — CRUDE"
"HYTROL D"
"LIGHT AROMATICS CONTAINING BENZENE"
"NAPHTHA CRACKING FRACTION"
"PETROLEUM HYDROCARBON POLYMERS"
"PHENOL (AND CRESOL MIXTURES WITH 5% BENZENE OR MORE)"
"RAFFINATE"

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TAB 12: PLAN REVIEW AND UPDATE

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12.0 PLAN REVIEW AND UPDATE

12.1 PLAN REVIEWS

Facility response plans must be reviewed at least annually. The review shall incorporate any changes in the listing of economically important or environmentally sensitive areas identified in the ACP in effect 6 months prior to plan review.

- The review must occur within 1 month of the anniversary date of the EPA and RSPA COTP approval of the plan as appropriate.
- After the review, if changes to the plan are needed, a plan amendment must be submitted to the respective regulatory agency for review or approval (see below).
- Any required changes must be entered in the plan and noted on the record of changes page.

12.2 PLAN AMENDMENTS AND UPDATES

Revisions or plan amendments must be made and submitted to the respective regulatory agency for review and/or approval whenever there is:

- A Change in the facility's configuration that significantly affects the information included in the response plan;
- A change in the type of oil group (persistent or non-persistent) handled, stored, or transported that affects the required response resources;
- A change in the name and/or capabilities of the oil spill removal organization required by 33 CFR 154.1045 or 40 CFR 112.20;
- A change in the facility's emergency response procedures;
- A change in the facility's geographic area of responsibility;
- Any other changes that significantly affect the implementation of the plan; or
- No later than five years from the date of plan approval.

Note that 40 CFR 112, the EPA NTR OPA 90 implementing regulation, requires a facility to revise and submit revised portions of its FRP within 60 days of changes that may affect the response to a worst-case discharge as described above.

12.3 AMENDMENT SUBMITTAL

Amended plans should be distributed to all person, regulatory agencies, facilities, and Navy Departments listed in the "Plan Distribution Sheet" in the front of this plan.

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TAB 13: NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA)

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13.0 NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA)

NAS Key West shoreline environments contain abundant and fragile natural resources. These resources are potentially at risk from oil or hazardous substance releases. The Oil Pollution Act 1990 (OPA 90) provides regulations that address the prevention of oil discharges and liability for the removal and compensation of the discharge when navigable waters and adjoining shorelines are impacted. OPA 90 also provides for the designation of federal, state, tribal and foreign officials to act on behalf of the public interest as trustee(s) for natural resources. In the event that natural resources are injured, destroyed, or loss of use occurs as a result of discharges covered by OPA 90, the designated officials are authorized to assess natural resource damages, present a claim for those damages, and develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent of the natural resources under their trusteeship.

Navy guidelines and policy addressing NRDA requirements under OPA 90 are established by the OPNAVINST 5090.1B, Chapter 27. The overarching Navy policy on NRDA reads as follows:

"The Navy is committed to the restoration, rehabilitation or replacement of natural resources and services within its management or control injured by OHS releases to the environment. Where releases from Navy vessels and/or facilities may be responsible for injury to natural resources not within Navy control, the Navy will participate in natural resource damage assessment and restoration processes instituted and lawfully directed by Natural Resource Trustees. The policy of the United States Navy, when acting of behalf of SECDEF as Federal Trustee for Natural Resources, is to seek compensation and/or financial participation from parties responsible for injuries to natural resources within Navy management or control."

Facility Incident Commanders (FIC) should become familiar with the general Navy requirements for NRDA set forth in Chapter 27. The most pertinent information regarding the FIC's responsibility for NRDA is outlined below.

FACILITY

The FIC is responsible for ensuring certain activities assigned to the responding Facility Response Team (FRT). OPNAVINST 5090.1B Chapter 27, Section 27-6.5 directs the responding FRT to:

- a. Report whether and the extent to which natural resources have been exposed to an OHS release.
- b. Compile and sign a PIER¹ report within six hours of being notified of an OHS release in their AOR.
- c. Deliver the PIER report to the cognizant Navy REC not later than the close of business on the next day following notification of an OHS release in their AOR.
- d. Annually exercise the responsibilities identified above.

Note¹: The format for the Preliminary Impact and Exposure Report (PIER) is provided in the OPNAVINST 5090.1B as Appendix M. The PIER Report Form is included within this Tab. The PIER is a rapid "first order" report made on-site by the FRT to determine whether and the extent to which natural resources have been exposed to an OHS release.

NOSC

The NOSC will act as the Navy's primary point of contact for the planning and execution of NRDA and restoration activities within the NOSC area of responsibility (AOR). The NAS Key West plan contains local area guidance on NRDA in accordance with the provisions in OPNAVINST 5090.1B, Chapter 27. The NOSC will also ensure that all activities within the AOR have sufficient resources and training in the NRDA processes specific to each facility in the AOR. In addition, the NOSC will act as the Navy regional environmental coordinator's or state trustee's primary contracting authority in retaining technical assistance from the private sector to facilitate the planning an execution of NRDA within the AOR.

STATE

The Florida Department of Environmental Protection (FDEP) may act as trustee for all NRDA processes. It is the state's goal to recover the cost of any damages from the responsible party. Fines will be assessed for the injury or destruction of natural resources, including, but not limited to, the death or injury of living things and damage to or destruction of habitat, resulting from pollutant discharges.

Natural Resource Damage Assessment Process Flowchart	
Action	Parties Responsible
Notification of spill or release incident.	Party discovering the spill/release.
Survey injury to natural resources within 6 hours of notification.	Facility response team.
Deliver PIER to the NOSC NLT COB the next business day. PIER format is enclosed in this section.	Facility response team.
Assess the PIER and determine whether further assessment or notification of trustees will be necessary.	NOSC or Regional Environmental Coordinator.
Assess the extent of injury to the natural resources by comparing to the baseline condition. Develop restoration plan. Seek monetary damages from the RP. Implement the plan.	Trustees.

APPENDIX M

PRELIMINARY IMPACT AND EXPOSURE REPORT (PIER)

Natural Resource Damages

Name of Surveyor:		Rank / Rate:
Command:		Code: Phone:
1. SURVEY ENVIRONMENTAL IMPACT		
a. Survey area to assess imminent danger to the public (i.e., water intakes close to spill).		
b. Survey area to assess imminent danger to wildlife or environmentally sensitive areas. (i.e., marshes, hatcheries, rookeries).		
c. <i>If spill threatens human health and safety, wildlife or environmentally sensitive areas, call:</i>		
2. SURVEY THE SPILL		
a. Date and Time of Spill:	b. Location:	
c. Suspected Substance:	d. Estimated Amount:	
e. Likely Source:	f. Proximity of slick edge to nearest shoreline:	

g. Describe the visual impact of spill (sheen, emulsion, slick size, color, movement). Photograph or videotape, if appropriate.	
h. Describe predicted spill pathways (to assist in the strategic positioning of response assets).	
3. WEATHER CONDITIONS:	
a. Air Temp:	b. Water Temp:
c. Wave Height:	d. Wave Period:
e. Wind Direction:	f. Wind Speed:
g. Tide: Ebb/Flood:	h. Current: Direction / Speed:
4. ODORS	
Describe Odors Observed:	
5. WITNESSES	
List name, address, phone of witnesses on scene at time of survey:	
6. NATURAL ENVIRONMENT EXPOSED TO OHS.	
a. reef structure	
b. bluffs	
c. beaches	
d. rocky shoreline	
e. river banks	
f. mangroves	
g. tidal flats	
h. marshes	
i. other vegetation	
7. MANMADE STRUCTURE EXPOSED TO OHS.	
a. seawalls	
b. breakwaters	
c. piers	
d. dolphins	
e. riprap	
f. other structure	
8. WILDLIFE EXPOSED TO OHS.	
a. oiled or dead birds	
b. dead fish/fish pens/fishing grounds	
c. shellfish beds	
d. marine mammals	
e. amphibians/reptiles	
f. other animal life	

9. OPERATIONS		
a. Describe relevant operations occurring at or near spill site (i.e., refueling, construction, salvage, etc.)		
b. Describe in narrative summary the operations undertaken to minimize injury to natural resources, if any.		
<i>This PIER report must be filed with the Navy Regional Environmental Coordinator (REC) by close of business on the next business day following notification of the spill/release.</i>		
Signature of Surveyor:	Date:	Time:
Reviewing REC Officer:	Date:	Time:
10. RECOMMENDATION		
Do you recommend a more detailed damage assessment survey? (Yes/No)		
Receiving Natural Resource Officer:	Date:	

TAB 14: EPA COVER SHEET

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14.0 EPA COVER SHEET

General Information

Owner/Operator of Facility: UNITED STATES NAVY

Facility Name: NAVAL AIR STATION KEY WEST

Facility Address (street address or route): P.O. BOX 9007, Environmental Department Code N45

City, State, and U.S. Zip Code: Key West, Florida 33040-9901

Facility Phone No.: (305) 293-3333

Latitude (Degrees: North): 24° 35' 00"
degrees, minutes, seconds

Longitude (Degrees: West): 81° 42' 30"
degrees, minutes, seconds

Dun & Bradstreet Number: Not Applicable

North American Industrial Classification (NAISC) Code: 92811 (National Security)

Largest Aboveground Oil Storage Tank Capacity (Gallons): 298,000

Number of Aboveground Oil Storage Tanks: 85

Maximum Oil Storage Capacity (Gallons): 1,153,400

Worst Case Oil Discharge Amount (Gallons): 301,835

Facility Distance to Navigable Water. Mark the appropriate line:

0 - 1/4 mile X 1/4 - 1/2 mile _____ 1/2 - 1 mile _____ >1 mile _____

Applicability of Substantial Harm Criteria

Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____ No X (only as Mobile MTR)

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes X No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes X No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

Yes _____ No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____ No X

Certification

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

Signature: _____
Name (Please type or print): _____
Title: _____
Date: _____

TAB 15: DEFINITIONS

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15.0 DEFINITIONS

Adverse Weather —

The weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil.

These weather conditions will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice conditions, temperatures, weather-related visibility, and currents within the U.S. Coast Guard Captain of the Port zone in which the systems or equipment are intended to function.

The weather conditions considered by the operator in identifying the response systems and equipment to be deployed in accordance with a response plan, including wave height, ice, temperature, visibility, and currents within the inland or Coastal Response Zone (as defined in the National Contingency Plan [40 CFR 300]) in which those systems or equipment are intended to function.

Alteration —

Any work on a tank or related equipment involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of a tank.

Branch —

The organizational level having functional/geographic responsibility for major segments of the incident operations. The branch level is organizationally between the section and division/group.

Breakout Tank —

A tank used to:

- (1) relieve surges in an oil pipeline system or
- (2) receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Captain of the Port (COTP) Zone —

A zone specified in 33 CFR Part 3 and, where applicable, the seaward extension of that zone to the outer boundary of the Exclusive Economic Zone (EEZ).

Coastal Zone —

All United States waters subject to the tide, United States waters of the Great Lakes and Lake Champlain, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the National Contingency Plan, and the land surface or land substrate groundwaters, and ambient air proximal to those waters. (The term "coastal zone" delineates an area of federal responsibility for response action. Precise boundaries are determined by agreement between the Environmental Protection Agency and the U.S. Coast Guard and are identified in Federal Regional Contingency Plans and Area Contingency Plans.)

Compensable Values —

The values that humans have for services provided by resources including, but not limited to, commercial, ecological, special significance, and passive uses.

Complex Facility —

A facility possessing a combination of transportation-related and non-transportation-related components that are subject to their jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act.

Contracts or other approved means —

- (1) A written contractual agreement with a response contractor that identifies and ensures the availability of the necessary personnel or equipment within appropriate response times;
- (2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times;
- (3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic areas; or
- (4) Other specific arrangements approved by the EPA Regional Administrator upon request of the owner or operator.

Damages —

The amount of money calculated to compensate for injury to, destruction of, loss or use of natural resources, including the reasonable costs of assessing or determining the damage, which shall be recoverable by the United States, state, Indian tribe, or a foreign trustee.

Discharge —

Average Most Probable — [USCG] A discharge of the lesser of 50 barrels or 1 percent of the volume of the worst-case discharge.

Maximum Most Probable — [USCG] A discharge of the lesser of 1,200 barrels or 10 percent of the volume of a worst-case discharge.

Medium Spill — [EPA] Any spill volume greater than a small spill but equal to or less than 36,000 gallons, 10 percent of the capacity of the largest aboveground storage tank, or the worst-case discharge, whichever is less.

Small Spill — [EPA] Any spill volume less than or equal to 2,100 gallons but not to exceed the calculated worst-case discharge.

Worst-Case — [EPA] For an on-shore non-transportation-related facility, the largest foreseeable discharge in adverse weather conditions, based on the factors described in Appendix D to 40 CFR Part 112.

[RSPA] The largest foreseeable discharge of oil, including a discharge from fire or explosion in adverse weather conditions. This volume will be determined by each pipeline operator for each response zone and is determined as follows:

The pipeline's maximum release in time expressed in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such data, the operator's best estimate) multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) in the response zone expressed in barrels; or

The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken; or

If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system adjusted for the capacity or size of the secondary containment system, expressed in barrels.

[USCG] For and on-shore facility and deepwater port, the largest foreseeable discharge in adverse weather conditions meeting the following requirements:

The loss of the entire capacity of all in-line and breakout tank(s) needed for the continuous operation of the pipelines used for the purposes of handling or transporting oil, in bulk to or from a vessel regardless of the presence of secondary containment; plus

The discharge from all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the facility. The discharge from each pipe is calculated as follows: The maximum time to discover the release from the pipe in hours, plus the maximum time to shut down flow from the pipe in hours (based on historic discharge data or the best estimate in the absence of historic discharge data for the facility) multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum relief valve setting or maximum system pressure when relief valves are not provided) plus the total line drainage volume expressed in barrels for the pipe between the marine manifold and the non-transportation-related portion of the facility; and

For a mobile facility, the loss of the entire contents of the container in which the oil is stored or transported.

Environmentally Sensitive Area —

An area of environmental importance which is in or adjacent to navigable waters.

Exclusive Economic Zone —

The zone contiguous to the territorial sea of the United States extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

Facility Incident Commander —

The individual who is responsible for the management of incident operations up to the limits of the facility to respond. Under Navy policy the FIC and Facility Qualified Individual will be designated the same person.

Facility Qualified Individual —

The English-speaking representative of the facility (base), located in the United States, available on a 24-hour basis, with full authority to: activate and contract with required oil spill removal organization(s); activate personnel and equipment maintained by the operator; act as liaison with the OSC; and obligate any funds required to carry out all required or directed oil spill activities. Under Navy policy, the FQI and FIC will be the same person.

Facility that could reasonably be expected to cause significant and substantial harm —

[EPA] Any facility that has the potential to cause substantial harm as determined by the EPA Regional Administrator considers the following additional factors are considered:

- Proximity to environmental areas of concern defined in 40 CFR 112, Appendix C;
- Frequency of past spills;
- Proximity to navigable waters;
- Age of oil storage tanks; and
- Other facility-specific and region-specific impacts on public health

[RSPA] Any pipeline that is greater than 6 and 5/8 inches in outside nominal diameter, greater than 10 miles in length, and the line section:

- has experienced a release greater than 1,000 barrels within the previous five years,
- has experienced two or more reportable releases, as defined in 49 CFR 195.50, within the previous five years,
- Contains any electric resistance welded pipe, manufactured prior to 1970, operates at a maximum operating pressure established under 49 CFR 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe,
- Is located within a five mile radius of potentially affected public drinking water intakes and could reasonably be expected to reach public drinking water intakes, or
- Is located within a one mile radius of potentially affected environmentally sensitive areas, and could reasonably be expected to reach these areas.

SCG] Any marine transportation-related facility (including piping and any structures that are used for the transfer of oil between a vessel and the facility) classified as a "significant and substantial harm" facility under 33 CFR 154.1015 (c) including a facility specifically designated by the COTP under 33 CFR 154.101(a).

Facility that could reasonably be expected to cause substantial harm —

[EPA] (1) A facility that transfers oil over water to or from vessels and has a total storage capacity greater than or equal to 42,000 gallons; or

(2) A facility with a total oil storage capacity greater than or equal to one million gallons and one of the following is true:

- The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within each storage area;
- The facility is located at a distance (as calculated using the appropriate formula in 40 CFR 112 Attachment C-III or an alternative formula considered acceptable by the Regional Administrator such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments as defined in 40 CFR 112 Appendix C;
- The facility is located at a distance as calculated using the appropriate formula in 40 CFR 112 Attachment C-III or an alternative formula considered acceptable by the Regional Administrator such that a discharge from the facility would shut down a public drinking water intake; or
- The facility has had a reportable spill in an amount greater than or equal to 10,000 gallons within the last five years.

[RSPA] Not defined.

[USCG] Any marine transportation-related facility classified as a "substantial harm" facility under 33 CFR 154.1015(b) including a facility specifically designated by the COTP under 33 CFR 154.1016(a).

Federal On-Scene Coordinator (FOSC) —

The Federal Official designated by the Administrator of the EPA or by the Commandant of the USCG to coordinate and direct federal response under subpart D of the National Contingency Plan (40 CFR Part 300). The DOD is designated as the FOSC for all DOD hazardous substance spill response.

Great Lakes —

Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

Group —

A functional division (e.g., security, search and rescue).

High Volume Area —

An area where an oil pipeline having a nominal outside diameter of 20 inches or more crosses a major river or other navigable water, which, because of the velocity of the river flow and vessel traffic on the river, would require a more rapid response in case of a worst-case discharge or substantial threat of such a discharge. Appendix B to 49 CFR Part 194 contains a list of some of the high volume areas in the United States.

Higher Volume Port Areas —

33 CFR 154.10206 & 40 CFR 112 Appendix C

(1) Boston, MA; (2) New York, NY; (3) Delaware Bay and River to Philadelphia, PA; (4) St. Croix, VI; (5) Pascagoula, MS; (6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA; (7) Louisiana Offshore Oil Port, LA; (8) Lake Charles, LA; (9) Sabine-Neches River, TX; (10) Galveston Bay and Houston Ship Channel, TX; (11) Corpus Christi, TX; (12) Los Angeles/Long Beach Harbor, CA; (13) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch CA; (14) Straits of Juan De Fuca from Port Angeles, WA to and including Puget Sound, WA; (15) Prince William Sound, AK, and others as specified by the EPA regional Administrator

Incident Action Plan —

The plan, which is initially prepared at the first staff meeting after an oil spill occurs, that contains the general control objectives reflecting the overall strategy, and specific action plans for the next operational period. When complete, the incident action plan will have a number of attachments.

Incident Command System —

A system for controlling personnel, facilities, equipment, and communications during emergency response. The system is designed to begin developing from the time an incident occurs until the requirement for management and operations no longer exists. This system can be utilized for any type or size emergency, ranging from a minor spill to a major emergency response. It also allows for the timely combining of resources from different agencies/contractors.

Injury —

A measurable adverse change, either long or short term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil.

Inland Area —

The area shoreward of the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, the area shoreward of the lines of demarcation (COLREG lines) defined in 33 CFR §§ 80.740 through 80.850. The inland area does not include the Great Lakes.

Inland Zone —

The environment inland of the coastal zone excluding the Great Lakes, Lake Champlain, and specified ports and harbors on inland rivers. (The term inland zone delineates an area of federal responsibilities for response actions. Precise boundaries are determined by agreements between the Environmental Protection Agency and U.S. Coast Guard and are identified in the Federal Regional Contingency Plans.)

Line Section —

A continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a terminal or breakout tank, between a pressure pump station and a block valve, or between adjacent block valves.

Major River —

A river that because of its velocity and vessel traffic, would require a more rapid response in case of a worst-case discharge. For a list of rivers see "*Rolling Rivers, An Encyclopedia of America's Rivers*," Richard A Bartlett, Editor, McGraw-Hill Book Company, 1984.

Marine Transportation-Related Facility —

Any offshore facility or segment of a complex regulated under section 311(j) of the Federal Water Pollution Control Act (FWPCA) by two or more federal agencies including piping and any structure used or intended to be used to transfer oil to or from a vessel, subject to regulation under 33 CFR. For a facility or segment of a complex regulated by two or more federal agencies under section 311(j) of the FWPCA, the marine transportation-related portion of the complex extends from the facility oil transfer system's connection with the vessel to the first valve inside the secondary containment surrounding tanks in the non-transportation-related portion of the facility or, in the absence of secondary containment, to the valve or manifold adjacent to the tanks comprising the non-transportation-related portion of the facility, unless another location has otherwise been agreed to by the COTP and the appropriate Federal official.

Maximum Extent Practicable —

[Non-transportation-related facility] The limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst-case discharges from on-shore non-transportation-related facilities in adverse weather. The appropriate limitations for such planning are available technology and the practical and technical limits on an individual facility owner or operator.

[Transportation-related facility] The planned capability to respond to a worst-case discharge in adverse weather, as contained in a response plan that meets the criteria in 33 CFR or in a specific plan approved by the cognizant COTP.

[Pipeline] The limits of available technology and the practical and technical limits on a pipeline operator in planning the response resources required to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities for a worst-case discharge from a pipeline in adverse weather.

Natural Resource Damage Assessment —

The process by which trustees determine whether a resource has been injured and the loss associated with that injury, in order to effect restoration.

Natural Resources —

Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the exclusive economic zone), and state or local government, or Indian tribe, or foreign government.

Navigable Waters —

The waters of the United States, including the territorial sea and such waters which are used for recreation; waters from which fish or shell fish are taken and sold in interstate or foreign commerce.

Navy On-Scene Coordinator (NOSC) —

The NOSC is the Navy official predesignated to coordinate Navy OHS pollution contingency planning and direct Navy OHS pollution response efforts in a preassigned area. Shoreside NOSCs are normally the numbered fleet commanders who direct fleet operations within assigned ocean areas. The NOSC is the Federal OSC for Navy HS releases. The NOSC will act as the QI and incident commander for spills outside areas assigned to FICs, and as incident commander for spills beyond the capability of a FIC.

Nearshore Area —

The area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, the area extending seaward 12 miles from the line of demarcation (COLREG lines) as defined in 33 CFR §§ 80.740 through 80.850.

Non-Petroleum Oil —

Oil of any kind that is not petroleum-based. This category includes, but is not limited to, animal and vegetable oils.

Ocean —

The offshore area and nearshore area as defined in 33 CFR.

Offshore Area —

The area beyond 12 nautical miles measured from the boundary lines defined in 46 CFR Part 7 seaward to 50 nautical miles, except in the Gulf of Mexico. In the Gulf of Mexico, the area beyond 12 nautical miles of the line of demarcation (COLREG lines) defined in 33 CFR §§ 80.740 through 80.850 of this chapter extending seaward to 50 nautical miles.

Oil —

Oil of any kind or in any form, including, but not limited to, petroleum oil, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredge spoil.

Oil Groups —

Non-Persistent or Group I Oil —

A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions —

- (1) At least 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and
- (2) At least 95% of which by volume, distill at a temperature of 370 degrees C (700 degrees F).

Persistent oil —

A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of 33 CFR subpart F, persistent oils are further classified based on specific gravity as follows:

- (1) Group II — specific gravity less than 0.85
- (2) Group III — specific gravity between 0.85 and less than 0.95
- (3) Group IV — specific gravity from 0.95 and to and including 1.00
- (4) Group V — specific gravity greater than 1.00

Oil Spill Removal Organization (OSRO) —

An entity that provides response resources.

On-shore Oil Pipeline Facilities —

New and existing pipe, right-of-ways, and any equipment, facility, or building used in the transportation of oil located in, on, or under any land within the United States other than submerged land.

Operating Area —

Geographic location(s), such as Rivers and Canals, Inland, Great Lakes, or Offshore, in which a facility is handling, storing, or transporting oil.

Operating Environment —

Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

Operating in Compliance with the Plan —

Operating in compliance with the provisions of 33 CFR Subpart F including, ensuring the availability of the response resources by contract or other approved means, and conducting the necessary training and drills.

Operator —

A person who owns or operates on-shore oil pipeline facilities.

Passive Use Values —

The values placed on those resources that are not normally associated with a monetary amount, such as, an endangered species, migratory birds, national parks, etc.

Pipeline —

All parts of an on-shore pipeline facility through which oil moves, including but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

Regional Qualified Individual —

The English-speaking representative of the region (the Navy On-Scene Coordinator), located in the United States, available on a 24-hour basis, with full authority to: activate and contract with required oil spill removal organization(s); activate personnel and equipment maintained by the operator; act as liaison with the OSC; and obligate any funds required to carry out all required or directed oil spill activities. Under Navy policy, the RQI and the NOSC are the same person.

Repair —

Any work necessary to maintain or restore a tank or related equipment to a condition suitable for safe operation.

Response Activities —

The containment and removal of all from the land, water, and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to the public health or welfare or the environment.

Response Area —

The inland zone or coastal zone, as defined in this plan.

Response Plan —

The operator's core plan and the response zone appendices for responding to the maximum extent practicable, to a worst-case discharge of oil, or the substantial threat of such a discharge.

Response Resources —

The personnel, equipment, supplies, and other capabilities necessary to perform the response activities identified in a response plan.

Response Zone —

A geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide, spill response capabilities. The size of the zone is determined by the operator after considering available capability, resources, and geographic characteristics.

Rivers and Canals —

A body of water confined within the inland area, including the Intracoastal Waterways and other waterways artificially created for navigation, that has a project depth of 12 feet or less.

Specified Minimum Yield Strength —

The minimum yield strength, expressed in pounds per square inch, prescribed by the specification under which the material is purchased from the manufacturer.

Spill Management Team —

The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Stress Level —

The level of tangential or hoop stress, usually expressed as a percentage of specified minimum yield strength.

Substantial Threat of a Discharge —

Any incident or condition involving a facility that may create a risk of discharge of oil. Such incidents include, but are not limited to, storage tank or piping failures, aboveground or underground tank or pipeline leaks, fires, explosions, flooding, spills contained within the facility, or other similar occurrences.

Unit —

The organization element having functional responsibility for a specific incident planning, logistic, or finance activity.

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TAB 16: ACRONYMS

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16.0 ACRONYMS

This is a listing of acronyms associated with oil and hazardous substance spill response. Some are included in this plan while others are provided for reference purposes.

AC	Area Committee
ACP	Area Contingency Plan
ANSI	American National Standards Institute
AOR	Area of Responsibility
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
AST	Aboveground storage tank
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
BOA	Basic Ordering Agreement
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulations
CHRIS	Chemical Hazards Response Information System
CNO	Chief of Naval Operations
CO	Commanding Officer
COE	Corps of Engineers (U.S. Army)
CWA	Clean Water Act
DFM	Diesel fuel, marine
DLA	Defense Logistics Agency
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOJ	U.S. Department of Justice
DOL	U.S. Department of Labor
DON	U.S. Department of the Navy
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DRAT	District Response Advisory Team
DRG	District Response Group (USCG)
DRMO	Defense Reutilization and Marketing Office
EFA	Engineering Field Activity (of NAVFAC)
EFD	Engineering Field Division (of NAVFAC)
EHM	Extremely hazardous material
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERAP	Emergency Response Action Plan (of FRP)
ERT	Environmental Response Team
ESA	Endangered Species Act

FEMA	U.S. Federal Emergency Management Agency
FFA	Federal Facility Agreement
FIC	Facility Incident Commander
FLADEP	Florida Department of Environmental Protection
FOSC	Federal On-Scene Coordinator
FQI	Facility Qualified Individual
FR	Federal Register
FRERP	Federal Radiological Emergency Response Plan
FY	Fiscal year
GSA	General Services Administration
HAZMAT	Hazardous material
HHS	U.S. Department of Health and Human Services
HM	Hazardous material
HS	Hazardous substance
HW	Hazardous waste
ICS	Incident Command System
IFO	Intermediate fuel oil
IR	Installation Restoration (program)
JAG	Judge Advocate General
LEPC	Local Emergency Planning Committee
MGO	Marine gas oil
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
MSRC	Marine Spill Response Corporation
NACE	National Association of Corrosion Engineers
NAVFAC	Naval Facilities Engineering Command
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFESC	Naval Facilities Engineering Service Center
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NOSC	Navy On-Scene Coordinator
NRC	National Response Center (USCG)
NRDA	Natural Resources Damage Assessment
NRS	National Response System
NRT	National Response Team
NSCC	National Scheduling Coordinating Committee
NSF	USCG National Strike Force
NSFCC	USCG National Strike Force Coordination Center (Elizabeth City, NC)
NVIC	USCG Navigation and Inspection Circular
OPA 90	Oil Pollution Act of 1990 (Public Law 101-380 of 18 Aug 90)
OPNAVINST	CNO Instruction
OSC	On-Scene Coordinator
OSRO	Oil Spill Removal Organization (classified by NSFCC)
OSHA	Occupational Safety and Health Administration

PA	Pollution Abatement (funds)
PLA	Plain Language Address (Navy jargon)
POC	Point of contact
POL	Petroleum-oil-lubricant
PPE	Personal protective equipment
PREP	Preparedness-for-Response Exercise Program (USCG)
RA	Regional Administrator (EPA)
RCP	Regional Contingency Plan
RCRA	Resource Conservation and Recovery Act
RPM	Remedial Project Manager
RQ	Reportable quantity (of hazardous substances)
RQI	Regional Qualified Individual
RRC	Regional Response Center
RRT	Regional Response Team
SARA	Superfund Amendments and Reauthorization Act of 1986
SDWA	Safe Drinking Water Act of 1986
SECDEF	Secretary of Defense
SECNAV	Secretary of the Navy
SERC	State Emergency Response Commission
SI	Surface impoundment
SIC	Standard Industrial Classification (codes)
SONS	Spill of National Significance
SPCC	Spill Prevention, Control, and Countermeasures (plan)
SSC	Scientific Support Coordinator (NOAA)
SUPSALV	Supervisor of Salvage (Navy)
SWDA	Solid Waste Disposal Act
TSCA	Toxic Substance Control Act
UIC	Uniform Identification Code
UL	Underwriters Laboratory
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USNPS	U.S. National Park Service
UST	Underground storage tank
VOSS	Vessel of Opportunity Skimmer System

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TAB 17: REFERENCES

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17.0 REFERENCES

This is an annotated list of references of particular interest to OPA 90 facilities. A table of key American Petroleum Institute standards is also provided.

33 CFR 154. RESPONSE PLANS. U.S. DEPARTMENT OF TRANSPORTATION (COAST GUARD). FEDERAL REGISTER. The Coast Guard regulation on facility response plans for marine transportation-related facilities.

40 CFR 112. OIL POLLUTION PREVENTION. U.S. ENVIRONMENTAL PROTECTION AGENCY. FEDERAL REGISTER. The EPA proposed regulation on facility response plans for non-transportation-related facilities.

49 CFR 171. OIL SPILL PREVENTION AND RESPONSE PLANS. U.S. DEPARTMENT OF TRANSPORTATION (RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION). FEDERAL REGISTER. The RSPA regulation on facility response plans for bulk packaging (tank cars and tank trucks).

49 CFR 194. RESPONSE PLANS FOR ONSHORE OIL PIPELINES. U.S. DEPARTMENT OF TRANSPORTATION (RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION). FEDERAL REGISTER. The RSPA regulation on facility response plans for pipelines off a facility's property.

INTERAGENCY AGREEMENT (IAA) BETWEEN THE UNITED STATES NAVY AND THE UNITED STATES COAST GUARD FOR COOPERATION IN OIL SPILL CLEAN-UP OPERATIONS AND SALVAGE OPERATIONS. SIGNED IN 1980. A mutual aid agreement concerning oil spill clean-up and salvage operations.

MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY. SIGNED 24 NOV 1971. PUBLISHED AT 36 FR 24080. This agreement established what kinds of facilities were transportation-related (DOT-regulated) and what kinds were non-transportation-related (EPA regulated). For OPA 90 purposes, its main significance is that it set the jurisdictional boundaries between a marine transportation-related facility (USCG regulated) and an associated oil storage facility (EPA regulated). The boundary is the valve furthest from the tank(s) but still inside secondary containment if such containment exists, and the valve or manifold nearest the tank(s) otherwise.

OPNAVINST 5090.1B. ENVIRONMENTAL AND NATURAL RESOURCES PROGRAM MANUAL. DEPARTMENT OF THE NAVY. The Navy's guidance document on environmental matters, including oil and hazardous substance spills.

PREPAREDNESS-FOR-RESPONSE EXERCISE PROGRAM (PREP) GUIDELINES. Any facility intending to follow PREP in lieu of individual regulation exercise requirements must use this document to understand commitments resulting from its use. Available by request from the Coast Guard: (202) 267-2616 in 1993.

KEY INDUSTRIAL STANDARDS				
ISSUER	TYPE	NO.	TITLE	COMMENTS
API	Std	620	Design and Construction of Large, Welded, Low-Pressure Storage Tanks	
API	Std	650	Welded Steel Tanks for Oil Storage	
API	RP	651	Cathodic Protection of Aboveground Petroleum Storage Tanks	
API	RP	652	Lining of Aboveground Petroleum Storage Tank Bottoms	
API	Std	653	Tank Inspection, Repair, Alteration, and Reconstruction	
API	Std	2000	Venting Atmospheric and Low-Pressure Storage Tanks (Non-refrigerated and Refrigerated)	
Issuers: API American Petroleum Institute (Publications Dept: (202) 682-8375)			Type standards: Std Standard RP Recommended Practice	

TAB 18: MAPS

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18.0 MAPS

The following maps, as may be referenced in the FRP sections of the NAS Key West Facility Response Plan, can be found in Tab J of the ERAP.

ERAP MAP #1:	Regional Map
ERAP MAP #1-1:	Site Plan, Boca Chica Field, Plan Areas
ERAP MAP #1-1A:	Site Plan, Boca Chica Field, Plan Areas (Industrial Area)
ERAP MAP #1-1B:	Tank Farm Boca Chica Field
ERAP MAP #1-2:	Site Plan, Truman Annex, Plan Areas
ERAP MAP #1-3:	Site Plan, Trumbo Point, Plan Areas
ERAP MAP #1-4:	Site Plan, Sigsbee Park, Plan Areas
ERAP MAP #1-5:	Site Plan, Transmitter Site (Saddlebunch Key), Plan Areas
ERAP MAP #1-6:	Site Plan, Fleming Key, Plan Areas
ERAP MAP #1-7:	Site Plan, Naval Hospital, Plan Areas
ERAP MAP #1-8:	Wind Rose
ERAP MAP #2:	Sensitive Areas and Protection Strategies (Miami ACP Map 35)
ERAP MAP #3:	Sensitive Areas and Protection Strategies (Miami ACP Map 36)
ERAP MAP #4:	Sensitive Areas and Protection Strategies (Miami ACP Map 38)
ERAP MAP #5:	Sensitive Areas and Protection Strategies (Miami ACP Map 39)
ERAP MAP #6:	Sensitive Areas and Protection Strategies (Miami ACP Map 40)
ERAP MAP #7:	Bulk Fuel Storage Transfer Pipeline
ERAP MAP #8:	Truck Fuel Farm Transfer Pipeline
ERAP MAP #9:	Spill Containment Strategy Map Boca Chica Field
ERAP MAP #10:	Spill Containment Strategy Map Boca Chica Field Culvert 1
ERAP MAP #11:	Spill Containment Strategy Map Boca Chica Field Culvert 2
ERAP MAP #12:	Spill Containment Strategy Map Boca Chica Field Culverts 3 and 4
ERAP MAP #13:	Tank Farm Boca Chica Field Plan Areas Boca Chica Drainage Basins Boca Chica Outfalls Sigsbee Drainage Basins Truman Annex Drainage Basins Trumbo Point Drainage Basins

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APPENDIX A — CROSS REFERENCE LIST

The following tables provide a regulatory compliance cross reference matrix to demonstrate NAS Key West Facility Response Plan compliance with U.S. Environmental Protection Agency (USEPA) Non-Transportation Related (NTR) and U.S. Coast Guard Marine Transportation Related (MTR) OPA 90 regulations.

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CROSS REFERENCE

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
1. Emergency Response Action Plan																	
<i>Qualified Individual Information</i>																	
Emergency Notification Phone List																	
Spill Response Notification Form																	
<i>Response Equipment List and Location</i>																	
<i>Response Equipment Testing and Deployment</i>																	
Facility Response Team																	
Evacuation Plan																	
Immediate Actions																	
Facility Diagram												X					
2. Facility Information																	
<i>a. Facility Name and Location</i>																	
Street Address																	
City																	
County																	
State																	
ZIP Code																	
Telephone Number																	
<i>b. Main Entrance Latitude and Longitude</i>																	
<i>c. Wellhead Protection Area</i>																	
<i>d. Name of Facility Owner and Operator</i>																	
Address of Owner if Different																	
<i>e. Name of Qualified Individual</i>																	
Position																	
Address																	

CROSS REFERENCE

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
Emergency Phone Number																	
Training Experience																	
b. Date of Oil Storage Start-Up																	
c. Current Operation Description and SIC Code																	
d. Dates and Type of Substantial Expansion																	
e. Date of Last Update																	
3. Emergency Response Information																	
a. Emergency Notification Phone List																	
b. Spill Response Notification Form																	
c. Emergency Response Equipment List:																	
d. Response Equipment Tests and Deployment Drills																	
e. Response Personnel																	
i. Emergency Response Personnel List																	
Name, Phone, Response Time, Responsibility, and Training Type and Date																	
iii. Emergency Response Contractors														X			
Name, Phone, Response Time, Responsibility, and Evidence of Contracts/Agreements														X			
ii. Facility Response Team																	
Coordinator, Response Time, and Day/Evening Phone																	
e. Evacuation Plans																	
f. Qualified Individual Duties																	
4. Hazard Evaluation																	
a. Hazard Identification:																	
i. Above and Below Ground Tanks-																	

CROSS REFERENCE

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
ID, Maximum Capacity, Substance Stored, Quantity, Tank Type, Year Installed, and Cause and Date of Any Tank Failure Resulting in Spill																	
ii. Surface Impoundments																	
ID, Maximum Capacity, Substance Stored, Quantity, Surface Area, Year Put in Service, and Cause and Date of Any Failure Resulting in Spill																	
iii. Facility Schematic Showing Tanks and Surface Impoundments												X					
iv. Facility Operations-																	
Truck, Railroad Car, and Vessel Transfer Operations and Transfer Volumes Involved																	
Daily Operations Presenting Risk of Spills and Volumes Involved																	
Secondary Containment Volume Associated With Each Tank and Transfer Point																	
Normal Daily Throughput for Facility and Effect of Changes on Potential Release Volumes																	
b. Vulnerability Analysis																	
c. Analysis of the Potential for an Oil Spill																	
i. Facility Reportable Oil Spill History																	
Discharge Date																	
Cause																	
Material Discharged																	
Amount																	
Amount Reaching Navigable Waters																	
Effectiveness and Capacity of Secondary Containment																	
Clean-Up Actions																	
Steps to Reduce Recurrence																	
Tank or Impoundment Storage Capacity From Which Discharged																	
Enforcement Actions																	

CROSS REFERENCE

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
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Monitoring Equipment Effectiveness																	
Detection of Spills																	
8. Discharge Scenarios																	
a. Small and Medium Discharge																	
b. Worst-Case Discharge																	
9. Discharge Detection System																	
a. Discharge Detection by Personnel																	
Procedures and Personnel During Regular Operations and After Hours and Initial Response Actions																	
b. Automated Discharge Detection-																	
Equipment, Verification Plan, and Post-Verification Actions																	
10. Plan Implementation																	
a. Response Resources for Small, Medium, and Worst-Case Spills																	
i. Resources for Responding to Spill Scenarios																	
ii. Emergency Plans for Spill Response																	
iii. Additional Training																	
iv. Access to Additional Equipment and Experts																	
v. Ability to Implement Plan Including Training and Practice Drills																	
b. Disposal Plans																	
i. Recovery, Reuse, Decontamination, and Disposal Methods																	
ii. Transportation/Disposal Permits																	
iii. Recovered Product, Contaminated Soil, Equipment and Materials, Personal Protective Equipment, Decontamination Solutions, Adsorbents, and Spent Chemicals																	
c. Containment and Drainage Planning																	
Containment Volume																	
Route of Drainage From Storage and Transfer Areas																	

CROSS REFERENCE

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
Drainage Trough Construction Materials																	
Valve and Separator Types and Numbers																	
Sump Pump Capacities																	
Capacities and Locations of Weirs and Booms																	
Other Cleanup Materials																	
13. Self-Inspection, Drills/Exercises, and Response Training	X																
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Tank, Surface Impoundment, and Secondary Containment	7-3																
Response Equipment	7-3																
b. Facility Drills/Exercises		8-34															
c. Response Training		8-32															
Personnel Training Log		8-31															
Discharge Prevention Meetings Log		8-42															
14. Diagrams												X					
a. Site Plan Diagram												X					
Scaled Drawing of Facility												X					
Above and Below Ground Storage Tanks												X					
Contents and Capacities of Storage Tanks												X					
Contents and Capacities of Impoundments																	
Process Buildings																	
Transfer Areas												X					
Location and Capacities of Secondary Containment Systems												X					
Hazardous Materials Storage Structures, Storage Capacities, and Materials Stored												X					
Communication and Response Equipment Locations												X					
Locations of Electrical Equipment Which Contains Oil																	

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EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
b. Site Drainage Plan Diagram												X					
Major Sanitary and Storm Sewers, Manholes, and Drains												X					
Weirs and Shut-Off Valves																	
Surface Water Receiving Streams												X					
Fire Fighting Water Sources												X					
Other Utilities																	
Response Personnel Ingress and Egress												X					
Equipment Transportation Routes												X					
Direction of Spill Flow												X					
c. Site Evacuation Plan Diagram												X					
Evacuation Routes												X					
Regrouping Area Locations																	
16. Security			9-3														

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EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 1	1	2	3	4	5	6
1. Emergency Response Action Plan																	
Qualified Individual	A-3																
Emergency Notification Phone List		B-3											2-3				
Spill Response Notification Form			C-3										2-7				
Response Equipment List and Location						X							2-15				
Response Equipment Testing and Deployment						X							2-14				
Facility Response Team					E-12								2-26				
Evacuation Plan									I-3				2-30				
Immediate Actions				D-3													
Facility Diagram										X							
2. Facility Information												1-3					
a. Facility Name and Location												1-3					
Street Address												1-3					
City												1-3					
County												1-3					
State												1-3					
ZIP Code												1-3					
Telephone Number												1-3					
b. Main Entrance Latitude and Longitude												1-3					
c. Wellhead Protection Area																	
d. Name of Facility Owner and Operator												1-3					
Address of Owner if Different																	
e. Name of Qualified Individual												1-3					
Position												1-3					
Address												1-3					

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EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
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Emergency Phone Number	A-3											1-3					
Training Experience					E-12												
f. Date of Oil Storage Start-Up												1-4					
g. Current Operation Description and SIC Code												1-4					
h. Dates and Type of Substantial Expansion												1-4					
i. Date of Last Update																	
3. Emergency Response Information																	
a. Emergency Notification Phone List		B-3											2-3				
b. Spill Response Notification Form			C-3										2-7				
c. Emergency Response Equipment List:						X							2-14				
d. Response Equipment Tests and Deployment Drills						X							2-15				
e. Response Personnel:					E-12												
i. Emergency Response Personnel List					E-12												
Name, Phone, Response Time, Responsibility, and Training Type, and Date					E-12												
ii. Emergency Response Contractors					E-31												
Name, Phone, Response Time, Responsibility, and Evidence of Contracts/Agreements					E-12												
iii. Facility Response Team					E-12												
Coordinator, Response Time, and Day/Evening Phone					E-42												
e. Evacuation Plans									1-3				2-26				
f. Qualified Individual Duties					E-4												
4. Hazard Evaluation														3-3			
a. Hazard Identification:														3-3			
i. Above and Below Ground Tanks														3-3			

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EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 1	1	2	3	4	5	6
ID, Maximum Capacity, Substance Stored, Quantity, Tank Type, Year Installed, and Cause and Date of Any Tank Failure Resulting in Spill														3-3			
ii. Surface Impoundments																	
ID, Maximum Capacity, Substance Stored, Quantity, Surface Area, Year Put in Service, and Cause and Date of Any Failure Resulting in Spill																	
iii. Facility Schematic Showing Tanks and Surface Impoundments										X							
iv. Facility Operations														3-6			
Truck, Railroad Car, and Vessel Transfer Operations and Transfer Volumes Involved														3-6			
Daily Operations Presenting Risk of Spills and Volumes Involved														3-6			
Secondary Containment Volume Associated With Each Tank and Transfer Point														3-6			
Normal Daily Throughput for Facility and Effect of Changes on Potential Release Volumes														3-8			
b. Vulnerability Analysis														3-10	X		
c. Analysis of the Potential for an Oil Spill														3-23			
i. Facility Reportable Oil Spill History-														3-25			
Discharge Date														3-25			
Cause														3-25			
Material Discharged														3-25			
Amount														3-25			
Amount Reaching Navigable Waters														3-25			
Effectiveness and Capacity of Secondary Containment														3-25			
Clean-Up Actions														3-25			
Steps to Reduce Recurrence														3-25			
Tank or Impoundment Storage Capacity From Which Discharged														3-25			
Enforcement Actions														3-25			

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EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
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	A	B	C	D	E	F	G	H	I	J	Annex 1	1	2	3	4	5	6
Monitoring Equipment Effectiveness														3-25			
Detection of Spills														3-25			
5. Discharge Scenarios															X		
a. Small and Medium Discharge															4-7		
b. Worst-Case Discharge																5-3	
6. Discharge Detection System																5-3	
a. Discharge Detection by Personnel																5-3	
Procedures and Personnel During Regular Operations and After Hours and Initial Response Actions																5-3	
b. Automated Discharge Detection																5-4	
Equipment, Verification Plan, and Post-Verification Actions																	
7. Plan Implementation																	X
a. Response Resources for Small, Medium, and Worst-Case Spills																	6-3
i. Resources for Responding to Spill Scenarios																	6-3
ii. Emergency Plans for Spill Response																	6-13
iii. Additional Training																	6-13
iv. Access to Additional Equipment and Experts													2-26				6-12
v. Ability to Implement Plan Including Training and Practice Drills																	6-13
b. Disposal Plans									X								6-16
i. Recovery, Reuse, Decontamination, and Disposal Methods								H-3									6-17
ii. Transportation/Disposal Permits								H-3									6-18
iii. Recovered Product, Contaminated Soil, Equipment and Materials, Personal Protective Equipment, Decontamination Solutions, Adsorbents, and Spent Chemicals								H-3									6-18
c. Containment and Drainage Planning																	6-19
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	A	B	C	D	E	F	G	H	I	J	Annex 1	1	2	3	4	5	6
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Valve and Separator Types and Numbers																	
Sump Pump Capacities																	
Capacities and Locations of Weirs and Booms																	
Other Cleanup Materials																	
8. Self-Inspection, Drills/Exercises and Response Training																	
a. Facility Self-Inspection																	
Tank, Surface Impoundment and Secondary Containment																	
Response Equipment																	
b. Facility Drills/Exercises																	
c. Response Training																	
Personnel Training Log																	
Discharge Prevention Meetings Log																	
9. Diagrams											X						
a. Site Plan Diagram											X						
Scaled Drawing of Facility											X						
Above and Below Ground Storage Tanks											X						
Contents and Capacities of Storage Tanks											X						
Contents and Capacities of Impoundments																	
Process Buildings																	
Transfer Areas											X						
Location and Capacities of Secondary Containment Systems											X						
Hazardous Materials Storage Structures, Storage Capacities, and Materials Stored											X	X					
Communication and Response Equipment Locations											X						
Locations of Electrical Equipment Which Contains Oil																	

EPA NTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 1	1	2	3	4	5	6
b. Site Drainage Plan Diagram										X							
Major Sanitary and Storm Sewers, Manholes, and Drains										X							
Weirs and Shut-Off Valves																	
Surface Water Receiving Streams										X							
Fire Fighting Water Sources										X							
Other Utilities																	
Response Personnel Ingress and Egress										X							
Equipment Transportation Routes										X							
Direction of Spill Flow										X							
c. Site Evacuation Plan Diagram										X							
Evacuation Routes										X							
Regrouping Area Locations																	
10. Security																	

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Response Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 2	1	2	3	4	5	6
1. Introduction and Plan Contents (Refer to Introduction))												1-3					
a. Facility Name												1-3					
Street Address												1-3					
City												1-3					
County												1-3					
State												1-3					
ZIP Code												1-3					
Telephone Number												1-3					
FAX Number (If equipped)												1-3					
b. Facility Location												1-3					
c. Facility Owner/Operator Name												1-3					
Address												1-3					
Procedure for 24-Hr Contact												1-3					
d. Table of Contents (Refer to Table of Contents)																	
e. Cross Index																	
f. Record of Changes (Refer to Record of Changes)																	
2. Emergency Response Action Plan																	
a. Notification Procedures		B-3															
i. Name, Telephone, and Role For																	
Facility Response Personnel					E-12								2-13				
Spill Management Team					E-14								2-13				
Oil Spill Removal Organizations					E-15								2-14				

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Response Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 2	1	2	3	4	5	6
Qualified Individual & Alternate	A-3											1-3					
Federal, State, or Local Agencies		B-3											2-4				
ii. Discharge Notification Form			C-3										2-7				
b. Facility Spill Mitigation Procedures				D-3												X	
i. Non-Persistent and Persistent Oil:																X	
Average Most Probable Discharge																4-4	
Maximum Most Probable Discharge																4-7	
Worst-Case Discharge																4-11	
Worst-Case Discharge From Non-Transportation-Related Facility																4-12	
ii. Prioritized Procedures For Preventing/Mitigating Spills Involving:				X													
Transfer Equipment Failures				D-7													
Tank Overfill				D-8													
Tank Failure				D-13													
Piping Rupture				D-9													
Pipe Leaks				D-14													
Explosion or Fire				D-12													
Equipment Failure				D-11													
iii. Equipment List and Responsibilities of Facility Personnel for Mitigating an Average Most Probable Discharge						X							X				
c. Facility's Response Activities				X	X												
i. Facility Response Personnel Responsibilities Pending Arrival of Qualified Individual (Refer to Red Plan)				D-3													
ii. Responsibility and Authority of Qualified Individual and Alternate					E-4												

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Response Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 2	1	2	3	4	5	6
iii. Facility Response Management:																	
Command and Control					E-7							x					
Public Information					E-12							x					
Safety					E-10							X					
Liaison with Government Agencies					E-11							X					
Spill Operations					E-14							X					
Planning					E-25							X					
Logistics Support					E-30							X					
Finance					E-39							x					
iv. Identification of Oil Spill Removal Organization and Management Team Capable of Responding to Average and Maximum Most Probable and Worst-Case Discharges with Required Equipment and Supplies and Trained Personnel for 1st 7 Days of Response					E-3	F-15											6-3
d. Sensitive Areas							X										
i. Identification of Sensitive Areas Impacted by Worst-Case Discharge							G-5										
ii. Worst-Case Discharge Impact:							X							3-11			
List of Sensitive Areas Impacted by Discharge of Non-Persistent, Persistent or Non-Petroleum Oils							G-4							3-15			
Description of Protection Actions (Refer to Red Plan)							G-5							3-15			
Sensitive Area Map with Depiction of Response Actions										X				3-15			
iii. Required Equipment and Personnel to Protect Sensitive Areas in Worst-Case Discharge:							G-7										
All Sensitive Areas for Required Distances, Type Oil, Area, and Days						E-3	G-3,10										

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Response Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 2	1	2	3	4	5	6
Equipment and Personnel Available by Contract or Other Approved Means					E-3	F-15							2-24				
e. Disposal Plan								H-3									6-16
3. Hazard Evaluation (Reserved)														3-3			
4. Discussion of Spill Scenario (Reserved)															X		
5. Training and Drills																	
a. Training Procedures																	
i. Identification of Training for Each Individual with Responsibilities in Plan and Method of Training for Volunteers and Casual Laborers																	
ii. Recordkeeping Requirements																	
b. Drill Procedures																	
i. Type and Frequency of Drills																	
ii. Recordkeeping Requirements																	
6. Plan Review and Update																	
a. Requirements and Procedures for Plan Review and Update																	
b. Procedures for Post-Discharge Review and Plan Evaluation and Validation																	
7. Appendices																	
a. Facility-Specific Information																	
i. Physical Description with Plan:																	
Mooring Areas											X						
Transfer Locations											X						
Control Stations											X						

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Emergency Response Action Plan (Tab Section)											Facility Response Plan (Tab Section)					
	A	B	C	D	E	F	G	H	I	J	Annex 2	1	2	3	4	5	6
Locations of Safety Equipment						F-13				X							
Locations and Capacities of All Piping and Storage Tanks										X				3-3			
ii. Size, Type, and Number of Vessels Facility Can Transfer Oil To and From Simultaneously																	
iii. Identification of 1st Valve(s) on Facility Piping Separating the Transportation-Related Portion From the Non-Transportation-Related Portion																	
iv. Information on Oil and Hazardous Material Handled, Stored or Transported at the Facility in Bulk										X				3-3			
b. List of Contacts:		B-3											2-3				
Qualified Individual and Alternate		B-3											2-3				
Oil Spill Response Resources		B-3											2-3				
Appropriate Federal, State, and Local		B-3											2-3				
c. Equipment List and Records						F-3							2-14				
i. List of Equipment and Personnel to Respond to Average Most Probable Discharge and Equipment Location						F-3							2-14				
ii. List of Major Equipment of Oil Spill Removal Organization to Respond to a Worst-Case Discharge and Equipment Location					E-3	F-15							2-14				
d. Communication Plan:																	
Primary and Alternate Means At Facility and Remote Locations																	
e. Site Specific Safety and Health Plan																	
f. List of Acronyms and Definitions																	

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
1. Introduction and Plan Contents																	
a. Facility Name																	
Street Address																	
City																	
County																	
State																	
ZIP Code																	
Telephone Number																	
FAX Number (If equipped)																	
b. Facility Location																	
c. Facility Owner/Operator Name																	
Address																	
Procedure for 24-Hr Contact																	
d. Table of Contents																	
e. Cross Index													X				
f. Record of Changes																	
2. Emergency Response Action Plan																	
a. Notification Procedures																	
i. Name, Telephone, and Role For																	
Facility Response Personnel																	
Spill Management Team																	
Oil Spill Removal Organizations																	
Qualified Individual & Alternate																	
Federal, State, or Local Agencies																	

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
ii. Discharge Notification Form																	
b. Facility Spill Mitigation Procedures															X		
i. Non-Persistent and Persistent Oil:															X		
Average Most Probable Discharge															X		
Maximum Most Probable Discharge															X		
Worst-Case Discharge															X		
Worst-Case Discharge From Non-Transportation-Related Facility															X		
ii. Prioritized Procedures For Preventing/Mitigating Spills Involving:																	
Transfer Equipment Failures																	
Tank Overfill																	
Tank Failure																	
Piping Rupture																	
Pipe Leaks																	
Explosion or Fire																	
Equipment Failure																	
iii. Equipment List and Responsibilities of Facility Personnel for Mitigating an Average Most Probable Discharge																	
c. Facility's Response Activities																	
i. Facility Response Personnel Responsibilities Pending Arrival of Qualified Individual																	
ii. Responsibility and Authority of Qualified Individual and Alternate																	
iii. Facility Response Management:																	
Command and Control																	
Public Information																	
Safety																	

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
Liaison with Government Agencies																	
Spill Operations																	
Planning															X		
Logistics Support														X			
Finance																	
iv. Identification of Oil Spill Removal Organization and Management Team Capable of Responding to Average and Maximum Most Probable and Worst-Case Discharges with Required Equipment and Supplies and Trained Personnel for 1st 7 Days of Response																	
d. Sensitive Areas																	
i. Identification of Sensitive Areas Impacted by Worst-Case Discharge																	
ii. Worst-Case Discharge Impact:																	
List of Sensitive Areas Impacted by Discharge of Non-Persistent, Persistent or Non-Petroleum Oils																	
Description of Protection Actions												X					
Sensitive Area Map with Depiction of Response Actions												X					
iii. Required Equipment and Personnel to Protect Sensitive Areas in Worst-Case Discharge:																	
All Sensitive Areas for Required Distances, Type Oil, Area and Days												X					
Equipment and Personnel Available by Contract or Other Approved Means														X			
e. Disposal Plan																	
3. Hazard Evaluation (Reserved)																	
4. Discussion of Spill Scenario (Reserved)																	
5. Training and Drills		8-3															
a. Training Procedures		8-3															

CROSS REFERENCE

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
i. Identification of Training for Each Individual with Responsibilities in Plan and Method of Training for Volunteers and Casual Laborers		8-3															
ii. Recordkeeping Requirements		8-36															
b. Drill Procedures		8-34															
i. Type and Frequency of Drills		8-32															
ii. Recordkeeping Requirements		8-32															
6. Plan Review and Update						X											
a. Requirements and Procedures for Plan Review and Update						12-3											
b. Procedures for Post-Discharge Review and Plan Evaluation and Validation						12-3											
7. Appendices																	
a. Facility-Specific Information																	
i. Physical Description with Plan																	
Mooring Areas												X					
Transfer Locations												X					
Control Stations												X					
Locations of Safety Equipment												X					
Locations and Capacities of All Piping and Storage Tanks												X					
ii. Size, Type and Number of Vessels Facility Can Transfer Oil To and From Simultaneously																	
iii. Identification of 1st Valve(s) on Facility Piping Separating the Transportation-Related Portion From the Non-Transportation-Related Portion																	
iv. Information on Oil and Hazardous Material Handled, Stored or Transported at the Facility in Bulk												X					
b. List of Contacts:																	

USCG MTR FACILITY REQUIRED RESPONSE PLAN SECTIONS	COMPLEX FACILITY RESPONSE PLAN SECTIONS																
	Facility Response Plan (Tab Section) Cont.												Appendices				
	7	8	9	10	11	12	13	14	15	16	17	18	A	B	C	D	E
Qualified Individual and Alternate																	
Oil Spill Response Resources														X			
Appropriate Federal, State, and Local																	
c. Equipment List and Records																	
i. List of Equipment and Personnel to Respond to Average Most Probable Discharge and Equipment Location																	
ii. List of Major Equipment of Oil Spill Removal Organization to Respond to a Worst-Case Discharge and Equipment Location																	
d. Communication Plan:																	
Primary and Alternate Means At Facility and Remote Locations				10-3													
e. Site Specific Safety and Health Plan					11-3												
f. List of Acronyms and Definitions										15-3	16-3						

APPENDIX B — RESPONSE SUPPORT AGREEMENTS

The following OSROs have been identified as primary response contractors for NAS Key West:

1. Southern Waste Services
2. Clean Caribbean
3. Cliff Berry

Each of these OSROs can be activated through the NOSC on behalf of NAS Key West through the BOA Ordering Agreement. The NOSC will coordinate with SOUTHNAVFACENGCOM and NAS Key West to activate response resources commensurate with the scope of the incident and the needs of the facility.

This Appendix includes a copy of the BOA Standard Operating Procedure; and a listing, sorted by state and current as of January 2000, of contractors participating in the BOA program. An updated listing of BOA contractors can be viewed at:

http://www.uscg.mil/MLCLANT/FDIV/BOAs/BOA_In_Effect_List.xls

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**Standard Operating Procedure
BOA CONTRACT ACTIVATION
For OHS SPILL RESPONSE**

1.0 INTRODUCTION

In the event of an oil or hazardous substance spill, the NAVAL ON-SCENE COORDINATOR (NOSC) may request spill response services from a U.S. COAST GUARD Basic Ordering Agreement (BOA) CONTRACTOR.

The SOUTHDIV Contracting Department, Code 02, can award a delivery order on a BOA Contract.

2.0 SOUTHDIV ACTIONS

2.1 OBTAIN INFORMATION ABOUT THE SPILL

Code 02 will need the following information that should be provided by the NOSC or his on-scene representative:

1. The name and telephone number of the requesting NOSC. Activity level personnel are not authorized to initiate BOA Contract actions.
2. The name and telephone number of an on-site NOSC representative who has knowledge of the actual conditions at the spill site. This individual is normally the Facility Incident Commander (FIC) at the Activity.
3. The exact location of the spill.
4. An accurate description of the type and quantity of the spilled material.
5. A specific scope of required services.
6. A cost estimate for the total initial response.
7. Accounting Data for funds in the amount of the estimated cost of the total initial response, item 6 above. (There will be no mark-up for SIOH on these funds.)
8. The BOA contractor(s) to be activated. Several contractors should be named in the event that some may not be able to respond. An order of preference should be established if possible.

2.2 REQUEST CONTRACT ACTION BY CONTRACTING OFFICER

Provide Code 02 with a written summary of the information listed above for action to award a BOA Contract delivery order.

The telephone numbers of the Southern Division Contracting Officers who have the necessary authority are listed on the first page of this SOP.

If the request is received outside normal working hours, the Duty Officer should use the emergency callback list to request Code 02 contract action.

2.3 NOTIFICATION OF OTHER SOUTH DIV PERSONNEL

Also notify (for information only):

OPERATIONS OFFICER

Cdr Kahler, Robert B.	Code 44	extension 5778
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ENVIRONMENTAL DEPARTMENT

Department Head

Allison, Sidney L.	Code 18	extension 5600
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Deputy Department Head

McCauley, Joseph L.	Code 18A	extension 5500
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Environmental Services Manager

Dangerfield, Douglas M.	Code 18E1	extension 5691
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3.0 BACKGROUND

The Navy's involvement with Basic Ordering Agreement (BOA) contracts originated following the implementation of EPA Federal regulations that derived from the Oil Pollution Act of 1990 (OPA 90). OPA 90 requires that Naval Activities, who are subject to the Act, be able to respond to their calculated worst case oil spill discharge volume amounts. Most Naval Activities lack adequate in-house resources, both equipment and personnel, to meet this worst case requirement. Because of this, the Naval Facilities Engineering Command (NAVFAC) negotiated an Interagency Agreement (IA) with the United States Coast Guard allowing the Navy access to the Coast Guard's nationwide network of oil and hazardous substance spill response contractors. These BOA Contracts set prices for equipment and personnel. Only Regional Naval On-Scene Coordinators (NOSCs) have the authority to initiate actions under a BOA contract. **Naval Activity level personnel are not authorized to initiate direct action under a BOA.** Naval Activities must request assistance from their NOSC in order to gain access to the BOA program. This request for assistance is normally done by the Facility Incident Commander (FIC).

The BOA Contracts do not involve a retainer, nor do they guarantee any minimum contract amount. **Contractors are not bound to respond to BOA orders.** This possible lack of contractor response is countered by having multiple BOA contractors covering the same geographic area.

The BOA contracts are awarded by Coast Guard Districts, not EPA/Navy Regional Command Areas. These BOA Contracts occasionally change due to some contractors dropping out of the program and others joining in. It is very important for NOSCs to always have the latest listing of BOA contractors on-line to provide services in their AOR.

A current list of BOA Contracts can be found on the following Coast Guard web site:

<http://www.uscg.mil/mlclant/FDiv/fcp-2.html>

3.1 COAST GUARD MANDATED REQUIREMENTS FOR BOA USE BY THE NAVY

All delivery orders placed under BOA Contracts must:

- Be signed by a warranted NAVFAC Contracting Officer
- Be authorized on the basis of "unusual and compelling urgency" when contracting for emergency clean-up
- Cite a NOSC/OSC as being in operational control of the clean-up
- Be fully funded
- Cite the Navy administration and paying office and designate a consignee in Block 14 of the DD1155, including commercial phone number, who will certify receipt and acceptance of supplies/services
- Any interest accrued on contractor invoices will be paid by the funding source
- The Navy will resolve all disputes arising from its delivery orders, and will pay for any disputes resolved in the contractors' favor
- The Navy does not have the authority to amend or add to any prices, terms, or conditions of any Coast Guard BOAs.
- If a BOA contractor is needed simultaneously by the Navy and the Coast Guard, contractor will respond to the spill, which could cause the greatest damage.

3.2 CONTRACT ACTIVATION PROCEDURE

NOSCs can activate BOA Contracts only through SOUTHDIV.

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BRIGHT YELLOW- UPDATED INFO
 GREEN- BEHIND SCHEDULE
 RED- BOAS TO BE CANCELLED

BOA IN EFFECT LIST

COMPANY	ADDRESS	CITY	ST	ZIP CODE	PHONE	STREET ADDRESS	POC	BOA NO.	ORIG. BOA DATE	RENEWAL DATE	TYPE OF SERV	DIST. SERV. AREAS	SPEC INIT.
85 OIL RECOVERY COMPANY	P. O. Box 1803	Mobile	AL	36633	(334) 690-9010	1101 S. Conception Street, Mobile, AL 36602	Ken Sedlack	DTCG84-98-A-800048	03/27/98	03/25/00	B/O/H/D/A/V	8	MR MB
8 BAKER TANKS	3020 Old Ranch Pkwy Suite 220	Seal Beach	CA	90740-2751	(562) 430-6262 EXT 344 (562) 430-4865	Same	Mark Seretan Contract Admin. Manager	DTCG84-99-A-500034 MOD 0001	10/01/99	09/30/01	O/H/ SU	8,5	JD MB
34 D-TOX ENVIRONMENTAL CONTRACTORS, INC.	60 Ezra Silva Lane	Windsor	CT	06002	(860) 242-9953	Same	Jeffrey Graves, Vice President	DTCG84-00-A-100051	02/03/00	02/03/01	B/O/H/D/A/SW/ V	1	JM SP
36 EARTH TECHNOLOGY, LLC	250 Sackett Point Road	North Haven	CT	06473	(203) 230-2040 (203) 230-0302 fax	Same as Previous	Anthony Richardi	DTCG84-99-A-100041	03/26/99	03/26/01	B/O/H/D/A/SU/ V/DS	1	JM SP
45 ENVIRONMENTAL SERVICES, INC. (CT)	90 Brookfield Street	South Windsor	CT	06074	(860) 528-9500	Same as Previous	Bruce Devaney, Administrative Manager	DTCG84-01-A-100064	10/23/98	09/13/00	B/O/H/SU/V	CT, RI, MA	JM SP
67 KROPP ENV SERV INC	26 Bushnell Hollow Road	Sprague	CT	06330	(860) 822-1660	Same	Sally Kropp	DTCG84-00-A-100052	03/28/00	03/28/01	B/O/H/D/A/SU/ V	1	JM SP
111 THE TYREE ORGANIZATION, LTD	125 Commerce Drive	Brookfield	CT	06804	(203) 740-8200	Same as Previous	Stephan Tyree	DTCG84-99-A-100046	08/11/99	10/24/01	B/O/H/D/SU	1,5	JM SP
54 GUARDIAN	1280 Porter Road	Bear	DE	19701	(302) 834-1000 ext 275	Same as Previous	Dave McGuigan	DTCG84-98-A-500025	08/01/98	09/26/01	O/H	5	MP SP
1 A & A COASTAL POLLUTION CLEANUP SERVICES, INC.	P. O. Box 5028	Tampa	FL	33675, 33605	(813) 248-6055	3209 East 3rd Avenue	Wendy Rennert	DTCG84-99-A-700044	11/05/98	11/19/00	B/O/H/V	7	CE SP
3 AMERICAN COMPL. TECH. INC	1875 State Road 60 (Main Street)	Barton	FL	33830	(863) 533-2000	Same	Robert Kincart	DTCG84-00-A-700071	10/2/2000	10/2/2001	O/H	7	CE SP
12 CAPE CANAVERAL MARINE SERVICE	350 Imperial Blvd.	Cape Canaveral	FL	32920	(407) 868-0670	Same as Previous	James Bell	DTCG84-99-A-700053	06/01/99	06/01/01	B/O/H/D/A/V	1, 5, 7	CE SP
18 CLEAN CARIBBEAN CO-OP	2381 Sterling Road	Ft. Lauderdale	FL	33312	(954) 983-9880	Same as Previous	Paul Schuler	DTCG84-98-A-700041	09/10/98	09/10/99	CO-OP	7	SP JS
23 CLIFF BERRY, INC.	P. O. Box 13079	Fort Lauderdale	FL	33316	(954) 763-3390	851 Eller Drive, Ft. Lauderdale,	Larry Doyle	DTCG84-99-A-700043	10/26/98	11/10/00	B/O/H/D/A/V/D	7	CE SP
32 DIVERSIFIED ENVIRONMENTAL SRV.	1201 North 22nd St	Tampa	FL	33065	(813) 248-3256	Same as Previous	Gerry McCormick	DTCG84-99-A-700063	08/31/99	08/31/01	B/O/D/V	5,7,8	CE SP
37 EARTHCARE DBA MAGNUM ENVIRONMENTAL SERVICE	1280 N. E. 48th Street	Pompano Beach	FL	33064	(954) 785-2320	Same	Dennis Williams, Vice President	DTCG84-00-A-700069	05/12/00	05/12/01	B/O/H/D/A	7	CE SP
43 ENVIRONMENTAL RECOVERY, INC.	251 Levy Road, P. O. Box 330569	Atlantic Beach	FL	32233-0569	(904) 241-2200	Same as Previous	Steven Jenkins	DTCG84-99-A-700061	07/23/99	07/23/01	B/O/H/D	7, 8	CE SP
51 FLORIDA SPILL RESPONSE CORP.	P. O. Box 1847	Cocoa	FL	32923	(407) 631-7778	605 Townsend Road, Cocoa, FL 32926	Martin Koivu	DTCG84-99-A-700060	07/22/99	07/22/01	B/O/H/	7	CE SP
70 LOGAN DIVING	5731 St. Augustine Rd.	Jacksonville	FL	32207	(904) 731-0000	Same as Previous	Jack Mixer	DTCG84-99-A-700055	06/30/99	06/30/01	B/O/H/V/T/DS	7	CE SP
72 MARINE INDUSTRIAL SERVICES, INC.	2308 Larsen Road	Jacksonville	FL	32207	(904) 346-3266	Same as Previous	Thomas J. Sween, President	DTCG84-00-A-700068	10/07/97	04/22/01	B/O/H/	7	CE SP
95 RESOLVE TOWING & SALVAGE, INC.	2550 Eisenhower Blvd., Suite 204	Port Everglades	FL	33316	(954) 764-8700	Same as Previous	Mauricio Garrido	DTCG84-99-A-700064	09/23/99	10/13/01	B/O/H/S/V/T/D	7	CE SP
98 SEA SPILL SOUTH, INC.	420 U.S. Highway 1 #15H North Palm Beach	North Palm Beach	FL	33408	(561) 844-6228	Same as Previous	Les Hall	DTCG84-99-A-700065	10/07/99	10/07/00	B/O/V/D	7	CE SP

BRIGHT YELLOW- UPDATED INFO
 GREEN- BEHIND SCHEDULE
 RED- BOAS TO BE CANCELLED

BOA IN EFFECT LIST

COMPANY	ADDRESS	CITY	ST	ZIP CODE	PHONE	STREET ADDRESS	POC	BOA NO.	ORIG. BOA DATE	RENEWAL DATE	TYPE OF SERV	DIST. SERV. AREAS	SPEC INIT.	
101	SOUTHERN WASTE SERVICES	1619 Moylan Road	Panama City Beach	FL	32407	(850) 234-3174	Same as Previous	James Weber	DTCG84-99-A-700050	03/26/99	03/26/01	B/O/H/D	7, 8	CE SP
104	SPIRIT MARINE	911 W. Indies Drive	Ramrod Key	FL	33042	(305) 872-2752	Same as Previous	Duke & Brandi Pontin	DTCG84-99-A-700045	11/10/98	02/11/00	B/O/H/D/A/V/T/D	7	CE SP
110	THE MURPHY CONSTRUCTION COMPANY	1615 Clare Avenue	West Palm Beach	FL	33402	(561) 655-3634	Same as Previous	Joseph Keegan	DTCG84-99-A-700056	06/22/99	06/22/01	B/O/H/V/T/D	7	CE SP
112	TITAN MARITIME INDUSTRIES, INC.	P. O. Box 350465	Ft. Lauderdale	FL	33335	(954) 929-5200	410 S.W. 4th Terrace	Richard B. Fairbanks	DTCG84-00-A-700070	06/01/00	06/01/01	B/O/H/D	1,5,7,9	CE SP
118	USL CITY ENVIRONMENTAL SERVICES OF FL, INC	7202 East 8th Ave	Tampa	FL	33619	(813) 623-5302 X236	Same	Ed Kinley	DTCG84-99-A-700048	02/12/99	02/12/01	D/A/D	7	CE SP
116	TURECAMO ENV SERV INC	504 E. River Street	Savannah	GA	31401	(912) 232-3224	Same as Previous	David Morton (843) 577-7714 S.C.	DTCG84-99-A-700062	09/23/99	09/23/01	B/O/H/V/T	7	CE SP
57	HERITAGE ENVIRONMENTAL SERVICES, INC	15330 Canal Bank Road	Lemont	IL	60439	(630) 739-1151 x208	Same as Previous	Mr. Millman	DTCG84-98-A-800050	06/10/98	06/10/01	B/O/H/D/A	8, 9	MP MB
4	AMERICAN ENVIROMENTAL SERVICES, INC	5700 Prospect Drive	Newburgh	IN	47629	(812) 858-3151 (812) 858-3155 fax	Same	Howard Nevins, PRES	DTCG84-99-A-800070	04/12/99	04/12/01	O/H	8,9	MP MB
66	KOESTER ENVIRONMENTAL SERVICES, INC.	7925 Burch Park Drive	Evansville	IN	47711-1787	(812) 867-0100	Same as Previous	Eric Dodd, President CEO Andy	DTCG84-00-A-800095	05/31/00	05/31/01	B/O/H/D/A	5, 7, 8, 9	JD MB
78	NATIONAL INDUSTRIAL MAINTENANCE	4530 Baring Avenue	East Chicago	IN	46312-3209	(219) 398-6660	Same as Previous	William A. Dennison	DTCG84-98-A-900032	04/02/99	03/10/01	B/SU	9	MP MB
56	HAZ MAT RESPONSE, INC.	1203C S. Parker Street	Olathe	KS	66061	(913) 782-5151 (913) 782-6206 fax	Same as Previous	Jack Stockdale, Executive V.P.	DTCG84-98-A-800054 (M-Z)	08/01/98	08/31/01	B/O/H/V	KS, MO, OK, NE, IA, AR	JD MB
2	AIRBORNE SUPPORT, INC.	3626 Thunderbird Rd.	Houma	LA	70363	(504) 851-6391	Same as Previous	Howard Barker	DTCG84-97-A-800033	10/08/96	02/10/01		1,5,7,8,9	MR MB
5	AMERICAN POLLUTION CONTROL	3808 Commerical Drive	New Iberia	LA	70560	(337) 365-7847	Same as Previous	Kevin Rizeo Kirk Headley	DTCG84-99-A-800071	01/05/99	01/05/02	B/O/SM/V	1, 5, 7, 8, 9	MR MB
9	BISSO MARINE COMPANY, INC	P. O. Box 4113	New Orleans	LA	70178-4113	(504) 866-6341	Same as Previous	Jim Calhoun	DTCG84-99-A-800077	02/26/99	02/26/01	SM/V	2,7,8	MR MB
15	CHARLES HOLSTON, INC.	Highway 90 East P. O. Box 728	Jennings	LA	70546	(318) 824-8184	2200 Hwy. 90	Craig Holston	DTCG84-00-A-800098	10/30/00	10/30/01	B/O/SU	7, 8	MR MB
28	CROSS OFFSHORE CORP.	1304 Engineers Road	Belle Chase	LA	70037	(504) 394-3506	Same as Previous	Dennis Cross	DTCG84-99-A-800084	07/26/99	07/27/01	SM/V	8, 2, 5	MR MB
30	DIAMOND SERVICES CORPORATION	P.O. Box 1286	Morgan City	LA	70381-1286	(504) 631-2187	Same	Wallace Carline	DTCG84-00-A-800096	9/12/2000	9/12/2001	SM/SS	8	MR MB
41	ENVIRONMENTAL EQUIPMENT, INC.	P. O. Box 646	Houma	LA	70361	(504) 868-3100	626 Hobson Street	Ronald Johnson Lionel Johnson	DTCG84-99-A-800074	01/25/99	01/25/02	B/O/SM/D	8	MR MB
44	ENVIRONMENTAL SAFETY AND HEALTH CONSULTING SVS, INC DBA CENAC ENVIRONMENTAL SERVICES	1730 Coteau Road	Houma	LA	70361	(504) 851-5350	1724 Coteau Road	Trey Boucvalt	DTCG84-00-A-800097	08/17/00	08/17/01	B/O/H/V	8	MR MB

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55	GULF COAST ANALYTICAL, INC.	7979 GSRI Avenue	Baton Rouge	LA	70820	(225) 769-4900	Same as Previous	Pat Byrne, President	DTCG84-98-A-800044	04/09/99	04/09/01	A/V	ALL DISTRICTS	MR MB
60	INDUSTRIAL CLEANUP, INC.	129 ICI Lane Highway 54 P.O. Box 866	Garyville	LA	70051	(504) 535-3174	Same as Previous	Rusty Johnson	DTCG84-99-A-800062	01/26/99	01/26/01	B/O/H	8	MR MB
64	J. B. ENVIRONMENTAL, INC.	P. O. Box 218	Axis	LA	36505-0186	(334) 675-6432	1289 Deadlake Rd., Creola, AL 36525	Jerry Bailey	DTCG84-98-A-800047	01/13/98	02/02/01	B/O/SS/V	7, 8	MR MB
68	L & L ENV. SERVICES	307 Bunker Road	Lake Charles (Metairie)	LA	70615	(318) 436-6385 (800) 207-7745 (504) 538-5191 PGR	Same as Previous	David Zachary Dan Killans Trent Schlinger (504) 812-6025	DTCG84-99-A-800086	08/11/99	08/11/01	B/O/H/D/V	8, LA	MR MB
74	MARSHLAND MARINE OF HOUMA	P. O. Box 2265 1409 West Tunnel	Houma	LA	70361	(504) 872-1263	Same as Previous	Mike Waller	DTCG84-99-A-800076	02/11/99	02/11/01	V	7, 8	MR MB
77	NALTY ENVIRONMENTAL SERVICES, L.L.C. D/B/A OIL MOP	P. O. Box 56981	New Orleans	LA	70156-6981	(504) 394-6110	145 Keating Drive Bellechasse LA 70037	Donald Nalty, Jr., President	DTCG84-99-A-800059	01/21/99	01/21/01	B/O/H/V	ALL DISTRICTS Primarily 8	MR MB
91	PHILLIP SERVICES/LOUISIANA INCORPORATED	149 Keating Drive	Bell Chase	LA	70037	(504) 393-6863	P. O. Box 7126	George Marcum	DTCG84-98-A-800052	07/21/98	09/10/01	B/O/H/V	7, 8	MR MB
96	RUBARK TECHNICAL SERVICES LLC	4925 Jefferson Hwy Suite E	Jefferson	LA	70121	(504) 733-8899 FAX: (504) 733-0720	Same as Previous	Robert Barkerding	DTCG84-99-A-800078	04/26/99	04/26/01	B/O/H/V	8	MR MB
99	SHERRY LABS	2417 W. Pinhook Road. P.O. Box 81816	Lafayette	LA	70508-3306	(337) 235-0483	Same	Carlyle Bourgeois	DTCG84-00-A-800090	03/30/00	03/30/01	A	8,9	MR MB
102	SPECIALTY DIVERS	PO BOX 2853	Hammond	LA	70404	(504) 542-8770 (fax) 345-7602	Same	Guy Tetrean and Debra Wallace	DTCG84-99-A-800085	10/15/99	10/04/01	D	8	MR MB
106	SUPERIOR DIVING COMPANY	P.O. BOX 966	Harvey	LA	70059-0966	(504) 392-3700 (713) 910-1875 (713) 202-6445	Same	Mike Rentfrow	DTCG84-00-A-800089	06/01/00	06/01/01	D	8	JD MB
117	UNITED STATES ENVIRONMENTAL SERVICES, L.L.C.	2809 E. Judge Perez	Meraux	LA	70075	(504) 279-9930 (888) 279-9930 Mobile Office. Mike	Same	Charles A. Lanoux, Vice President	DTCG84-98-A-800046	11/07/97	08/17/01	B/O/V	8	MR MB
21	CLEAN HARBORS ENV. SRV.	1501 Washington St.	Braintree	MA	02184	(781) 849-1800 ext. 1268 (800) 282-0058 ext. 1268 Fax: (781) 380-1403	Same as Previous	Paul Hickman	DTCG84-99-A-100042	04/28/99	04/28/01	B/O/D/A/SU/V DD/DS	1, 5, 7, 8, 9	JM SP
29	CYN OIL CORP, INC	1771 Washington Street	South Boston	MA	2072	(781) 341-1777	Same as Previous	Richard Bell	DTCG84-99-A-100048	11/19/99	11/19/00	B/O/H/D/A/SU/V/T/D	1	JM SP
40	ENPRO SERVICES, INC.	12 Mulliken Way	Newburyport	MA	01950	(978) 465-1595	Same as Previous	David Cowie, CEO	DTCG84-98-A-100040	01/07/99	12/22/00	B/O/H/SM/SS/D/A/V	1	JM SP
50	FLEET ENVIRONMENTAL SERVICES, INC.	59 Longwater Drive	Norwell	MA	02061	(781) 982-7200	Same as Previous	Brian House	DTCG84-99-A-100038	12/19/98	11/17/00	B/O/H/D/A/SU/V	MA	JM SP
52	FRANK CORPORATION	615 Tarklin Hill Rd	New Bedford	MA	02745	(508) 995-9997	Same as Previous	Chris Blake	DTCG84-00-A-100057	05/17/00	05/17/01	B/O/H/D/A/SU/V/DS	1	JM SP
122	ZECCO. INC.	345 W. Main Street	Northboro	MA	1532	(508) 351-9660	Same as Previous	Brian Francis	DTCG84-99-A-100034	10/22/98	10/13/00	B/O/H/D/A/SU/V	1, 5, 7	JM SP

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7	ATLANTIC ENVIRONMENTAL	506 Pulaski Hwy	Joppa	MD	21085	(410) 538-6000	Same	Robert Murray	DTCG84-00-A-500094	10/3/2000	10/3/2001	B/O	5	MP SP
115	TRI COUNTY INDUSTRIES	5135 Frolich Lane	Hyattsville	MD	20781	(301) 937-8611	Same	Steve Wurtz Glenn Selzer	DTCG84-99-A-500028	03/12/99	02/02/01	B/O/H	5	JD SP
119	USL ENVIRONMENTAL SERVICES, INC dba/A&A ENVIRONMENTAL SERVICES	5700 Raynor Ave	Linthicum Heights	MD	21090	(800) 404-8037	Same	Rick Rasmussen	DTCG84-99-A-500031 MOD 0001	07/22/99	09/14/01	/D/A	5	JD SP
19	CLEAN CASCO BAY	P.O. BOX 387	Portland	ME	04112	(207) 828-4511	48 Union Wharf	John Moore Ferland	DTCG84-00-A-100054	04/11/00	04/11/01	O/B	1	SP JS
39	ENMANCO, INC.	42826 North Walnut	Mt. Clemens	MI	48043	(810) 468-4320	Same as Previous	Gary H. Domanski	DTCG84-98-A-900033	06/18/98	08/14/01	B/SU/V/T	9	MP MB
47	EQ INDUSTRIAL SERVICE INC	3650 Carpenter Road	Ypsalanti	MI	48197	(734) 677-8822	Same as Previous	Tom Handyside	DTCG84-99-A-900041	09/30/99	09/30/00	B/SU/V	8,9	MP MB
71	M. L. CHARTIER, INC.	9195 Marine City Hwy., P. O. Box 230069	Fair Haven	MI	48023-0069	(810) 725-8373	Same as Previous	Bill Slaughter, Project Manager	DTCG84-98-A-900026	10/02/97	06/25/01	B/SU/V/T	9	MP MB
73	MARINE POLLUTION CONTROL CORP.	8631 W. Jefferson	Detroit	MI	48209	(313) 849-2333	Same as Previous	Marilyn Stamper Michael Snyder	DTCG84-99-A-900040	04/08/99	03/24/01	B/A/SU/V	1, 5, 7, 8, 9	MP MB
80	NORTHERN A-1 SERVICES, INC.	2305 U. S. 131 N.	Kalkaska	MI	49646	(616) 258-9961 Fax #9971	Same as Previous	Eddie Ascione	DTCG84-98-A-900030	12/05/97	12/06/00	B/SU/V	9	MP MB
105	STENBERG BROS.	1315 Highway US 2 & 41	Bark River	MI	49807	(906) 466-9908	Same as Previous	Carl Stenberg	DTCG84-98-A-900034	06/18/98	07/15/01	B/SU/V	9	MP MB
63	J & D SERVICES OF N. MN, INC.	5592 Lane 580	Aurora	MN	55705	(218) 865-4744	Same	Daniel Charles Rogers, Vice- President	DTCG84-98-A-900031	03/26/99	02/25/01	B/SU/V/D	9	MP MB
88	OSI ENVIRONMENTAL, INC.	300 Fayal Street	Evelen	MN	55734	(218) 744-3064	Same as Previous	Patrick Tracey, Branch Manager	DTCG84-99-A-900036	10/29/98	11/05/00	B/SU	8 & 9	MP MB
46	ENVIRONMENTAL SPECIALISTS	3001 East 83rd Street	Kansas City	MO	64132	(816) 523-5081	Same as Previous	Alan Wolfe	DTCG84-99-A-800063	01/27/99	01/27/01		8, MO	MR MB
25	CONTAMINANT CONTROL INC	438-C Robeson Street 311 Judges Road Suite 12F	Fayetteville Wilmington	NC	28301 28405	(910) 484-7000 (910) 512-7820 (Wilmington)	Same	Scott Perez Dale McLean	DTCG84-00-A-500032	11/15/99	11/15/00	B/O/H	5	JD SP
100	SOUTH EAST RESPONSE & REMEDIATION, INC.	P. O. Box 221	Wilmington	NC	28402	(910) 763-6274	4920 Highway 421 N.	William Murrell	DTCG84-01-A-500096	11/07/00	11/07/01	B/O/H	5	JD SP
113	TOTAL WASTE MANAGEMENT CORP.	142 River Road	Newington	NH	03801	(603) 431-2420 Fx. (603)431-3806	Same as Previous	Donald Littlefield, President	DTCG84-99-A-100047	09/28/99	12/15/00	B/O/H/SU/V	1	JM SP
6	AQUA-TEX TRANSPORT, INC.	P. O. Box 1204	Hammonton	NJ	08037	(609) 567-8280	219 North White Horse Pike	Allen Campione	DTCG84-99-A-500033	08/17/99	09/22/00	B/O/H	1,5	JM SP

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22	CLEAN VENTURE, INC.	201 First Street	Elizabeth	NJ	07206	(908) 355-5800 (908) 355-3495	Same as Previous	Mike Persica	DTCG84-00-A-100061	08/21/00	08/21/01	B/O/H	1, 5	JD SP
33	DON JON MARINE CO., INC.	1250 Liberty Avenue	Hillside	NJ	07205	(908) 964-8812	Same as Previous	John Witte	DTCG84-99-A-100037	03/26/99	03/26/01	B/O/H/SM/SS/ F/N/T/DD/DS	1, 5, 7, 8, 9	JM SP
58	HMH TTC	P. O. Box 5215	Parsippany	NJ	07054	(973) 335-6696 ext 14	333 Littleton Road	Scott Turner	DTCG84-00-A-100059	10/01/96	08/08/01	B/O/H/DA/SU/ V/DS	1, 5	JM SP
65	KEN'S MARINE	116 East 22nd Street	Bayonne	NJ	07002	(201) 339-0673	Same as Previous	David Poesi	DTCG84-00-A-100055	04/17/00	04/17/01	B/O/D/A/F/SU/ V/DS	1, 5, 7, 8, 9	JM SP
82	NORTHSTAR MARINE, INC.	8300 Landis Avenue	Sea Isle City	NJ	08243	(609) 263-6666	Same	Phillip W. Risko, President	DTCG84-98-A-500021	10/22/97	02/15/00	B/O/H/SU/V/D	1,5	MP SP
84	OHM REMEDIATION SERVICES CORPORATION	200 Horizon Ctr Blvd.	Trenton	NJ	08601-1904	(609) 584-6866	Same as Previous	James Walker, V.P. Lew Kipness	DTCG84-99-A-800066	10/23/98	10/22/00	B/SU/V	1, 5, 7, 8, 9	MP MB
93	PREMIER ENVIRONMENTAL SERVICE	P.O. Box 429	Middlesex	NJ	08846	(732) 569-5900	131 Wood Avenue	Floyd Campbell	DTCG84-00-A-100053	5/30/2000	5/30/2001	B/O/U/S/V	1,5	JM SP
97	S & D ENVIRONMENTAL	2 Gourmet Lane	Edison	NJ	08837	(732) 432-5566	Same as Previous	Ed Twilley	DTCG84-00-A-100058	06/22/00	06/22/01	B/O/H/D/A/SU/ V/DS	1, 5	JM SP
121	WEEKS MARINE INC.	216 N. Avenue East	Cranford	NJ	07016-2497	(908) 272-4010	Same as Previous	Dan Schwall	DTCG84-00-A-100050	02/03/00	02/03/01	B/O/H/SM/SS/ F/SU/V/T/DD/D S	1	JM SP
24	COASTAL ENVIRONMENTAL TECH., LTD.	1600 New Highway	Farmingdale	NY	11735	(631) 420-3800	Same	Richard C. Silva, Jr., President	DTCG84-99-A-100045	06/28/99	06/28/01	B/O/H/D/A/SU/ V/D	1	JM SP
42	ENVIRONMENTAL PRODUCTS & SERVICES, INC.	P. O. Box 315	Syracuse	NY	13209	(315) 471-0503	532 State Fair, Syracuse, NY 13204	Kenneth Freer	DTCG84-98-A-100033	10/15/98	11/13/00	B/O/H/D/A/SU/ V	1	JM SP
75	MILLER ENVIRONMENTAL GRP	538 Edwards Ave.	Calverton	NY	11933	(631) 369-4900	Same as Previous	Mark Miller	DTCG84-98-A-100030	09/11/98	07/21/00	B/O/H/D/A/SU/ V/D	1, 5	JM SP
79	NATIONAL RESPONSE CORPORATION	446 Edwards Avenue	Calverton	NY	11933	(631) 369-8644 X416	Same as Previous	Chris Ward	DTCG84-99-A-100039	06/14/99	06/14/00	B/O/H/V	ALL DISTRICTS	JS
81	NORTH AMERICAN ENVIRONMENTAL SERVICES	9 Monroe Street	Troy	NY	12180	(518) 266-0542	Same	Doug Ernst	DTCG84-99-A-100043	05/24/99	05/24/00	B/O/H/D/A/SU	1,9	JM SP
86	OP TECH. ENVIRONMENTAL SERVICES, INC.	P. O. Box 2158 Deere Road	Syracuse	NY	13206	(315) 463-1643	Same as Previous	Chris Paldanio	DTCG84-99-A-900037	11/19/98	11/19/00	B/O/H/D/A/SU/ V/D	9	JM SP
114	TRADE-WINDS ENVIRONMENTAL RESTORATION, INC.	100 Sweeneydale Avenue	Bayshore	NY	11706	(631) 435-8900	Same	Larry Vetter, Project Manager	DTCG84-00-A-100049	10/28/97	01/29/01	D/A/SU/V/D	1,5,7,8,9	JM SP
11	C & W TANK CLEANING, INC.	50 N. Lallendorf	Oregon	OH	43616	(419) 691-1995	Same as Previous	Randy Rall	DTCG84-99-A-900039	01/25/99	02/11/01	B	9, OH	MP MB
17	CHEMTRON CORP.	35850 Scheider Court	Avon	OH	44011	(440)937-6348	Same as Previous	Karl Guenther, VP	DTCG84-99-A-900038	12/10/98	12/20/00	B	9 Anywhere in US	MP MB
62	INLAND WATERS OF OHIO	2195 Drydock Avenue	Cleveland	OH	44113	(216) 861-3949	Same as Previous	Claude Kubrack, VP/GM	DTCG84-98-A-900028	10/07/97	07/01/01	B/SU/V	Primarily 9 Contit. US.	MP MB

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90	PHILIP SERVICES "DBA" COUSINS WASTE CONTROL CORP	1801 Matzinger Rd	Toledo	OH	43612	(419) 726-1500	Same as Previous	Barry Cousins	DTCG84-98-A-900035	08/10/98	10/10/01	B/SU/V	9, OH, MI, MN, IN, WI, IL, PA, KY	MP MB
89	PETROCLEAN, INC.	2 Darrington Road P. O. Box 92	Carnegie	PA	15106	(412) 279-9556	Same as Previous	Drew McCarty	DTCG84-98-A-800057	09/04/98	11/13/00	B	PA, WV, OH	MP MB
94	REACT ENVIRONMENTAL	6901 Kingsessing Ave.	Philadelphia	PA	19142	(215) 729-2777	Same as Previous	Scott Bunker	DTCG84-97-A-500016	01/10/97	12/01/00	B/O/H/D	1, 5	MP SP
120	WEAVERTOWN ENVIRONMENTAL GROUP, Division of Weavertown Transport Leasing, Inc.	206 Weavertown Road	Canonsburg	PA	15317	(724) 746-4850	Same as Previous	Trevor Waligura	DTCG84-99-A-800069	12/10/98	01/07/01	B/D/A/SU/V	5, 8, 9	MP MB
14	CARIBBEAN ENV SERVICE	PO BOX 1838	Guayrobo	PR	00970	(787) 731-0055	Same	Oscar Rehera	DTCG84-00-A-700054	01/05/00	01/05/01	V/D/S/O/H	7	CE SP
13	CARIBE HYDROBLASTING CORP.	Road 385 Km. 4.4, P. O. Box 790	Penuelas	PR	00624-0790	(787) 836-1110	Same as Previous	Angel Serrano	DTCG84-99-A-700049	03/02/99	03/02/01	B/O/H/D/A	PR	CE SP
59	INDUCHEM ENVIRONMENTAL SERVICES, INC.	P. O. Box 364153	San Juan	PR	00936-4153	(787) 720-6868	State Road 20 Kilometer 5.0 Frailes Ind. Park Cubita Sector Guaynabo, PR 00969	Luis Rodriquez	DTCG84-99-A-700057	07/13/99	07/13/01	B/O/H/A/V	7	CE SP
83	OCHOA INDUSTRIAL SALES CORP.	P. O. Box 363968	San Juan	PR	00936-3968	(787) 788-8000	Road 869, Street 2, Westgate Industrial Park Catano , PR 00962	Maria Theresea Mendez	DTCG84-00-A-700066	10/29/99	10/16/01	B/O/H	7	CE SP
16	CHARLESTON MARINE SERVICE	874 Mikell Drive	Charleston	SC	29412	(843) 795-4699	Same	Joe/Cora Beasenburg	DTCG84-99-A-700052	08/11/99	08/11/01	B/O/H/T	7,5	CE SP
38	EASON DIVING & MARINE CONTRACTORS, INC.	2668 Spruill Avenue	Charleston	SC	29405	(843) 747-0548	Same as Previous	Thomas Eason	DTCG84-99-A-700046	11/10/98	11/30/00	B/O/H/V/D	7	CE SP
48	FENN-VAC, INC.	P. O. Box 62679	North Charleston	SC	29419	(843) 552-8306	141 Fennell Road	Jeff Forslund	DTCG84-99-A-700051	03/11/99	03/11/01	B/O/H/SU/V/T	7,5,8	CE SP
49	FERGUSON HARBOUR, INC.	65 Industrial Park	Henderson-ville	TN	37075	(334) 626-3295 (615) 822-3295	Same as Previous	Willie Snead Mr. Bailey	DTCG84-00-A-800094	12/18/96	05/27/01	B/O/H	5, 7, 8	JD MB
10	BOOTS & COOTS SPECIAL SERVICES	11355 Highway 225	LaPorte	TX	77571	(281) 470-0444	Same as Previous	Tim Cox Dan Little	DTCG84-00-A-800088	10/09/99	10/27/01	B/O/H	8	JD MB
20	CLEAN CHANNEL ASSOCIATION	111 East Loop North Room 270	Houston	TX	77029	(713) 676-1318	Same as Previous	Edward Roe	DTCG84-98-A-800056	09/09/98	09/09/99	CO-OP	8 Texas Gulf Area	MB JS
26	CORPUS CHRISTI AREA OIL SPILL CONTROL	P.O. Box 717	Corpus Christi	TX	78403	(361) 882-2656	Same as Previous	Tom Salazar Carl Christenson	DTCG84-99-A-800075	04/19/99	04/19/01	B/V	8	JD MB
31	DISPOSAL SOLUTIONS	P.O. Box 2863 6754 Leopard St. Corpus Christi TX 78409	Sherman	TX	75091	(903) 546-6876 (361) 852-3718 (361) 852-3728 (FAX)	2.5 Miles/Ball Road	Jim Brooks	DTCG84-00-A-800081	10/26/99	11/01/01	B/O/H	8	JD MB
53	GARNER ENVIRONMENTAL SERVICES	1717 West 13th Street	Deer Park	TX	77536	(713) 920-1300	Same as Previous	Otis Chambers	DTCG84-00-A-800099	09/21/98	09/21/01	B/O/H	8	MR MB
76	MILLER ENVIRONMENTAL SERVICES, INC.	600 Flato Road	Corpus Christi	TX	78405	(361) 289-9800	Same as Previous	John Perabo	DTCG84-98-A-800049	04/08/99	04/14/01	B/O/H	8	JD MB

BRIGHT YELLOW- UPDATED INFO
 GREEN- BEHIND SCHEDULE
 RED- BOAS TO BE CANCELLED

BOA IN EFFECT LIST

COMPANY	ADDRESS	CITY	ST	ZIP CODE	PHONE	STREET ADDRESS	POC	BOA NO.	ORIG. BOA DATE	RENEWAL DATE	TYPE OF SERV	DIST. SERV. AREAS	SPEC INIT.	
87	ONYX INDUSTRIAL SERVICES, INC	1980 N. Highway 146	La Porte	TX	77571	(713) 307-2114	Same as Previous	Mike Kocian	DTCG84-00-A-800092	03/06/00	03/06/01	O/H	8	JD MB
92	PNEUMATIC INDUSTRIES, INC	PO BOX 490	Orangefield	TX	77639	(409) 735-9121	Same	Chris Hyde	DTCG84-99-A-800082	08/21/99	08/21/01	O/H	8	MR MB
103	SPILL RESPONSE, INC.	US 59 Frontage Road W	Edna	TX	77957	(512) 782-7651	Same as Previous	James Hunt	DTCG84-99-A-800080	06/17/99	06/17/01	B/O/H/D/A/V	8	JD MB
108	T & T MARINE SALVAGE, INC.	9723 Teichman Road	Galveston	TX	77554	(409) 744-1222	Same as Previous	Kevin Teichman	DTCG84-99-A-800073	01/29/99	01/29/00	B/O/ SM/SS	8	JD MB
109	TEXAS ENVIRONMENTAL INCORPORATED	50 Garrett Road	Ingleside	TX	78368	(361) 776-3100 (361) 776-0697 FAX	Same	Jason Malone	DTCG84-98-A-800055 (M-Z)	08/20/98	09/05/01	B/O/H/V	8	JD MB
27	CROFTON DIVING CORPORATION	16 Harper Avenue	Portsmouth	VA	23707	(757) 397-1131	Same	Bob Crofton	DTCG84-99-A-500030 (M-I)	09/01/99	09/01/01	B/O/DD/DS/V	5	JD SP
35	EARTH TECH INC	7870 Villa Park Drive Suite 400	Richmond	VA	23238	(804) 515-8300	Same as Previous	P.J. Smith	DTCG84-00-A-500094	08/30/00	08/30/01	B/O	1,5,7,9	JD SP
61	INDUSTRIAL MARINE SERVICE (IMS) INC.	1301 Marsh Street	Norfolk	VA	23501-1779	(757) 543-5718	Same as Previous	John Parker Mike Kelly	DTCG84-99-A-500027	10/07/98	10/14/00	B/O/H	5	JD SP
69	LCM CORPORATION	P.O. Box 13487	Roanoke	VA	24034	(540)344-5583	Same	Lawrence Musgrove III, President	DTCG84-00-A-500035	11/10/99	11/16/00	B/O/H	5,8	JD SP
107	SUPERIOR SPECIAL SERVICES	100 West Larsen Drive	Fond du Lac	WI	51937	(414) 284-9011	Same as Previous	Richard Burgard	DTCG84-97-A-900025	02/20/97	10/13/00	B/A/SU/V/D	9	MP MB

**APPENDIX C — FACILITY CLASSIFICATION, DISCHARGE PLANNING VOLUMES,
RESPONSE DISTANCES**

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C.1 INTRODUCTION

This appendix contains information and derivations to establish:

- The harm classification for the various components of this complex facility.
- The tiered oil discharge planning volumes, the response capabilities required, and the discharge planning distances under the EPA and USCG OPA 90 implementing regulations.
- The complex facility's tiered oil discharge planning volumes, required response capabilities and discharge planning distance. The discharge planning volumes, the response capabilities and discharge planning distances addressed in this FRP are the largest computed under the EPA and USCG OPA 90 implementing regulations.

C.2 TABLES

The following tables contain the information described in Section C.1:

Table Appendix C.1, MTR Facility Classification — The Mobile MTR facility of NAS Key West is a substantial harm facility under the USCG regulations. This table shows the applicable criteria for this classification.

TABLE APPENDIX C.1 MTR FACILITY CLASSIFICATION (USCG)	
Mobile MTR facility capable of transferring oil to and from vessel with capacity of 250 bbls or more?	
CHECK	CLASSIFICATION
X	Yes, MTR facility is a substantial harm facility
	No, maximum capacity of vessel serviced is _____ bbls and 33 CFR 154 does not apply unless otherwise determined by the COTP
	No, facility is not a mobile MTR facility and 33 CFR 154 does not apply
Fixed MTR onshore facility used or intended to be used to transfer oil to and from vessel with capacity of 250 bbls or more?	
	Yes, MTR facility is a significant and substantial harm facility
	No, maximum capacity of vessel serviced is _____ bbls and 33 CFR 154 does not apply unless otherwise determined by the COTP
	No, facility is not a MTR facility and 33 CFR 154 does not apply

The largest tank truck used by NAS Key West has a capacity of 8,000 gallons, so 8,000 gallons is the worst-case discharge for the mobile facility. All response planning calculations will be based on the NTR facility.

Table Appendix C.2, NTR Facility Classification – The NTR facility of NAS Key West is a substantial harm facility under the EPA regulations. This table shows the applicable criteria for this classification.

TABLE APPENDIX C.2 NTR FACILITY CLASSIFICATION	
Maximum oil storage capacity is <u>1,150,050</u> gallons. Is this greater than 42,000 gallons <u>and</u> do operations include over-the-water transfers of oil to and from vessels?	
CHECK	CLASSIFICATION
X	Yes, NTR facility is a substantial harm facility and a response plan is required.
If no, is the maximum oil storage capacity equal to or greater than 1 million gallons?	
	No, a response plan submission is not required unless required by the EPA Regional Administrator.
If yes, is there secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground tank plus sufficient freeboard to allow for precipitation within each storage area?	
X	No, NTR facility is a substantial harm facility and a response plan submission is required.
If yes, is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments or shut down a public drinking water intake?	
X	Yes, NTR facility is a substantial harm facility and a response plan is required.
If no, has the facility had a reportable spill in an amount equal to or greater than 10,000 gallons within the past 5 years?	
	Yes, NTR facility is a substantial harm facility and a response plan is required.
	No, a response plan submission is not required unless required by the EPA Regional Administrator.

Table Appendix C.3, Data for Deriving NTR Facility Discharge Planning Volumes — This table contains facility data for computing the worst-case discharge planning volume for the NTR facility.

TABLE APPENDIX C.3 DATA FOR DERIVING NTR FACILITY DISCHARGE PLANNING VOLUMES				
FACILITY OPERATING AREA		Inland/Nearshore		
TYPE(S) OF OIL HANDLED (I, II, III, AND IV)				
TYPE OF OIL	TOTAL CAPACITY STORED WITH ADEQUATE SECONDARY CONTAINMENT (gals)	TOTAL CAPACITY STORED WITHOUT ADEQUATE SECONDARY CONTAINMENT (gals)	TOTAL FACILITY STORAGE CAPACITY (gals)	CAPACITY OF LARGEST AG TANK IN SECONDARY CONTAINMENT (gals)
	[A]	[B]	[C]	[D]
Type I	1,128,050	3,835	1,150,050*	298,000
STORAGE CAPACITY OF PERMANENTLY MANIFOLDED TANKS				
OIL TYPE	MANIFOLDED TANK NUMBERS		COMBINED CAPACITY (gals) [E]	
None				

* Includes underground storage tank capacity: 22,000 gal.

Table Appendix C.4, NTR Facility Worst-Case Discharge Volume For Type I Oil.

TABLE APPENDIX C.4 NTR FACILITY WORST-CASE DISCHARGE VOLUME FOR TYPE I OIL		
CHECK and OIL TYPE	CRITERIA AND METHOD	WORST-CASE DISCHARGE VOLUME (gals)
I	Total facility capacity stored without adequate secondary containment:	3,835
I	Capacity of largest aboveground storage tank stored in adequate secondary containment:	298,000
I	Worst-case discharge=	301,835

Table Appendix C.5, Worst-Case Discharge On-Water and Onshore Recovery Planning Volumes for Type I Oil, NTR Facility — This table computes the required tiered on-water oil recovery, onshore oil recovery, and temporary recovered oil storage capacities for the worst-case discharge of Type I oil.

TABLE APPENDIX C.5 WORST-CASE DISCHARGE ON-WATER AND ONSHORE RECOVERY PLANNING VOLUMES FOR TYPE I OIL, NTR FACILITY					
EMULSIFICATION FACTOR	% RECOVERED FLOATING OIL	% OIL ONSHORE	ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS		
[A]	[B]	[C]	TIER 1 [D]	TIER 2 [E]	TIER 3 [F]
1.0	0.20	0.10	0.15	0.25	0.40
TIERED ON-WATER RECOVERY PLANNING VOLUMES					
TIER 1 (gals/day) (WORST-CASE VOLUME)(A)(B)(D)		TIER 2 (gals/day) (WORST-CASE VOLUME)(A)(B)(E)		TIER 3 (gals/day) (WORST-CASE VOLUME)(A)(B)(F)	
9,055		15,091		24,146	
REQUIRED CAPABILITY FOR RESPONSE ACTIVITIES IN SHALLOW WATER					
Note: 20% of water recovery capability must be able to operate in water depths equal to or less than 6 ft, i.e., 20% of the above recovery capability for each tier.					
TIER 1 (gals/day)		TIER 2 (gals/day)		TIER 3 (gals/day)	
1,811		3,018		4,829	
ONSHORE RECOVERY PLANNING VOLUME (gals) (WORST-CASE VOLUME)(A)(C)		TEMPORARY OIL STORAGE CAPACITY 2x DAILY OIL RECOVERY RATE			
		TIER 1 gals/day	TIER 2 gals/day	TIER 3 gals/day	
30,182		18,110	30,182	48,292	

Table Appendix C.6, Discharge Planning Volume Summary for Complex Facility — This table summarizes the tiered discharge planning volumes for each regulated component of the complex facility. The complex facility's tiered discharge planning volumes are the greater of the respective NTR and MTR discharge planning tiers.

TABLE APPENDIX C.6 DISCHARGE PLANNING VOLUME SUMMARY FOR COMPLEX FACILITY			
FACILITY COMPONENT	SMALL/AVERAGE MOST PROBABLE DISCHARGE (gals)	MEDIUM/MAXIMUM MOST PROBABLE DISCHARGE (gals)	WORST-CASE DISCHARGE (gals)
MOBILE MTR	80	800	8,000
NTR	2,100	30,183	301,835
BULK PACKAGING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
COMPLEX FACILITY	2,100	30,183	301,835
<p>Notes:</p> <p>For MTR facility: Average most probable is lesser of 2,100 gals or 1% of worst-case discharge volume. Maximum most probable is lesser of 50,400 gals or 10% of worst-case discharge volume.</p> <p>For NTR facility: Small is less than or equal to 2,100 gals, but not greater than the worst-case discharge volume. Medium is up to 36,000 gals or 10% of the worst-case discharge volume, whichever is the least.</p> <p>For complex facility: The small/average most probable, medium/maximum most probable and worst-case discharges are the greater of the respective NTR and MTR discharge planning tiers.</p>			

Table Appendix C.7, Facility Response Planning Distance – This table establishes the response planning distance for the types of oil handled at the facility and the characteristics of the water receiving the worst-case discharge.

TABLE APPENDIX C.7 FACILITY RESPONSE PLANNING DISTANCE				
OIL TYPE	CHECK	TYPE OF WATER	RESPONSE DISTANCE PLANNING METHOD	DISTANCE IN MILES FROM FACILITY
I		Nontidal	24 hrs X (maximum current) mph	N/A
I	X	Tidal-Ebb	5 miles or to point of maximum tidal influence, whichever is less	5
I	X	Tidal-Flood	5 miles or to point of maximum tidal influence, whichever is less	5
II, III, IV, V, Non-petroleum		Nontidal	48 hrs X (maximum current) mph	N/A
II, III, IV, V, Non-petroleum		Tidal-Ebb	15 miles or to point of maximum tidal influence, whichever is less	N/A
II, III, IV, V, Non-petroleum		Tidal-Flood	15 miles or to point of maximum tidal influence, whichever is less	N/A

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APPENDIX D — LIST OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCE RELEASES

This section contains the current (November 1998) EPA Title III Consolidated List of Chemicals that identifies EPA reportable quantities (RQs) for hazardous substances. All updates that EPA publishes should be included in this section as amendments to the RQ list.

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